Online Connectivity: A Social Study of Educators’ Affinity for Teaching and Learning Using Social Media

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ONLINE CONNECTIVITY: A SOCIAL STUDY OF EDUCATORS’ AFFINITY FOR TEACHING AND LEARNING USING SOCIAL MEDIA

A DISSERTATION

Submitted to the Faculty of Montclair State University in partial fulfillment of the requirements for the degree of Doctor of Philosophy

by

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2018

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TEACHING AND LEARNING USING SOCIAL MEDIA

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ABSTRACT

ONLINE CONNECTIVITY: A SOCIAL STUDY OF EDUCATORS’ AFFINITY FOR TEACHING AND LEARNING USING SOCIAL MEDIA

by Beverly R. Plein

This qualitative study investigated an online space for educators, known as #sschat, for the purpose of helping to inform and shape more formal professional learning experiences. Participants were able to engage in asynchronous and synchronous discussions related to social studies education by interacting in any of the four hashtags associated with the #sschat affinity space (i.e., #engsschat, #hsgovchat, #sschat, #worldgeochat), the #sschat Facebook page, the archived #chat sessions, and/or by contributing to the creation of the weekly #worldgeochat questions.

Seven common elements of Gee’s affinity spaces conceptual framework were used to frame this study. This framework drew attention to the practices of self-directed learners who were guided by their passions related to teaching and learning. By engaging as an insider during this one-month study of #sschat, I was able to consider what was happening in this affinity space from the participants’ perspective. I collected and analyzed more than 6,000 tweets and almost 300 Facebook posts along with the websites associated with the #sschat affinity space and shared by the participants. The question that guided this study was: what could be learned from online spaces such as #sschat that can help inform and shape more formal professional development experiences.

Through a deep analysis of the data, three important findings emerged that help to provide insight into the types of experiences that are likely to be valued by educators and
conducive to learning. The first finding concerns how the diverse experiences and needs of the participants seemed to affect the interactions that occurred in the #sschat affinity space. The second key finding involved how the combination of social media platforms and functions, participants’ knowhow and experiences, and their practices appeared to contribute to a participatory environment that facilitated a wide range of interactions in support of social studies education. The third key finding of my study suggests that professional learning is a personal experience; educators want the ability to choose with whom they interact, the design of the space, and the manner in which they engage in these experiences. Digital technologies were leveraged by participants making it possible for them to engage in crowdsourcing, reflective thinking, and role-shifting activities. This study expands the notion of affinity spaces beyond a space for individuals to engage in activities involving their personal interests and passions. A deep analysis of the data suggests that affinity spaces may also be beneficial for professionals, such as educators who want to engage in experiences involving teaching and learning.
ACKNOWLEDGMENTS

Writing this acknowledgment is an opportunity to reflect upon my dissertation experience and draw attention to the many people who have supported me throughout this journey.

I would like to offer my special thanks to my advisor, Dr. Emily Klein, who remained steadfast in her support, encouraged me to “just keep writing,” and gave me the time and space to learn how to balance telling stories with my data to reporting findings to the field. I would also like to express my deep gratitude to my committee members. Dr. Michele Knobel, for broadening my horizons, helping me find my voice, and patiently guiding me in my journey of “becoming” a novice researcher. Dr. Reva Jaffe-Walter, for sharing her perspective and offering valuable advice in unassuming ways. Dr. Suzanne McCotter, for asking the type of questions that kept me wondering and seeking to know more.

I want to acknowledge Dr. Ana Maria Villegas for her efforts in overseeing the Teacher Education/Teacher Development program and for serving as a model of excellence. My warm and sincere appreciation goes to all of my Montclair State University professors who graciously shared their knowledge as educators and researchers, and who, each in their own way acted as mentors: Dr. Carolan, Dr. Herr, Dr. Larkin, Dr. Lucas, Dr. Nadich, Dr. Price, Dr. Robinson, Dr. Fives, and Dr. Taylor.

My family deserves the deepest gratitude, particularly my husband, Peter, who understood how important this journey was to me and for always doing everything he could to make it easier for me. To my son, Chris, who remained curious about my work,
his willingness to share his knowledge about digital technologies, and for writing an app
to collect the 6,000 tweets. To my daughter-in-law, Sarah, who listened to me talk about
my data for countless hours and provided valuable feedback. To my extended family,
who stood by me lending support and serving as models that each of us—in our small
ways—can make the world a better place.

I am forever grateful to my critical friends (“lunch bunch”), cohort members, and
doc study group who patiently listened to my stories, answered my questions, were
willing to share their perspectives, and provide the type of honest feedback that is needed
to push forward. While the dissertation writing process may not have happened as
“fastly” as I had hoped, you helped me to understand it took just the right amount of time
for me.

Finally, to the participants of the #sschat affinity space, I offer my sincere
admiration for the manner in which you engaged in innovative and public ways so we
may all learn from you and your commitment to one another, to “becoming” better, and
to the most noble of professions, teaching.
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It’s hard to remember how different life was like when access to people, new ideas, and information was not instantly available. This was the way of the world I lived in growing up and during the first decade of my teaching career. Sure there were opportunities to gain access to knowledge from libraries, book stores, and college campuses but this required time and transportation to go to places where learning could happen. When I lived in my family home, there was a single phone in the center of the house for everyone to use. It came with many restrictions. There were certain times of the day when calls could be made or received (never during meal times, not after 8:00pm or before 9:00am), call length was limited (no call waiting), and no toll calls without special permission. This meant that there was no communication with friends that lived in different area codes just a few miles away (from church, sport teams or other activities). My only communication with family members when I went to college was through letter writing. I enjoyed the letters my mom wrote; but it often took weeks to get answers to questions I had about things such as the health of family members.

As a student, I was every teacher’s dream. I followed rules, was interested in learning all I could about every subject, and completed assignments beyond the stated expectations. I knew in first grade that I wanted to be a teacher and did all I could to prepare myself for this career in high school and college. What I found out was that although I took all the college courses required and graduated summa cum laude, to be a
“good” teacher meant that I would always need to keep learning.

When I started teaching, words like collaboration and co-construction of knowledge were not common. Standards were not yet conceived and differentiated instruction was just beginning to make its way into educational journals. I knew I had much to learn about “being” a teacher but felt very isolated. There were two teaching positions in my department. I started as leave replacement and for three years, the other teachers took turns going out on maternity leaving me to be the only stable teacher amidst a multitude of leave replacements. The lesson plans left for me to follow did not serve to create the type of engaging classroom that I had imagined was the role of a teacher. Anxious to understand how other “good” teachers in my school crafted their lessons, I sought out ideas by listening to the interactions that were occurring as I walked by their classrooms. I went to the faculty rooms hoping to find rich, thoughtful discussions about learning, but left disappointed. Even as a first year teacher, I was very aware that students learned in different ways and was not comfortable with the idea that I, as their teacher, should be telling them what they should know. Intuitively I believed that schooling would be a more enjoyable experience if students had choice about how they engaged in learning experiences and if the experiences were designed to be relevant to the students’ lives. I attended state conferences in anticipation of hearing from teachers who were teaching differently but again this was not a place of inspiration. In my early years, I was not as comfortable taking risks as I am now. I was (still am) a creative person and problem-solver. I needed to see others being successful teaching differently to be comfortable stepping out my “comfort zone.” I wasn’t looking to “copy” what other
teachers did; I was curious how other teachers were teaching as a way to consider what I might do to make learning more relevant for my students.

The birth of the internet was a monumental paradigm shift for me. It provided access to people, ideas, and knowledge every day, all day long. I was able to reach out and connect with other people (including those I didn’t know) and gain access to information whenever I wanted. I was no longer restricted to specific times of the day when I could communicate with others; nor was I constrained by geographic location. To be sure, there were many limitations then compared to today’s world—where ordinary people of every age from preschoolers to octogenarians (and older)—are taking advantage of access to high speed internet and wireless devices of every size and price point. But, at the time, the ability to connect and interact with educators and others who saw the potential of sharing ideas and resources was life-changing for me regardless of how slow dial-up connections were and the expense associated with computers.

My (asynchronous) exchanges with one Australian teacher stand out as a useful example of the type of influence that interacting with others had on my teaching. In her school, preparing students for careers in building aircraft meant providing experiences in which students had the opportunity to construct a plane in a real hangar. Now that was an example of the type of real-world learning experiences that I imagined would engage students. Instead of reading about how to do something, students were learning by doing. And, while my students would not be “building” any type of aircraft, it was easy for me to take that idea that clearly had a “purpose” for learning and construct my own “real-world” learning experiences that would bridge what I was supposed to teach about to
something students were interested in and had meaning outside of school in the real
world.

The internet provided what seemed like unlimited access to information. I could
learn about almost anything I needed to know “to be a better” teacher and could find
answers to all sorts of things of which I wondered. I was able learn about what other
“good” teachers were doing by reading listserv responses where they posted stories that
reflected their classroom experiences. I was able to stay current by reading the latest
research and professional journals. As internet access became more ubiquitous, my quest
to find others around the world who were also interested in connecting and sharing ideas
was made easier by new devices (e.g., smart phones) and services (e.g., social media)
(see Chapter 2 for more discussion about how shifts in technology affected how people
connected to others involving shared interests). It is difficult to capture in words the
tremendous impact having almost unlimited access to people, ideas, and knowledge has
had on my personal and professional life. But, without any doubt, it has had a significant
influence on the person I have become. Likewise, I see it as having incredible potential
for providing opportunities for all educators to connect and interact regarding topics
related to teaching and learning.

What I have described above is one of two stories I have to tell that brought me to
conceive this specific study. The second involves my position within a state department
of education in which my work primarily revolves around supporting students, teachers,
and administrators in areas related to teaching and learning, particularly with regard to
curriculum and instruction. I was invited to work at the department as a 21st century
specialist with the expressed purpose of supporting colleagues at the department and more than 600 districts in preparing students for life beyond high school living in a global society. Trying to provide a concise explanation of what I do on a daily basis would be difficult. But, in simple terms, among a long list of responsibilities that are relevant to this study, I believe my greatest contribution in this position is as an “opportunity maker.” For example, I design and lead professional development for teachers and administrators to learn about current department initiatives, particularly those involving social studies education, problem-based learning, and global literacy. In addition, I partner with various government agencies and non-profit organizations and make connections among educators and districts as a way to bring a wide range of resources to people who might find them valuable (e.g., students, teachers, administrators, higher education, pre-service teachers, parents). I am constantly looking to connect and learn from others who have similar and different experiences that might be beneficial for my work. As there are always new initiatives and research to be considered, an important aspect of my work is to reflect upon what has been done in the past and design innovative strategies to address current challenges based on limited resources.

It has been my observation that many educators¹ and people who work at the department are content with waiting for their superiors to tell them what to do. I am not the type of person to be satisfied if I think there might be a “better” way to do something. My experiences of being exposed to different ideas have resulted in my understanding

¹ I use the term educators to refer to anyone involved in some way with educating students, particularly those working in schools or at the district level (e.g., teachers, media specialists, paraprofessionals, child study team members, school counselors, supervisors, principals, administrators).
that meeting a desired goal may look different depending on the skills people bring to the space and the context in which the experience takes place. I have found there are multiple ways of accomplishing a task and the people involved likely desire opportunities for their voice to be heard and choice with regard to how they engage in the experience.

I have shared these stories as a way to explain that while others who have studied online space for educators have found some obvious reasons for participation (e.g., access to resources, support, camaraderie), my journey in this study has been more complicated. In keeping with my desire to know more, I was not satisfied with simply documenting findings in support of other studies. I needed to understand the why and how behind the interactions that were happening within this space. The story that the data told was anything but simple; in fact, I found it to be a very complex, highly complicated study that required countless hours of analysis and reflection to make meaning of what was happening in the online space for educators (#sschat). There were always multiple perspectives that needed to be considered with regard to the interactions that took place. On the surface—to those not intimately involved with online spaces for educators—the interactions may have appeared like simple transactions among participants that had something to share. As will be discussed in my findings chapters, the interactions were part of a multifaceted process that involved the participants, the experiences (or lack of) they brought to the space, and leveraging of digital technologies (including their affordances) in particular ways to support an intended outcome. Having described what brought me to this study in terms of my personal and professional interests, I now turn to discuss the importance of my study in relation to the field of
In a little more than one decade, social media use in the United States has increased drastically; increasing from approximately five percent of the adult population using it in 2005 to almost 50% by 2011. Currently, Pew researchers indicate that seven in ten adults use at least one form of social media (Social Media Fact Sheet, 2018). It may be for this reason that a variety of state education agencies (Wang, 2016), national professional organizations (NEA, 2015), and national technology standards, (ISTE, 2017) have promoted the use of social media as a means by which educators can connect and interact regarding topics related to teaching and learning. In fact, the Office of Educational Technology (United States Department of Education)—in the most recent update of its National Education Technology Plan—has recommended “state, district, university, and community organization leaders should establish cohesive communities of practice—in person and online—to create virtuous cycles for sharing the most recent research and effective practices in the use of educational technology” (USED, 2017, p. 53). These recommendations have been made even though there is a limited body of rigorous studies that provide insights into how social media supports teacher learning (Moon, Passmore, Reiser, and Michaels, 2014).

It cannot be assumed that the use of social media will garner “magical” results when it comes to teacher learning any more than the use of technology resulted in transformative learning experiences for all students (see critique in Knobel & Kalman, 2016). For instance, research shows that state educational agencies in the United States have struggled with how to use Twitter in meaningful ways. An analysis of 71,913
tweets from the official Twitter accounts of 40 state educational agencies revealed that while they were able to use it as a service to promote one-way communication, they fell short of engaging with the public in a collaborative manner (Wang, 2016). This serves as a useful example to illustrate that social media or technology, by itself, does not cause learning or collaboration as might be interpreted from the ideas put forth in the latest version of the National Education Plan (USED, 2018). With that said, results from the most recent Teaching and Learning International Survey (TALIS) (Organisation for Economic Co-operation and Development (OCED), 2014) indicate that educators worldwide have found attending professional development experiences problematic because of time, cost, and availability—factors which might be addressed by providing access to online experiences designed for teacher learning. Taking into consideration federal recommendations and international survey results, there appears to be reason to study online spaces for educators for the intended purpose of applying what can be learned from those spaces to more formal professional development.

As will be discussed in Chapter 2, there is much that we know from the research that has documented the interactions of individuals who voluntarily connect with others around the world regarding their shared passions. By way of example, individuals have engaged in online spaces involving activities related to areas of personal interest such as fan-fiction writing (Black, 2008), engaging in video games and associated activities (Duncan, 2012; Durga, 2012; Hayes & Duncan, 2012), and literacy practices (Curwood, 2013; Curwood, Magnifico, & Lammers, 2013; Lammers, Curwood & Magnifico, 2012; Lewis, 2014; Magnifico, 2012). Findings from these studies show that individuals seek
help, provide resources, and act as audience members and mentors providing guidance and feedback in authentic ways in online spaces designed for these purposes.

In a similar way, educators from around the world have been voluntarily participating in discussions about professional topics, sharing knowledge and resources, and providing support to one another in online spaces that were created (and maintained) by individuals and groups through grassroots efforts, by state and national professional education organizations, and university/school partnerships (Farooq, Schank, Harris, Fusco, & Schlager, 2007) for almost two decades. Seely Brown and Gray (1995) argue that spaces developed by grassroots effort are particularly desirable to some because they are built on the practices and tacit knowledge of educators with similar interests. One example and the basis of this proposal, that is particularly fascinating, is a space known as #sschat. #sschat was created by two social studies educators, Ron Peck and Greg Kulowiec, who had regularly participated in #edchat but wanted to engage in Twitter #chats that were more focused on teaching social studies. As a result, they created #sschat in 2010. Over the past seven years, this space (known as #sschat) has expanded to include many portals—multiple synchronous Twitter #chats (#sschat, #engsschat, #hsgovchat, #econchat, #worldgeochat), a Facebook page, an online newspaper (The #sschat Daily), online book clubs, blogs, a repository of resources (e.g., files, media) as well as face-to-face encounters (e.g., EdcampSS, workshop sessions, unconferences, dinners and meet ups at various professional conferences) (Krutka, 2017). Participants in

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2 #edchat is the name of a synchronous Twitter #chat for educators interested in all aspects of teaching. Synchronous Twitter #chats occur synchronously and on a regular basis (e.g., same day/time each week or month). A topic and 6-8 #chat questions are determined in advance. I use hashtag (#) symbol before #chat to make it clear that I am referring to the synchronous #chat experience and not a brief conversation (chat) between participants.
this space interact around topics related to social studies education by posting to any of
the daily Twitter feeds associated with #sschat, engaging in weekly synchronous #chats,
and/or posting comments to the #sschat Facebook page. Co-leaders/moderators of each
of the Twitter #hashtags associated with #sschat are responsible for overseeing the
synchronous #chat sessions but efforts are made to reduce any influences from the type of
hierarchal structures found in schools. Ideas, in the form of teacher knowhow,
experiences, and resources come from the participants. Annually, the #sschat
unconference is an opportunity for participants to meet up in a face-to-face environment
and engage in participant-driven sessions related to social studies education.

**Call for Research**

The call for research by two distinct groups of educational researchers has placed
a spotlight on the need to study online spaces for educators for the intended purpose that,
in fact, is closely related to my research interests. As part of the group whose interests lie
in understanding the impact of professional development, Moon and colleagues (2014)
have argued that the launch of national education reform initiatives (e.g., Common Core
State Standards, Next Generation Science Standards) has resulted in the need for
professional development that uses “innovative approaches” (p. 172) as a way to address
the complex instructional shifts as well as issues of scale. They propose that online
spaces may be one way to support teachers desiring to make instructional shifts but
caution that additional research focused on theory-building is needed to better understand
how technology might be used to “structure and support learning interactions” (p. 175).
Similarly, Desimone and Garet (2015) contend there is a need for further research
regarding the five features that they have identified as essential for professional development experiences in different contexts as a way to better understand “why some PD (professional development) works and some doesn’t” (p. 260). In a slightly different way of thinking about professional development research, Kennedy (2016) proposes that we “do not have well-developed ideas about teacher learning” and espouses a need to know more about understanding how “teachers incorporate ideas into their ongoing systems of practice” (p. 973).

Speaking on behalf of the educational researchers interested in online spaces for educators, Wesely (2013) had asserted a need for teacher educators to better understand how teachers design spaces where they go to learn. While her study examined the characteristics of world language educators who participated in synchronous #chat sessions over the course of one year, she emphasized the need to expand this type of study to other types of online groups.

To be sure there is a need for rigorous empirical studies regarding online spaces for educators because we do not know enough about what is happening in these spaces and the implications they might have for teacher education and teacher development. Critics of this field of research have noted that there is cause to move beyond evaluation of programs and activities and to design empirical studies that meet expectations of rigorous standards of if we are going to have a deeper conceptualization of what is happening in these online spaces research (Blitz, 2013; Curwood & Biddolph, 2017; Cochran-Smith & Zeichner, 2010; Dede, Ketelhut, Whitehouse, Breit, & McCloskey, 2008; Opfer, & Pedder, 2011). It has been difficult to build upon the work of other
researchers in this field because of the emerging and evolving nature of digital devices and technologies. For example, increased access to high-speed internet access, more affordable mobile devices, and new types of online collaborative spaces (e.g., social media, 3D virtual worlds) have all impacted the type of experiences that educators can have online (USED, 2018). As a result, educators—who are designing these online spaces—continually leverage digital technologies in new and different ways for their purposes making it difficult to use similar research designs. Finally, much of the research in this field is atheoretical, making it difficult to understand the complex interactions that are happening (cf., see critique in Cochran-Smith & Zeichner, 2010) in these online spaces and to make claims about what type of contribution, if any, these online spaces make to teacher education and teacher development.

**Statement of Purpose**

As discussed earlier, my responsibilities at the department of education include designing and leading professional development experiences related to current education reform initiatives involving large numbers of educators from a wide range of educational settings (e.g., public, charter, and independent schools, higher education, government agencies, community organizations). Currently my work reflects some of the examples of national education reform initiatives discussed earlier (e.g., Common Core State Standards). However, this study is envisioned to provide more general insights that could be applied to any type of formal professional development that is in response to any new national initiatives or areas of interest related to teaching and learning. In thinking about the calls for research discussed above, it seems appropriate to turn to the types of online
spaces for educators that I have engaged with in support of my own learning and interests because I believe there is much to be learned from how the experiences in these online spaces are constructed. With that in mind, it is my intention in this study is to examine a specific online space for educators (#sschat) for the purposes of understanding how the design of this space and the types of interactions that occur among the participants might shed light on important considerations for developing the type of formal professional development experiences that are reflective of my work at the department of education. Therefore, the question that guides this study is: what can be learned from online spaces, such as #sschat, that can help inform and shape more formal professional development experiences.

This study offers several insights into the types of experiences that educators appear to find conducive for sharing their knowhow and experiences (e.g., collaborative, reflective, role-shifting). This is important because it has been reported that teachers need to learn in, from, and for practice (Lampert, 2009). It cannot be assumed that bringing educators together will result in learning. Thus, identifying how to design spaces that will attract participants and foster knowledge sharing is likely to be valuable. Moreover, the findings from this study are likely to make an important contribution to the field of professional development because they offer nuanced understandings of how the five features believed to be essential for face-to-face professional development experiences (Desimone, 2009; 2011a; Desimone et al., 2013; Desimone & Garet, 2015; Guskey & Yoon, 2009) are actualized in online spaces created by educators.

It is conceivable that this study will contribute to multiple fields of research (i.e.,
professional development, online spaces for educators, affinity spaces) by demonstrating how Gee’s (2005) affinity space conceptual framework can provide explanatory power in ways that other more commonly used frameworks in educational research might not.

With respect to the fields of professional development and online spaces for educators, my research question and study design are guided by a conceptual framework outside of the typical learning theories that are traditionally used in teacher education research. As such it draws attention to aspects of the study that may not have been uncovered by other theoretical or conceptual frameworks. Within the field of affinity spaces, this study expands the understanding of an affinity space as one inhibited by people who share similar personal interests to one that attracts people who share similar passions regarding their professional interests.

I come to this study with a sense of optimism with regard to what can be learned from online space for educators. For example, my own experiences engaging in these spaces have expanded my thinking with regard to how teachers can make learning relevant to students and provided insights related to how technology could be leveraged to support educators interact around professional topics. I believe in this study, my insider knowledge helped me see beyond resource sharing as a primary activity in #sschat and uncover some of the complexities that are inherent in the interactions within online spaces for educators. Engaging in this research study as an insider made it possible for me to experience the interactions within the #sschat space in the same manner as other participants. As a result, this approach brought increased understandings that would not likely be realized by other researchers who read transcripts of the posts, surveys or
In this chapter, I briefly drew attention to the recommendations made by various education stakeholder groups to use social media for the purpose of connecting and supporting interactions among educators regarding topics related to teaching and learning. Examples of how people with various personal and professional interests have been engaging online around topics in which they share a passion for the past two decades were briefly discussed with the understanding there will be a more in-depth discussion of these experiences in Chapter 2. I shared multiple calls for research that illustrate a need for a study similar to the one that is the foundation of my dissertation. A brief description of the purpose of my study was provided along with the assumptions I brought to this experience and the contributions I intend for the study to make to the literature. I now turn to outline the structure of this dissertation and then move onto a discussion of the literature that is relevant to this study.

Chapter 2 contextualizes the study in the relevant literature of two bodies of research: online spaces for educators and professional development. I introduce Gee’s (2005) conceptual framework of affinity spaces on which this study is based. A description of the data collection and analysis processes comprises Chapter 3. In Chapters 4, 5, and 6, I provide findings and related discussions. Chapter 7 offers an overarching discussion related to the study findings, recommendations for policymakers, practice, and research, and reflections of my experiences as a researcher.
CHAPTER 2 LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

To answer the question that guides this study—what can be learned from online spaces, such as #sschat, that can help inform and shape more formal professional development experiences—it was necessary to have a solid understanding of two fields of study. I begin this literature review with a brief examination of the research of online spaces and consider how people use these spaces in their personal lives to connect with others based on shared interests. This review of literature is intended to provide the reader with the necessary background and contextual understanding to appreciate what happens in online spaces for educators. Then, I provide a discussion of the empirical research of online spaces for educators highlighting those aspects that are important considerations for my study and are significant to the field of teacher education. Next I argue Gee’s (2005) conceptual framework of affinity spaces has the explanatory power needed to address my research question. Then I turn to explore the professional development literature as a way to consider what can be learned from online spaces for educators in light of what the research says about designing effective professional development experiences.

Digital Technologies Enable Opportunities for People to Connect and Interact

Researchers have found that the internet in combination with digital technologies has impacted how individuals choose to live their lives, connect with others, work, and learn (Borko Whitcomb, & Liston, 2009; Wellman et al., 2003). To appreciate the nature of the interactions in online spaces for educators today, there is a need to understand how and why these spaces evolved. Indeed, scholars posit that it is important to have a
historical perspective to gain a solid understanding of a particular field of research (Boellstorff, Nardi, Pearce, & Taylor, 2012).

I begin this section by discussing some key features of early online spaces as a way to provide some historical context of how people connected based on their personal interests before the rise of online spaces for educators. For purposes of brevity, I focus on the work done by Barry Wellman and Howard Rheingold, two well-known researchers in this field. Then, I consider how the introduction of new digital technologies impacted accessibility to online spaces and the type of interactions that were made possible. Finally, I examine how these online spaces provide opportunities for people to engage in collaborative learning experiences.

**Networked and Virtual Communities**

More than three decades ago, Wellman and colleagues (1979, 1996, 2001, 2003, 2005) introduced the term, “networked communities” to describe the spaces where individuals from around the world connected with like-minded people to share information, provide support, and interact in social ways. The researchers argued that “computer supported social networks” (CSSN) provided a new way to think about community. Previously, they asserted the notion of community was associated with the local neighborhood and the type of discourse that occurred when people met at parks, cafes, and pubs. For those technically savvy individuals with the financial resources to have a computer connected to the internet, CSSNs provided global access to people or work centers at a time when long distance phone calls were quite expensive (in comparison to today’s times). From the beginning, researchers believed that people
wanted “to link globally with kindred souls for companionship, information, and social support from their homes and workstations” (Wellman, Salaff, Dimitrova, Garton, Gulia, & Haythornthwaite, 1996, p. 214).

Over time, the internet facilitated the “move from densely-knit and tightly-bounded groups to sparsely-knit and loosely-bounded networks” (Wellman et al., 2003, n.p.) resulting in new ways for individuals, organizations, and governments to interact. According to Wellman and colleagues, the connections among individuals (ties) and the associations they have to other individuals and organizations were an important benefit of networked communities. These second degree connections, known as “weak ties,” were perceived as quite valuable despite what their name indicates. To illustrate, imagine the only AP Physics teacher in a district tells her online network that she would like to connect with other AP Physics teachers. Someone in her online network knows an AP Physics teacher in another network and makes an introduction to that person (a weak tie). The ability to connect with teachers of the same subject is important because research indicates that professional learning experiences should focus on a teacher’s content area and how students should learn that content (Desimone, 2011a; Desimone & Garet, 2015; Guskey & Yoon, 2009; Hill, Beisiegel, & Jacob, 2013). Teachers of singleton subjects may benefit from connecting in online spaces with other teachers of the same subject. Singleton in this case refers to a course that is taught by only one teacher in the school or district. This often occurs in rural areas where there are not enough students for multiple sections to be offered or when the content focus in so specialized that only a limited number of students take the course (e.g., Advance Placement courses).
Rheingold and colleagues (1993, 2008, 2014) viewed online spaces as useful for individuals seeking intellectual stimulation, interesting discussions, a collaborative environment for problem-solving, and a place to get or give support. Like Wellman (1996), Rheingold (2014) believed that individuals were attracted to online spaces based on their shared interests rather than other characteristics such as gender or social status. He argued that online spaces have an advantage over traditional face-to-face meeting places because people are more likely to focus on what is being said rather than the physical characteristics of the person (e.g., age, gender, ethnicity) providing the information.

Rheingold was credited with coining the term, “virtual communities,” to describe online spaces where people with similar interests share ideas. As a point of comparison, he believed that participants in “virtual communities” tended to feel a greater sense of commitment and sought to develop stronger relationships with other participants in these spaces than in Wellman’s “networked communities.” In more recent years, the notion of “community” has been critiqued by other researchers (Gee, 2005; Gee & Hayes, 2012; Levine, 2010; Schlager & Fusco, 2003) because it is difficult to interpret what is meant by the term. Rheingold’s early work around virtual communities involved a space affectionately referred to as the WELL (Whole Earth 'Lectronic Link), which was founded in 1985. The number of early participants in this space was limited (in comparison to later years when it was in the thousands) and they were quite homogenous with respect to demographics and interests. Although the distinction may not be important for my study, those terms (networked communities and virtual communities)
have certain connotations which have implications for how these spaces and their interactions are viewed by people who are highly versed in these specialized areas of study (boyd & Ellison, 2007; Gee, 2005; Gee & Hayes, 2012; Schlager & Fusco, 2003). 

Another benefit of participating in online spaces is gaining access to people who serve as filters of the vast amount of information available on the internet (Rheingold, 2014). In online spaces, responses to requests for information or resources are typically vetted by people with similar interests and possibly, expertise in the area of inquiry. This is important because many teachers report that insufficient access to resources has made it difficult to implement the type of instructional approaches that are required by these new education reform initiatives (Killion, 2013; Marrongelle, Sztajn, & Smith, 2013; Tucker, 2011). My study may shed light on the types of environments that are conducive to resource sharing which is likely to be useful for pre-service teachers and/or to aid others in meeting new educational reform initiatives.

Rheingold (2014) found that crowdsourcing and collective intelligence are part of a type of collaboration that was made possible by the internet and participation in online spaces (cf. Seely Brown & Adler, 2008). Rheingold (2014) explains that the idea of collective intelligence comes from the understanding that no one knows everything and everyone knows something. Gee and colleagues assert that in affinity spaces collective knowledge is promoted and nurtured (Gee, 2007, 2012; Gee & Hayes, 2010, 2012; Hayes & Duncan, 2012). This is worth noting because Desimone (20101a) has argued that one hallmark of effective professional learning experiences is the opportunity for educators to engage in activities as part of a learning community (i.e., collective participation) but
many teachers report that they do not have these types of opportunities available at their school (cf. Darling-Hammond, Wei, Andree, & Richardson, 2009). Studies have shown that teachers benefit from opportunities to learn in groups because they can take advantage of their insider status as they co-construct knowledge together. In addition, these educators are likely to try new things and take risks as a result of the supportive relationships that have formed during this process.

New Technologies Enable New Types of Interactions

Over the past ten years, new ways to access and post on the internet (e.g., wireless connectivity, smartphones, social media) have made it possible for ordinary individuals to create and participate in online spaces at a time and place of their choosing. Previously, creation of and participation in early online spaces was limited to a privileged group of individuals with computer expertise who were able to overcome barriers associated with geographic, economic, and time constraints. At that time, interactions typically involved posting on bulletin boards or sending emails and then waiting for a response. People were willing to persevere despite challenges (e.g., unreliable and slow internet access, hardware and software incompatibility) they faced because of the benefits to their personal and professional lives (Rheingold, 2014).

This paradigm shift—made possible by the availability of user-friendly digital technologies—changed what ordinary people could do on the internet. Individuals moved from “consumers” of information posted on the internet to creators of their own social platforms (using Nings, Wikis, etc.) where people with similar interests (personal and professional) could be “producers” of information/resources and engage in
collaborative experiences (Lankshear & Knobel, 2011). In some ways, this shift reflects what has happened in the area of teacher development. To illustrate, consider the new type of interactions that are made possible when a district moves from a workshop model led by outside experts to a group of teachers engaging in a learning community. In the first method, teachers are given instructional strategies to implement in their classrooms with little regard to their own abilities or needs of their students. In the latter approach, teachers are engaged in constructing knowledge collaboratively based on their own experiences and the students in their classrooms (Desimone, 2011a; Desimone & Garet, 2016; Kalman, & Guerrero, 2013; Klein, 2007; Knobel & Kalman, 2016; Riordan & Klein, 2017). Understanding the shift made possible by new digital technologies is important to my study because it signifies the beginning of a pattern of behaviors in which people leverage and adapt digital technologies in support of their needs and interests (e.g., desire to connect with like-minded people, share resources). To date, there is a dearth of studies that describe how this pattern of behaviors—that has impacted what is happening in online spaces for educators—has been leveraged to inform and shape more formal professional learning experiences.

Lankshear and Knobel (2011) argue that the internet enables access to people, in addition to information and resources. New types of online spaces were created to embrace distributive expertise and tacit knowledge as a way to support practitioners as they engaged in “the practice of what John Dewey called ‘productive inquiry’—that is, the process of seeking the knowledge when it is needed in order to carry out a particular situated task” (Seely Brown & Adler, 2008, p. 20). In a way, online spaces can be
viewed as “setting the stage” for social learning experiences (Lankshear & Knobel, 2011, p. 223). These new digital technologies are not solutions but rather are viewed as services that when employed by knowledgeable people can “personalize the learning experience” (Hinrichs, 2003, p 29), “aid and motivate users” (Dede, 2004, p. 7) and “create a participatory architecture for supporting communities of learners” (Seely Brown & Adler, 2008, p. 29).

To be clear, I am not claiming that learning is absolutely happening in these spaces. My study is intended to examine the nature of the interactions in these online spaces as a way to think about how to design spaces conducive to learning in more formal professional learning experiences. Indeed, there may be more to know about how and why educators interact in online spaces that relates to their sense of professional satisfaction or being collegial (Harris & Anthony, 2001). Such findings might contribute to a teacher’s desire to be part of a learning community within their school or affect the effectiveness of the experiences that particular members in that group have. In the next section, I examine what the research literature says about what is happening in online spaces for educators.

**Online Spaces for Educators**

It is not surprising that educators who have embraced the use of digital technologies in their personal lives also leveraged them to support professional activities such as connecting with other educators to ask questions about instructional practices, sharing knowledge and resources, offering and requesting support, and engaging in collegial discussions (Borko et al., 2009; boyd & Ellison, 2007; Carpenter & Krutka,
Online connectivity: A social study

The popularity of these spaces is attributed to, among other elements, the fact that they can evolve/change to meet the needs and interests of participants as a result of emerging technologies and innovative thinking (Lammers & Magnifico, 2012; Lieberman, 2000; Putnam & Borko, 2002). Dede (2004) posits that “emerging devices, tools, media, and virtual environments provide novel ways to enable distributed-learning models of teacher preparation, induction, and professional development” (p. 5).

The academic literature reveals that, in some cases, digital technologies were leveraged to create online spaces which had similar purposes to the types of face-to-face learning experiences that were available in their schools as part of university teacher education programs. For instance, university/school partnerships developed online spaces that served as an extension of the school’s or district’s induction system or as the primary mechanism to support novice teachers (Carpenter, 2015; Carroll, Fulton & Yoon, 2005a; Carroll, Yoon & Lee, 2005b; Fulton, Burns & Goldberg, 2005; Hsieh, 2017). Some partnerships have designed an online space as a place for inquiry, especially with respect to instructional practice or curriculum development (Jetton, Cancienne & Greever, 2008; Carroll et al., 2005a; Laferriere, Erickson, & Breuleux, 2007). Other partnerships attempted to address feelings of isolation that are common to new teachers and sought to provide support for all educators regardless of their place on the career continuum (Carroll et al., 2005a; Lieberman, 1995; Maistry, 2008; Snow-Gerono, 2005; Taranto, 2011). This research is important to the field of teacher education because it demonstrates how online spaces have been used to overcome well-documented barriers
(e.g., geographic, economic and time constraints) to professional learning experiences (Dede et al., 2008; DeSimone, 2011; Killion, 2013; Mizell, 2011; Schlager et al., 2009; Yoon, Duncan, Lee, Scarloss, & Shapley, 2007).

Indeed, there is a wide range of sponsors of online spaces for educators including those developed by for profit and non-profit organizations (e.g., Edutopia community groups) as well as informal spaces, typically created as part of a grassroots effort (e.g., English Companion Ning). Seely Brown and Gray (2007) argue that the latter are particularly desirable to some because they are built on the practices and tacit knowledge of educators with similar interests. Wesely (2013) asserts that these grassroots spaces are important places to study because they will help teacher educators better understand “what the teachers do to educate themselves” (p. 309).

The literature discussed in this section focuses on what is happening in online spaces for educators that are comprised of individuals who voluntarily engage in these spaces. In this literature, there are three major areas of interest: educational networking, structure and affordances, and participation roles. Within the section on educational networking, I describe what is meant by the term, educational networking, and then discuss two popular activities that occur in these spaces: educators connecting with other educators outside their school/district and knowledge and resource sharing. An examination of the collaborative nature of online spaces and how trust has been studied in these spaces is the next area of focus. Then I consider how educators have leveraged the affordances and structures made possible by digital technologies to support their needs and interests as related to teaching and student learning. A discussion of how digital
technologies have been used to address some of the barriers associated with access to professional learning experiences and how they have been adapted to engage in structured conversations around professional topics follows. Finally, I discuss the different roles participants assume (i.e., leaders/moderators, lurkers, and boundary crossers) and their significance. Throughout this section, I consider this literature within the context of the question that guides my study: what can be learned from online spaces for educators, such as #sschat, that might help to inform and shape more formal professional learning experiences and through the lens of Gee’s conceptual framework of affinity spaces.

**Educational Networking**

Hargadon (2010) introduced the term “educational networking” to describe the use of social networking specifically for educational purposes, including efforts to share knowledge and resources, provide support, and engage in professional learning experiences. The literature indicates that individuals created online spaces for educators because they wanted to “find people with similar interests, opposing views, and resources” (Herbert, 2012, p. 51), gain access to teacher expertise (Rodesiler, 2014; Rodesiler, Rami, Anderson, Minnich, Kelley, & Andersen, 2014) or “bring together and forge new relationships among education practitioners, providers, and researchers from around the world on a daily basis” (Schlager & Fusco, 2009, p. 203). Some educators who participated in these types of online spaces were recognized as early adopters (Forte et al., 2012) and others were attracted because of the creative and innovative ideas that were commonly found there (Carpenter & Krutka, 2014; Hur & Brush, 2009; Rodesiler,
2014; Rodesiler et al., 2014; Visser, Evering, Barrett, 2014; Wesely, 2013).

** Connecting with educators outside their school.** Much of the data from the empirical literature of online spaces for educators has indicated that participants appreciated the support that they found in these spaces (Booth, 2012; Carpenter & Krutka, 2014; Duncan-Howell, 2010; El-Hani & Greca, 2013; Hur & Brush, 2009; Lisbôa & Coutinho, 2013; Rodesiler, 2014; Rodesiler et al., 2014; Wesely, 2013; Visser et al., 2014). This was not surprising given that feeling isolated is a well-documented condition in teaching (Darling-Hammond, 2015; Dede et al., 2008; Killion, 2013; OECD, 2014; Schlager et al., 2009; Yoon et al., 2007). Interestingly, some participants reported going to online spaces for educators because they could seek help or share concerns anonymously without worrying about what their school colleagues might think (Hur & Brush, 2009). In a similar way, Gee and Hayes (2010) claimed that people regularly act as “unofficial” mentors and help “newbies” to the space find answers to their questions or guide them as they seek solutions to their problems (e.g., Tabby Lou’s quest to make a purple potty). People participated in affinity spaces because of their passions for a shared interest. Likewise, participants in online spaces for educators reported being passionate about teaching and valued the opportunity to connect with other educators who shared similar feelings about their commitment to the teaching profession (Booth, 2012; Duncan-Howell, 2010; Carpenter & Krutka, 2014; Wesely, 2013). Indeed, it was widely accepted that participants engaged in online spaces for educators because they appreciated partaking in discussions with like-minded people who understood their experiences and challenges. The literature regarding online spaces for
educators has shown that engaging in collegial learning groups can be beneficial because of the opportunities for sense-making that occur during social interactions (Klein, Walter & Riordan, 2015; Lieberman, 2000; McDonald & Klein, 2003).

A somewhat unexpected finding was that some participants claimed that they enjoyed the opportunity to engage with people who subscribed to perspectives different from theirs as well as educators from around the world. Participants mentioned that they went to online spaces because they wanted to be exposed to new ideas (Carpenter & Krutka, 2014; Hur & Brush, 2009; Wesely, 2013). In Wesely’s (2013) study, participants indicated that they were willing to try new instructional approaches that were discussed during a synchronous Twitter #chat because they had ongoing support of participants in the online space, if needed. This could be an important finding because this behavior has some of the same characteristics of job-embedded professional learning experiences—an approach considered to facilitate teacher learning (Avalos, 2011; Darling-Hammond et al., 2009; Desimone, 2011a; Desimone & Garet, 2015; Opfer & Pedder, 2011).

Understanding more about the conditions that led to the educators’ willingness to try new approaches could be helpful for teacher educators responsible for designing more formal professional development experiences.

Looking across the empirical research published over the past eight years reveals another interesting finding about why some educators may be drawn to these online spaces that suggests a need for further study. Educators reported that they liked to help

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3 I use the term #chat(s) as a way to refer to the synchronous, one hour long discussions that occur using a specific Twitter hashtag (#). I have chosen to include the “hashtag” before the word “chat” as a way to signal to the reader that I am talking about the #chat experience and not just a random interaction (brief discussion or chat) among two or more participants.
other educators or felt satisfaction when they were able to share ideas (Carpenter & Krutka, 2014). Additionally, educators reported that they participated in online spaces because they wanted to contribute to the profession or they felt a need to be kind and encourage other educators in these online spaces (Forte et al., 2012; Hargadon, 2010; Rodesiler, 2014; Rodesiler et al., 2014). Unlike teacher workshop models with outside experts as leaders, in Gee’s conception of affinity spaces (2005), participants with various levels of expertise provide support and guidance around a shared interest (cf. Gee, 2007, 2012; Gee & Hayes, 2010, 2012; Hayes & Duncan, 2012). This finding suggests that there is a need to know more about teachers’ desire to contribute to the teaching profession, how they do this in online spaces, and what impact this behavior has on themselves or other educators. It is possible that such insights may enhance our understanding of the characteristics that contribute to professional learning or reveal some feature of teacher learning that has yet to be identified.

A number of researchers have reported that online spaces for educators have the potential to support learning. These studies indicate that online spaces for educators “contribute to teachers’ continual professional learning” (Booth, 2012, p. 26), provide “opportunities for learning” (Carpenter & Krutka, 2014, p. 10), are “a rich source of professional learning” (Duncan-Howell, 2010, p. 338), enable teachers to “experience a new way of professional learning” (Sari & Tedjasaputra, 2012, p. 890), offer “learning opportunities” (Wesely, 2013, p.307), and act as “learning forums” (Zuidema, 2012, p. 144). Educators have often reported that they participate in these types of online spaces because they are interested in learning (Carpenter & Krutka, 2014; Wesely, 2013). More
research is needed to better understand what factors within online spaces for educators (e.g., social interactions, affordances, participation roles), if any, are likely to contribute to or support professional learning. Such findings have the potential to add to our understanding of the factors that could facilitate teacher learning within more formal professional learning experiences.

**Knowledge and resource sharing.** Hargadon (2010) suggests that opportunities for learning in these online spaces may be similar to the benefits of attending single/multi-day educational conferences minus the concerns associated with geographic location, time, and participation costs. Educators can access information in these spaces to meet their just-in-time learning needs 24/7 as well as engage with experts in the field of education (Blitz, 2013; Carpenter & Krutka, 2014; Hargadon, 2010; Hart & Steinbrecher, 2011; Herbert, 2012). Knowledge and resource sharing can include a wide variety of activities related to teaching such as discussions about new instructional approaches and pedagogy, links to resources for student learning, lessons and unit plans, book talks, etc.

Desimone (2011a) posits that key for supporting teacher learning are experiences that focus on content and how students learn the subject area content. A common activity in online spaces for educators is to engage in professional discussions regarding content-specific instructional practices and current trends in the content area (Booth, 2012; Duncan-Howell, 2010; El-Hani & Greca, 2013; Krutka & Carpenter, 2016; Tsai, Laffey, & Hanuscin, 2010; Wesely, 2013; Zuidema, 2012). Booth (2012) credits specific experiences such as discussion forums, book club events, and blogging, as opportunities
for English teachers to think about complex issues in new ways and share tacit knowledge. Zuidema (2012) claims that the informal nature of an online space cultivated an inquiry as stance approach for 35 high school English pre-service teachers who were engaged in their student teaching experiences. These novice teachers appreciated the opportunity to pose questions and receive responses from their peers who were going through similar experiences. El-Hani and Greca (2013) created an online space for higher education faculty and high school biology teachers to engage in discussions as a way to reduce the “research-practice” gap called ComPractica. In short, these two groups of educators used ComPractica to better understand each other’s perspective of what knowledge and skills are needed to prepare pre-service educators for teaching and to create resources to use for this purpose. Content/grade-focused online spaces can be useful for singleton teachers (e.g., rural areas, specialty subjects) who may not have access to other teachers of the same content or grade. However, more research is needed to understand what impact exposure to new information (e.g., teaching strategies) by colleagues in informal settings may have on a teacher’s instructional practice or sense of efficiency. These findings are particularly important for teacher educators who have responsibility to support educators in making shifts in their instructional practice based on latest research and education reform initiatives.

The literature indicates that another popular activity in online spaces for educators involves resource sharing (Booth, 2012; Byington, 2011; Carpenter & Krutka, 2014; Curwood & Biddolph, 2017; Krutka & Carpenter, 2016; Forte et al., 2012; Hargadon, 2010; Wesely, 2013). For example, Carpenter and Krutka (2014) examined survey
responses of 494 K-12 teachers, administrators, and higher education faculty and found
that the most popular use of Twitter revolved around resource sharing. These resources
often targeted a specific content focus, designed to address unique student needs or in
response to a particular request. For example, one teacher tweeted a request for resources
for a video that her students were making and within five minutes, there were a multitude
of relevant responses. This finding supports Rheingold’s claim (2014) that a common
practice of online spaces is sharing resources that are (typically) vetted by individuals
with expertise. It does suggest, however, that understanding the types of resources that
teachers requested or valued would be helpful for teacher educators who, as part of their
responsibilities, design and implement formal professional development experiences.

Collaboration. Researchers claim that the collaborative nature of online spaces
supports teaching and learning (Booth, 2012; Carpenter & Krutka, 2014; Krutka &
Carpenter, 2016; El-Hani & Greca, 2013; Lieberman & Pointer-Mace, 2010; Rodesiler et
al., 2014; Wesely, 2013) and, in particular, provide opportunities for “increased
collaboration between special and general education teachers” (Byington, 2011, p. 291).
Although collaboration is perceived as a benefit of online spaces for educators, it must be
said that little attention has been given to defining what is meant by collaboration or
providing evidence that collaboration had occurred.

I conceive of collaboration occurring when individuals are working together in a
complex manner to complete a task or achieve a shared goal. As part of this definition is
the understanding that the outcome is a result of the collective experience and would
probably not have been accomplished in the same way by individuals working separately.
Common collaborative experiences involving educators include sharing knowledge, learning together, and developing resources. Given this description, researchers have documented the type of experiences that often involve collaboration such as working together on an article for publication, the creation of instructional materials, or the creation/execution of webinars or conference presentations; although there was no specific data that demonstrated collaborative interactions (Booth, 2012; El-Hani & Greca, 2013; Rodesiler et al., 2014; Wesely, 2013).

The researchers that have been the focus of this literature review did not typically report on what happened outside of the specific online spaces that were being studied. With that in mind, it is conceivable that collaboration between participants from the same online spaces happened in other online or offline places but these experiences may not have been captured during the data collection process. To illustrate, El-Hani and Greca (2013) reported that some of the participants engaged in collaborative action research projects and Wesely (2013) explained that the participants collaborated on a curriculum writing project. However, no details were provided about how these experiences were structured to promote collaboration or what transpired making it is difficult to claim that collaboration happens in online spaces for educators.

**Trust.** Studies examined the role that trust played in online spaces for educators by investigating what happened in spaces where participants engaged in online and face-to-face interactions. Researchers reported that educators who attended the in-person meetings became more comfortable interacting with people that they got to know and had a better sense of how to be a contributing member within the online space (Matzat, 2010,
“Trust” in this sense refers to a sense of confidence that other people will be supportive rather than critical (e.g., offer helpful comments, provide encouragement to try new things even though they may not work). Matzat (2010, 2012) analyzed survey responses from more than 500 people who participated in an online space for Dutch educators and found that spaces designed with both online and face-to-face components were less likely to have issues related to trust. Additionally, he found that knowledge sharing increased in these spaces when there was a high level of reciprocated trust.

Booth (2012) investigated how trust was cultivated in two online spaces—the National Education Leaders Network with approximately 300 members and the English Teachers’ Online Community with more than 20,000 members. She specifically examined how the actions of the moderator contributed to the participants’ belief that the online space was a safe environment where they could take risks, share their ideas or ask for help. Booth found that moderators—who were perceived as having expertise in the content area and in this role—contributed to developing a safe environment for knowledge sharing. In addition, she found that moderators modeled appropriate behavior and recognized others whose behaviors contributed to the common good of the space as a way to cultivate trust. Booth (2012) and Pino-Silva & Mayora (2010) identified specific individuals who assumed responsibility for ensuring a safe environment within the online space and gave them nicknames illustrative of their roles, such as sheriff or referee. Finally, participants reported that features on the website, such as online profiles and privacy policies, contributed to the feeling that the online space was a safe and credible
place for educators to connect and share knowledge and resources.

**Affordances and Structures**

Teachers often struggle when they attempt to implement new instructional practices (Darling-Hammond et al., 2009; Wei, Darling-Hammond, & Adamson, 2010). In a world where digital technologies are continuously emerging and changing, it can be difficult for educators to stay up to date and feel confident using these tools in their professional lives. A common concern reported by some participants involved a reluctance to post/comment on work in the online space because they did not want to appear incompetent or were unsure of the expectations of the group (Hur & Brush, 2009; Thang, Hall, Murugaiah, & Azman, 2011). In addition, there were times when participants reported feeling overwhelmed by the large number of listserv responses or complained about discussions going off-topic or being monopolized by one member (Duncan-Howell, 2010; Thang et al., 2011). As an aside, these claims should be viewed with caution as they represent the perspectives of a small number of educators and responses on this topic were not the focus of these studies. With that said, since these studies were conducted, an increased number of digital natives, (Prensky, 2001) have grown up with technology and entered the teaching profession (Lei, 2009). Also, increased accessibility to digital technologies (e.g., smartphone apps) has made it easier to interact in online spaces for educators potentially reducing the frequency of these concerns.

While there are many opportunities for teaching and learning that have been realized because of the affordances of digital technologies, Borko and colleagues (2009)
asserted almost a decade ago—and nothing has changed—that “technologies are not neutral” (p. 3). The affordances associated with digital technologies have the potential to provide access to people anytime, anywhere (Lankshear & Knobel, 2011; McLoughlin & Lee, 2007). Affordances, in this sense, include access to up-to-date equipment, knowledge of how to use the equipment and familiarity with insider practices. People who do not have these things are at a disadvantage. There is ample evidence that participants who used Twitter in their personal lives were able to easily adapt their Twitter practices; resulting in it becoming a productive tool for their professional lives (Carpenter & Krutka, 2014; Wesely, 2013). These users appeared to appreciate its 140 character limit because they were able “to review a lot of potential ideas,” viewed it as “efficient, accessible and/or user friendly” and something they could “do from home, school, public transportation—anywhere” (Carpenter & Krutka, 2014, p. 9). It contrast, educators who do not know how to use Twitter may not feel comfortable engaging in synchronous Twitter chats or view it as a useful tool to interact with other educators (see structured conversations section for a discussion of Twitter chats in this chapter).

Several studies focused on how comfortable participants were with using digital technologies in online spaces for educators. For example, Tsai and colleagues (2010) asked 49 K-8 science teachers about factors that contributed to how well the online space met their needs and then surveyed the participants using a tool that measured items such as their comfort level with the specific technology tools associated with the site and their sense of community. The participants reported that unique features of the software they used contributed to a sense of community within the online space and they felt a safe
space had been created to share their experiences. Nistor, Baltes, and Schustek (2012) investigated a space used by 450 higher education faculty interested in a particular type of software used for educational research. Their findings, based on a regression analysis of responses from 72 participants, indicated that there was a reciprocal relationship between technology acceptance and participation in the online space.

Further, researchers argued that it is essential to consider the digital technologies available as they impact the type of interaction that can take place (Dede, 2004; Sam, 2012). Asynchronous and synchronous features found in these online spaces for educators each had their advantages. On one hand, synchronous communication provided opportunities for immediate feedback, “just in time learning” as well as the chance to follow up with additional questions or comments (Dede, 2004; Rodesiler et al., 2014; Carpenter & Krutka, 2014). One participant revealed, “I don’t feel alone in my classroom anymore. I have a whole crew of cheerleaders who are easy to reach with a quick message between classes” (Rodesiler et al., 2014, p. 55). On the other hand, asynchronous features of online spaces, such as discussion forums and blogs, allowed for teachers to reflect upon experiences before they provide feedback to other teachers (Carpenter & Krutka, 2014; Duncan-Howell, 2010; El-Hani & Greca, 2013 Forte et al., 2012; Hur & Brush, 2009; Lieberman & Pointer-Mace, 2010; Sari & Tedjasaputra, 2013; Rowsell, Saudelli, Scott, & Bishop, 2013). The literature on effective professional development has identified the importance of reflection and the desirability for educators to participate together in interactive experiences (Darling-Hammond et al., 2009; Desimone, 2011a; Desimone & Garet, 2015). This implies that additional research is
needed to understand how the affordances associated with digital technologies may contribute to enhancing professional learning experiences. Investigating how educators adapted digital technologies to support or facilitate learning is worthy of further study because such findings may provide insights into new features that foster learning in ways that have yet to be identified.

**Accessibility.** The literature has highlighted that one of the advantages of online spaces for educators is the flexibility for participants to interact at a time and place of their choosing (Blitz, 2013; Booth, 2012; Carpenter & Krutka, 2014; Dede et al., 2008; Duncan-Howell, 2010; Forte et al., 2012; Hargadon, 2010; Hur & Brush, 2009; Wesely, 2013). Unlike traditional face-to-face professional learning experiences which necessitate a certain geographic proximity, the internet facilitates exchanges among individuals who have been isolated by their location (e.g., rural) as well as has the ability to connect people from different countries and time zones. For instance, Sari and Tedjasaputra’s (2012) study of a teacher, teacher educator, and school leader, revealed that Indonesian educators—who typically face geographic constraints—could connect and interact in an online space with other educators from their country to work on national initiatives. The participants appreciated the ability to communicate and obtain feedback from educators living in all parts of the Indonesian archipelago. In particular, one teacher, who lived in a remote area, credited the internet for making it possible for him to become familiar with new instructional strategies which he later shared with colleagues at his school.

A lack of access to high quality resources and experts has been well-documented
in the professional development literature (Borko, et al., 2009; Killion, 2013, Lieberman & Pointer-Mace, 2010; Schlager et al., 2009; Siemens & Conole, 2011; USDE, 2010b). However, Hargadon (2010), founder of Classroom 2.0 Ning, claimed that educators who participate in online spaces for educators can get the benefit of “connecting and sharing that have typically been reserved for special-interest conferences” without concerns about time and costs associated with participation and travel. In a similar way, Dede and colleagues (2008) assert that in online spaces for educators, the entire school can have access to experts and resources that would not have been fiscally or logically possible in face-to-face situations. In fact, the increased popularity of one online space frequented by educators worldwide (#edchat) resulted in the need for an additional scheduled synchronous chat session to accommodate educators living in eastern hemisphere time zones (Herbert, 2012). Since #edchat is online, adding another session could be accomplished without additional costs.

Participants often acknowledged the asynchronous nature of the tools that were used in online spaces as contributing to their learning experience. For example, busy educators reported that they appreciated the ability to be able to access information posted on the website at a time that was convenient to them. In addition, they liked that they could read a post, reflect upon what was said, and have time to think before posting a response (Beach, 2012; Booth, 2012; Borko et al., 2009; Duncan-Howell, 2010; Forte et al., 2012; Gao, Luo & Zhang, 2012; Sari & Tedjasaputra, 2012).

Certainly, the potential for increased access to quality resources is an equity issue worthy of further research. This concern is especially salient when the latest research
promotes shifts in instructional practices and a need for new instructional materials. Further studies are needed to examine the types of interactions that support educators gaining access to high quality resources and the impact of those interactions (e.g., do they share the resources with school colleagues, engage in collegial discussions, change instructional practices). Findings from such studies may enhance our understandings of the needs and interests of educators who are self-directed and take responsibility for their own learning. In addition, research that investigates what educators do in online spaces in preparation to meet new national expectations may provide insights for district and state leaders responsible for implementing large scale professional learning initiatives.

**Structured conversations.** Educators have adapted Twitter—a tool designed for people to broadcast “what’s happening” in their personal lives—to be a platform that supports “conversations” about educational topics that are highly focused. To illustrate, synchronous Twitter #chats refer to online discussions that revolve around six to eight overarching questions, follow a regular format that is known to the participants, and occur at the same time each week (Booth, 2012; Carpenter & Krutka, 2014; El-Hani & Greca, 2013; Forte et al., 2012; Gao et al., 2012; Wesely, 2013). #Edchat was the first of this type of structured conversation and today there are hundreds of Twitter chats that target the specialized interests of educators. The use of the hashtag symbol (#) in front of the name of the group allows participants to follow and engage in the conversation simultaneously with other interested individuals. And the use of the “@” symbol allows an individual to send a targeted message to someone or some group. These public discussions can be reviewed at a later time by anyone interested or regular participants.
not able to attend the session. In some spaces, an individual takes responsibility for capturing the chat using special software (e.g., Storify) and archives it in a designated place online for people to access at a later time. Sharing resources, particularly links of useful websites that address the synchronous #chat topic, is a popular activity during Twitter chats (Carpenter & Krutka, 2014; Wesely, 2013).

Educators who have participated in Twitter chats have reported that their teaching has been “revolutionized” and one claimed “it completely changed my outlook and knowledge base like no other medium I have encountered” (Carpenter & Krutka, 2014, p. 11). This shift in how these educators feel about their teaching suggests that something interesting may be happening in these spaces that is worth further investigation. Desimone (2011a) has recommended that teachers “should participate in professional development activities together to build an interactive community” (p. 29). The nature of these structured conversations suggests that this is a very interactive experience for participants. As such, there is a need to better understand what is happening in these spaces and the implications of the interactions. It is conceivable that such a study could shed light on aspects of the interactions or the structure that might contribute to learning.

**Participation**

There are multiple ways to think about the construct of “participation” in online spaces for educators. First, the question of who is participating in these online spaces is one that merits a brief discussion. Looking across the demographic information provided in the empirical research of online spaces for educators over the past eight years indicates that the majority of participants were K-20 educators who were teachers (e.g., pre-
service, novice, in-service, retired), administrators, teacher educators, researchers, and higher education faculty. In addition, some people who have a particular (personal or professional) interest in the subject matter also participated in these spaces (e.g., veterans from a non-profit organization in a social studies space). Some online spaces were designed specifically for early career educators (e.g., pre-service or novice teachers) (see also Hsieh, 2017; Carpenter, 2015; Tsai, 2012; Tsai et al., 2010) or higher education faculty (see Nistor et al., 2012). In addition, other online spaces targeted teachers of specific areas such as social studies, English, etc. (e.g., #sschat, English Ning Companion). Demographic information collected by researchers suggests that online spaces appeal to a wide range of educators in terms of their age, gender, etc. For example, Duncan-Howell (2010) found that a majority of participants (60%) had more than 20 years of experience whereas ten percent of the participants had between 1-5 years of teaching experience. Byington (2011) claimed that it was the diversity of the knowledge base that could be found in these online spaces that makes them more powerful for learning than a teacher acting on her own.

Another way to consider the construct of “participation” is to examine the formal and informal roles that often are apparent in online spaces for educators. What follows is a discussion of some of the actions associated with these roles as well as explanation for the unique names given to each of the positions. Given that participation in these online spaces is voluntary, understanding how educators choose to design different participation roles may provide useful information for teacher educators who plan formal professional development experiences.
**Leadership roles/moderators.** Pino-Silva and Mayora (2010) found that a moderator in one study performed as “team coach”; that is, she became a facilitator of discussions and encouraged individuals to participate. In another study, the moderator was described as acting more like a “referee” where she assumed responsibility for enforcing the rules. To illustrate, when someone posted something that did not meet copyright expectations, the moderator sent the person an email requesting that s/he follow the rules. In a similar way, Booth (2012) used the term, “sheriffing” to denote a moderator’s behavior when he took action (e.g., sent an email) to reinforce community norms. Then, when this same moderator recognized accomplishments of the community’s members through the publication of a newsletter, he was viewed as a “cheerleader.” The designation of “influential” or “core” members was given to participants who were active and generous with their time and expertise (Booth, 2012). Thang and colleagues (2011) called the teacher educators who acted as mentors, “nurturers,” when they attempted to help math, science, and English teachers feel comfortable posting in the online space.

**Lurkers.** Sun, Ra and Ma (2014) claimed that the “majority of the content in an online community is created by the minority of the users” (p. 110). People who observe what happens in online spaces (e.g., discussion forums, Twitter #chats) but do not contribute by sharing knowledge or resources are often referred to as lurkers. Not much is known about why some individuals choose to observe what happens in online spaces for educators without engaging as participants. Lave and Wenger’s (1991, 1998) community of practice model recognizes such behavior as “peripheral participation” and
considers it to be a meaningful time in an apprentice's training. It was during this stage that participants remained on the outside of the community as a way to gain important knowledge about the practices and norms of the group. Herbert (2012) acknowledged the importance of learning the digital practices of an online space and suggests that newcomers benefit from taking a “lurk and learn” stance (p. 52) when they first start coming to a site. In fact, Sari and Tedjasaputra (2012) reported that one of the educators in their study started as a lurker and later became an active participant after a face-to-face meeting where the e-moderator boosted his confidence.

In a literature review of 71 studies of online spaces (not necessarily involving educators), Sun and colleagues (2014) found that the following four factors affected whether an individual chose to be a lurker in an online space: nature of the community, individual characteristics, commitment between the individual and online space, and the quality of the site (space). Findings from a review of such a large number of studies was useful; however, limited information about how the studies were selected for review, how lurkers were identified, and the research methodologies that were used in the studies (e.g., participant size, data collection methods) introduced concerns about the trustworthiness of the claims made by the researchers.

Some researchers viewed lurking behavior as something negative. For example, El-Hani and Greca (2013) expressed concerns that some members were gaining knowledge and resources without contributing to the community. These researchers viewed this imbalance as an equity issue. El-Hani and Greca claimed that the majority of ComPractica’s participants were lurkers, although one participant, who did not write any
messages on the ComPractica Moodle in the beginning, ended up with the highest number of posts over time. The researchers reported that the individual’s behavior moved from being a side-liner (peripheral) to becoming more central. This change in behavior is similar to what Lave and Wenger’s (1991, 1998) described as happens with peripheral participants when they become familiar with the practices of the community. Unfortunately, no data were provided describing what caused the shift in participation or how this happened.

Matzat (2010, 2012) appeared to hold similarly negative beliefs about participants who went to online spaces but did not interact. He called them *free-riders*. Matzat conceptualized this kind of behavior as inversely related to the degree of embeddedness within an online space. He explained that a high degree of embeddedness is reflected in a group of teachers that shares activities and has interests in common; therefore, he argued that some interactions offline are necessary to ensure there is an appropriate amount of embeddedness present in online spaces. Matzat’s view of free-riders as non-contributors is in contrast to Lave and Wenger’s (1991, 1998) notion of peripheral participation. As mentioned previously, Lave and Wenger perceived lurking as a useful way for newcomers to learn the practices of the community; a necessary step in the process of becoming accepted as productive member. Similarly, Gee (2005) believes that lurkers can benefit from observing what happens in online spaces. He argues that all participants can be valuable contributors whether they are new to the space or have little experience related to the shared interest. This understanding is different from many traditional models of professional development which use “experts” as facilitators or segregate
educators based on their years of experiences or roles (e.g., novices from experienced educators and both groups from administrators).

Given that very little is known about why people lurk, what causes lurkers to become participants or what educators do after lurking in online spaces, this is an area that would benefit from being studied. While the literature indicates that lurkers do not make valuable contributions to the online space that they observe, an examination of this phenomenon has potential to reveal interesting insights both in terms of why people choose to lurk and the implications of their actions. It is possible that individuals “lurk and learn” (Herbert, 2012, p. 52) as a way to become familiar with the practices of the online spaces for educators. They may make changes to their instructional practices and potentially share the outcomes of their experiences in other online spaces or with their colleagues at school but there is not sufficient research to support this supposition. In addition, it is conceivable that in time (and potentially with “unofficial” mentoring) lurkers may assume roles with more responsibilities. Thus, insights from such studies could add to our understandings of the experiences that may facilitate teacher learning which would be important because we do not know enough about how teachers learn (Kennedy, 2016).

**Boundary crossers.** The terms boundary crossers, boundary spanners, bridges, or brokers refers to individuals who belong to multiple networks and spread ideas and resources from one space to another (Schlager et al., 2009). People who participate in an online space for educators are considered to be valuable entities to a network because they can easily share what they learn in one space (e.g., knowledge, resources, practices)
with individuals they know in other spaces, including colleagues in their schools. Based on surveys, interviews, and content analysis of 2000 Twitter responses, Forte and colleagues (2012) claimed that "teachers on Twitter tend to be eager adopters of technologies and well positioned to broker information as “bridges” between members of their local communities of practice and other networks of educators" (p. 106). One participant who became known as an “information broker” to her colleagues at school, commented that this new role helped her realize that her “voice as an educator was an important one” (Forte et al., 2012, p. 56). This realization is consistent with Gee’s (2005) conception of affinity spaces. He proposed that not only do participants become aware of knowledge and skills related to their shared interests but they can also gain insights about themselves based on “their own choices, purposes, and identities” (p. 98).

It is assumed that boundary crossers perform a beneficial service by “transporting” knowledge, skills or practices from one space to another (including from online to face-to-face). However, we do not know much about why people choose to become boundary crossers or what happens as a result of this transfer of information. Given that the current literature about professional development indicates teachers benefit from engaging in collegial groups to construct knowledge, it would seem important to know how the interactions of boundary spanners in online spaces affects educator learning groups in schools and districts (and potentially vice versa). Such information may contribute to the knowledge base of professional learning experiences with respect to how they are conceived and structured.

The limited empirical research on how individuals participate in online spaces for
educators makes this an area suitable for research. For example, there is very little information about the types of interactions that occur between participants who have assumed different roles and the implications of these interactions. In addition, not much is known about how or why people move into positions with more responsibilities in these online spaces. It is possible that some “unofficial” mentoring is happening in these online spaces that might be useful for teacher educators to know as they think about supporting individuals interested in assuming additional responsibilities in professional learning experiences. Further, it is conceivable that participants in online spaces assume a particular role because that suits specific dispositions that they have or reflect individual preferences related to how they want to engage in spaces that provide opportunities for learning. Findings from such a study may provide insights on how to differentiate more formal professional learning experiences based on the needs and interests of the target audience.

Finally, there are questions to be asked about the diversity of experiences that participants bring to online spaces that have yet to be asked and answered. For example, participants in #sschat span all aspects of an educator’s career cycle (e.g., pre-service, novice, in-service, mentor, retired) and reflect a wide variety of positions in the education profession (e.g., teachers, coaches, mentors, administrators, teacher educators, higher education faculty, positions in organizations that support education). In addition, participants come from rural, suburban, and urban districts serving students with diverse learning needs (e.g., English language learners, special education needs). One of the central premises in Gee’s (2005) conception of affinity spaces is that participants are
drawn to a space because of their passion for the shared interest. Participants are not defined by their years of experience or the job title. Leadership roles are considered to be fluid and everyone’s contributions are considered valuable regardless of their role in the space. In some ways these online spaces are similar to face-to-face teacher networks in terms of the diversity that participants bring to the learning spaces (Lieberman, 2000; McDonald & Klein, 2003). However, the affordances and structures made by possible by digital technologies means that online spaces do not have to contend with the same barriers (e.g., geographic, financial, time constraints), have the potential for unlimited number of participants, and can sustain interactions as long as there is interest. Answering questions about how the participants’ diverse backgrounds and experiences affect the interactions in online spaces and/or contribute to meeting the needs and interests of participants in these spaces may shed light on factors that support teacher learning that have yet to be identified.

**Conceptual Framework**

Researchers have turned to various social learning theories as a way to shed light on what happens in online spaces for educators and to answer questions about the complex interactions that occur within these spaces. In this section, I briefly describe three theories commonly used for this line of research and discuss why I chose not to use them. Then, I describe Gee’s (2005) conception of affinity spaces which I think is best suited to support my research and discuss findings from empirical studies that have used this framework which are pertinent to my research. I argue that Gee’s conception of affinity spaces can be a useful lens to provide understanding of what is happening in
these online spaces for educators as a way to help inform and shape more formal professional development experiences, the purpose of this study. Finally, I identify seven characteristics of affinity spaces that I propose will be beneficial in answering my research question about what can be learned in online spaces for educators, such as #sschat, that might help to inform and shape more formal professional learning experiences.

**Social Networking Theory**

Social network theory has been used by researchers of online spaces for educators to examine patterns of relationships that occur within a social structure (Baker-Doyle & Yoon, 2011; Forte et al., 2012; Lisbôa & Coutinho, 2013; Moolenaar, 2012). Researchers use computer software to determine how densely-knit a network is and the centrality of actors within the network. In addition, diagrams (sociograms) are created to illustrate the interactions between individuals (nodes) and potential for flow/constraint of information, resources, etc. as a way to understand what is happening within the network. Garton, Haythornthwaite, and Wellman (1997) proposed its use in the study of online spaces as a way to examine the interplay between individuals and groups made possible by the internet and digital technologies.

Researchers of online spaces have used social network theory and social network analysis tools as ways to identify key individuals within a virtual space as a means to implement new instructional practices in support of educational reform initiatives (Lisbôa & Coutinho, 2013; Moolenaar, 2012; Schlager et al., 2009). However, Schlager and colleagues (2009) point out that it is difficult to determine the strength of social ties
between individuals by simply looking at interactions between them or to gain a sense of the importance of any relationship on teacher practice.

Social networking theory is not likely to be useful in answering my research question because it does not provide any information about what is happening within the interactions between the people. More specifically, it does not shed light on why educators engage in online spaces for educators—information that might be useful for people responsible for designing formal professional development.

**Social Capital Theory**

The core of social capital theory lies in how an individual portrays his/her access to resources and knowledge (Lin, 1999; Putnam, 1995). Unlike Lave and Wenger’s (1991) communities of practice which encourages members to develop shared meanings and practices, social capital theory recognizes that educators will use resources in different ways based on their needs and individual knowledge and experiences. It is understood that these resources are shared through social ties and, as such, are adapted and modified through social interactions (Adler & Kwon, 2002; Baker-Doyle, & Yoon, 2011; Casey, 2013; Ellison, Steinfield & Lampe, 2007; Johnson, 2012, Wellman, 2001). Social capital theory acknowledges that teachers may assume responsibility for their own professional learning but it is not viewed as an individual activity. Johnson (2012) posits that social capital increases as a teacher shares resources with others with similar interests.

Forte and colleagues (2012) found that the educators in their study were early adopters of technologies for their own professional learning. They used Twitter to
develop and maintain relationships with other educators with whom they shared resources, engaged in discussions about instructional practices, and responded to requests for information. The researchers identified many of the educators as “information brokers” (p. 109) since their relationships with educators outside their school or district provided them access to new resources and information that they shared with colleagues in their schools. This finding is important because teachers have reported feeling isolated and not having access to quality resources and experts (Borko, et al., 2009; Killion, 2013; Lieberman & Pointer-Mace, 2010; Schlager et al., 2009; Siemens & Conole, 2011; USDE, 2010b). As such, there is a need to better understand the type of resources and information being shared in online spaces for educators and the impact such sharing has on the “information brokers” and the teachers with whom they share this information.

With its emphasis on the individual’s contribution—and little attention paid the interactions among participants—Social Capital theory insufficiently addresses what is happening in online space for educators to answer my research question. It is for this reason that I have chosen to set it aside.

**Communities of Practice**

The communities of practice framework, as conceived by Lave and Wenger (1991, 1998), is helpful for examining how people make meaning together because it considers the type of interactions that occur within a group of people that have shared interests or goals. From their perspective, communities of practice provide a way for knowledge (expert and tacit) and practices to be shared among its members in order to efficiently complete tasks and reach common goals. Apprentices (i.e., new people to the
group) learn the norms of the community by observing behaviors and interactions of the experts in the group (see Lave & Wenger, 1991 for more about legitimate peripheral participation). Reification, a central construct in communities of practice, serves to concretize abstract concepts that are essential to the community and can be viewed by through an examination of shared actions of members and the community’s artifacts (e.g., tools, processes, routines).

In more recent years, Wenger (2006) has expanded his understanding of communities of practice to include online spaces. He now defines “communities of practice [as] groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly” (Wenger, 2006, p. 1). Critics of communities of practice suggest that an imprecise definition of the term has led to a wide variety of interpretations of this concept (Gee, 2005; Gee & Hayes, 2012; Levine, 2010; Schlager & Fusco, 2003). In fact, Seely Brown and Gray (1995) claim that “CoPs seldom grow beyond 50 members—that's about as big as they can get before they lose the intense collaborations needed to build shared commitment” (para. 321). This provides further support that conceiving of online spaces for educators as “communities” is problematic because their participation numbers can often reach into the thousands (see Booth, 2012; Rodesiler, 2014).

It is conceivable that people are attracted to online spaces for educators because of the sense of community that is apparent in the discussion forums, synchronous Twitter #chats, and sharing of knowledge and resources. Large online spaces with hundreds of participants (e.g., #sschat) are not communities of practices in the way that Lave and
Wenger (1991, 1998)—or the more recent work of Wenger (2006)—conceived them; therefore, this is not an appropriate framework for my study. However, there are aspects of this framework, such as how people interact with each other and the concept of peripheral participation that have informed my work.

**Affinity Spaces as a Conceptual Framework**

While there is not space within this proposal to provide a thorough examination of Gee’s theoretical approach to learning, I discuss some background on Gee’s work as context for understanding affinity spaces. I examine how Gee’s framework of affinity spaces (2005) has been used in research about fan fiction and gaming sites. Then, I describe how I intend to adapt his conceptual framework for use in my study of #sschat.

James Paul Gee, well known for his work in discourse analysis, is also recognized for his contributions to the field of New Literacy Studies (Rogers, 2004). In thinking about how people become “literate,” Gee does not conceive of literacy as an isolated act; he proposes it as much more than writing a passage or reading a particular text. The field of New Literacy Studies is particularly interested in examining the social or cultural “practices” that are part of being literate. “Practices” comprise socially recognized sets of behaviors, values, ways of speaking, and ways of using artifacts etc., that shape how people interact within different groups and serve to identify them as insiders to a particular group or groups.

Indeed, to be viewed as “literate” can depend on the expectations of a specific social or cultural group. For example, a researcher who has mastered the language of academia and has been published in well-respected journals may not be viewed as
“literate” in an online environment, such as a synchronous Twitter #chat (e.g., #sschat), unless she has developed the language, practices, and technology skills to be able to communicate within that educational community. Practices are, in fact, learned sets of processes and behaviors. As such, people learn these processes and behaviors by observing, imitating, and engaging with others within the specific cultural group. More specifically, in order to understand what is happening in online spaces used by educators, it is necessary to examine how people interact in the virtual spaces. This involves looking closely at the language used, the behaviors, the norms, as well as the challenges and affordances associated with technology and provided by the space (Gee as interviewed in Rogers, 2004).

In thinking about how people learn together online, Gee did not believe that Lave and Wenger’s (1991, 1998) communities of practice framework sufficiently explained what was happening. In particular, he found the idea of labeling a group of people as a community problematic. Inherent in “being a community” is the idea that some people get to be members of that community and some do not. Without clarity about what membership is—that is, what belonging means and the responsibilities that come with being a member—it is difficult to use the idea of community in any meaningful way (Gee, 2005; Gee & Hayes, 2012). To put it another way, what happens when people share the same physical space and engage in experiences together is different from individuals who go to affinity spaces because of their similar interests.

More than a decade ago, Gee (2005) coined the term, “affinity spaces,” to describe physical or virtual spaces where people connect based on shared interests,
develop and share resources, and engage in learning experiences. In these spaces, there were no expectations regarding participation. While researching what was happening in gaming sites, Gee realized that individuals were creating their own sites where people could connect, interact, and support one another for the purpose of extending their experiences with the gaming site. These “unofficial” companion sites attracted individuals who wanted to engage in activities (related to the games) such as learning how to be a better player, developing artifacts, creating new scenarios (modders), etc. Fan fiction sites are another type of affinity space that are commonly found online (see Black, 2008; Gee & Hayes, 2007; Hayes & Duncan, 2012; Magnifo, 2012).

Gee argues that placing emphasis on interactions rather than on meanings associated with membership makes sense when studying what is happening in online spaces. To clarify, the idea of a “space” is not about place, be it a geographic or virtual location. Rather, in this case, “space” refers to what happens when people come together based on shared interests, to interact, discuss ideas, and engage in shared activities. Typically, these spaces are found online but can include offline interactions, as well.

**Affinity spaces research.** Over the past ten years, interest in what is happening in online affinity spaces has been expanding. Research of online affinity spaces includes the examination of fan fiction (Black, 2008), video games (Hayes & Duncan, 2012), literacy practices (Curwood, 2013; Curwood et al., 2013; Lammers et al., 2012; Lewis, 2014; Magnifo, 2012), tensions (Lammers, 2012), gamers becoming designers (Duncan, 2010, 2012), learning to mod (Durga, 2012), identity and social learning (DeVane, 2012), and specialist language acquisition (Hayes & Lee, 2012). In this section, I highlight
findings in the empirical research that relate to online spaces for educators.

Magnifico (2012) studied five young women, ages 15-24, who wrote about adventures of their Neopets (virtual pets). These individuals were motivated by the knowledge that others would be reading their work. Individuals who participate in fan fiction sites are often motivated by the interactions of an authentic audience that responds to their writing by providing critique, support, and mentoring. In a similar way, researchers have found that educators, who feel isolated in their schools, turn to online spaces to share challenges they face in their schools with the hope that individuals with similar experiences will provide them with advice (Carpenter & Krutka, 2014; Forte et al., 2012; Hur & Brush, 2009; Rodesiler, 2014; Rodesiler et al., 2014; Wesely, 2013).

Lieberman and Pointer-Mace (2010) suggest that teachers need to make the practice public because it opens a “new kind of conversation about teaching” (p. 79) and new possibilities for learning.

Gee and Hayes (2010) discovered Tabby Lou, a 61 year old shut in, who at the beginning had limited technology skills. Spurred on by a desire to fulfill her granddaughter’s request for a purple potty for her Sims game, Tabby Lou serves an example of what can be accomplished when guided by passion and the support of an affinity space. Gee and Hayes credited her ability to complete the design for the purple potty because she was passionate, there were resources and support available from the affinity space. This is an important finding because Gee and Hayes argue that deep learning requires grit. Educators who participate in online spaces often describe themselves as passionate about learning (Carpenter & Krutka, 2014; Forte et al., 2012;
Herbert, 2012) but we do not know enough about what impact this characteristic might have on their instructional practice.

Individual and collective knowledge is promoted and nurtured in affinity spaces. Gee and Hayes (2010) describe Jade as a middle school student with strong tech skills, attended an out-of-school club for Tech Savvy Girls Club. While she often played online games, her passion was to be a designer. Supported by other participants within the affinity space, Jade soon learned the skills needed to design clothes for the Sims game and, in time, was able to transfer her skills to many new design challenges (Gee & Hayes, 2010). Likewise, educators in online spaces often engage in crowd-sourcing activities as a result of an individual’s request for resources (Carpenter & Krutka, 2014; Krutka, 2017; Rodesiler et al., 2014).

The similarities between the behaviors of participants in affinity spaces and online spaces for educators provides support for the use of Gee’s (2005) conceptual framework as an analytical tool for this study which is designed to examine what is happening in online spaces for educators, such as #sschat, that might help to inform and shape more formal professional development experiences. It is important to note that while the professional development literature suggests there is consensus around the core elements of effective professional development experiences, there has not been research that examines the degree to which the experiences in online spaces for educators reflects these core elements. Moreover, it is possible that by using a conceptual framework outside the field of teacher education, it may shed light on important nuances within the core elements of professional development or draw attention to new elements that had yet to
be identified. Such findings would, no doubt, be considered important contributions to the field of teacher education and teacher development.

**Applying Gee’s conceptual framework to online spaces for educators.** Based on his research, Gee (2005) has identified a list of features that commonly characterize affinity spaces (cf. Gee, 2007, 2012; Gee & Hayes, 2010, 2012; Hayes & Duncan, 2012). This list does not represent a required set of elements, but rather, a space would be considered an affinity space if it was more reflective of these features in general, than aligned with some other type of space or paradigm. Much of the work Gee has done with affinity spaces has revolved around gaming sites. While he has a keen interest in student learning, he has not looked specifically at online spaces for educators. The idea of adopting some of Gee’s features for a framework for analysis purposes has been done by other researchers but not for online spaces for educators (see Lammers et al., 2012). With that in mind, I employ the following seven defining features of Gee’s (2005) affinity spaces as my conceptual lens for this proposal because they offer a way to appreciate what is happening in online spaces for educators.

1. **Space is defined by common interests or passions—not race, age, sex, class, gender, etc.** People come to these spaces because they share a common interest and very often their personal characteristics are not made known to others. For example, people can make up any name they want such as @historyfriend; therefore, participants are not required to use titles—that suggest gender (e.g., Miss, Mr.)—as part of their name.

2. **Participants represent a wide array of experiences and levels of expertise.** Everyone is welcomed in the affinity space and the degree to which a person might explicitly engage in activities varies. Anyone can be an observer and
“lurking” (e.g., someone who observes what happens but does not post comments or information) is acceptable and encouraged as a way to become familiar with the practices that are an integral part of the space. All people, newbies and experts, interact in the same space although they may assume different roles. For example, during synchronous #sschat sessions, several people assumed responsibility for welcoming newbies and provided some simple tips to help people new to the space understand the common practices of the group.

3. Some portals are strong generators. An affinity space often has multiple access points, known as portals. These portals provide different ways for people to interact with content or people around their shared interest. Technological structures provide access to the content in different ways; as such, influence how interactions with content and other people occur. Some portals become strong generators of content. For example, the affinity space known as #sschat includes multiple portals (e.g., a Facebook page, multiple synchronous Twitter #chats that focus on different disciplinary concepts within social studies education).

4. Individual and collective knowledge is promoted and nurtured. Individuals are encouraged to gain knowledge that will benefit their own interests. In addition, new knowledge is created through interaction or collaboration with others and is viewed as collective knowledge. The collective knowledge is recognized as more complex than the sum of its parts. This knowledge can be observed in “various tools, artifacts and other technologies” (Gee & Hayes, 2012, p. 99). In online spaces for educators, participants will often engage in a “crowd sourcing” of resources regarding a particular topic, such as the Ferguson shooting (Krutka, 2017). The result (e.g., a list of resources) is posted online as a Google Doc open to the public and anyone can benefit from the collective knowledge.

5. Tacit knowledge is used and honored; explicit knowledge is encouraged. Tacit knowledge is viewed as intuitive or common sense thinking. This is in contrast to the type of “formal” knowledge that might be found as part of a tutorial or FAQ document. In the world of teaching, this is the “craft” part of practice. For
instance, in an online space for educators, a novice teacher might seek advice as to how to quiet down his students. A veteran educator might share several of her “tried and true” practices as a possible solution.

6. **People can participate in an affinity space in many different ways and at many different levels.** Affinity spaces provide opportunities for individuals to take on different roles and contribute to the space in different capacities. For example, participants who had experiences with implementing genius hour\(^4\) in their own classrooms took on the role of a mentor and provided advice regarding how to deal with colleagues and administrators who might be skeptical about its effectiveness to support student learning.

7. **Leadership takes on various forms.** In affinity spaces, individuals can be viewed as leaders because of the role they assume within the space (e.g., facilitate a synchronous Twitter chat). In addition, some people are seen as informal leaders because of their experiences (e.g., a tweet might be directed at a particular person for a response based on their past experiences).

The features I did not choose to use as part of my conceptual framework could be subsumed by other features (e.g., *roles are reciprocal*) or they reflect affinity spaces which are focused on gaming or similar spaces where being the “best” is a goal (e.g., *there are many routes to status.*) These seven features, while not the whole set, are nonetheless useful analytic axes or tools for exploring the extent to which current research does indeed focus on the opportunities for learning made available by online spaces for educators.

Teacher educators need to have a better understanding of what is happening in online spaces where teachers are taking responsibility for their own learning (Wesely, \(^4\) Genius hour (also known as “20% time”) refers to a class (or part of a class) which is structured such that students have the opportunity to explore their own passions.)
2013). It is difficult to appreciate what is happening in online spaces for educators because much of the research literature is atheoretical. Schlager and colleagues (2009) argue that current theories are not sufficiently nuanced to capture what is happening within the complex interactions occurring in online spaces. As a result, I posit Gee’s (2005) conceptual framework of affinity spaces will be useful for shedding light on aspects of online spaces for educators that have not be revealed using popular social learning theories. This framework is likely to reveal aspects of collegial interactions that might contribute to an educator’s sense of efficacy or professional satisfaction; two important considerations for teacher educators. It cannot be assumed that all educators come to these spaces for the same reasons or will have similar experiences. The features of the conceptual framework for affinity spaces take into consideration that participants have unique needs and interests. However, it is not the intention of this study to suggest that online spaces for educators should be viewed as a solution for scaling up professional development experiences—particularly when new national education reform initiatives are introduced—as has been put forward by the federal government (USDE, 2017). Rather, this study is designed to understand the factors within online spaces for educators that are valuable to educators; and, consequently be useful to know by those responsible for planning more formal professional learning experiences.

Having argued that Gee’s (2005) conception of affinity spaces is an appropriate analytical tool to make sense of what the literature tells us about the field of online spaces for educators and to conceptualize this study within the teacher education literature, I now turn to examine what the literature says about quality professional development
experiences. The School and Staffing survey data serves as a useful place to begin given its ability to provide a window into the realities of teachers’ experiences with professional development opportunities. Then I explore the professional development literature in light of the factors that are believed to contribute to effective professional learning experiences. I conclude with a discussion of what has been reported as the barriers to quality professional development.

**Expectations and Realities of Formal Professional Development in 21st Century**

The literature tells us that there is “consensus” about the type of professional learning experiences likely to lead to teacher learning (Darling-Hammond et al., 2009; Desimone, 2011a; Desimone & Garet, 2015; Guskey & Yoon, 2009; Hill et al., 2013). Hill and colleagues (2013) claim that “scholars have identified program design elements thought to maximize teacher learning, including a strong content focus, inquiry-oriented learning approaches, collaborative participation, and coherence with school curricula and policies” (p. 477). However, it is widely accepted that many educators are not participating in high quality professional learning experiences despite knowing the features that lead to teacher learning (Darling-Hammond, 2015; Darling-Hammond, 2009; Wei et al., 2010). According to the Teaching and Learning International Survey (TALIS, 2014) results from 34 countries and more than 100,000 middle school teachers and principals, teachers from the United States “receive less-useful feedback, receive less-helpful professional development, and have less time to collaborate to improve their work” (Darling-Hammond, 2015, p. 1). Darling-Hammond (2015) claims that a lack of access to quality professional development may be a result of school/district (returning
to) offering “one-shot, top-down, ‘drive-by’ workshops” (p. 3) as a result of No Child Left Behind’s accountability measures taking center-stage.

Based on an analysis of the latest U.S. Schools and Staffing Survey (2011-2012), more than 90% of teachers participated in professional development experiences (i.e., related to content area, use of computers for instruction, reading instruction, and classroom management). However, only 60% of the participants found those experiences that targeted their content area to be “useful” or “very useful.” With regard to professional development about technology, more than 40% did not find those experiences to be “useful” or “very useful.” This is troubling because many believe that educators will need to participate in effective professional development programs to align their instructional practices with the expectations of the current national education reform initiatives (Gulamhussein, 2013; Hill et al., 2013; Kober & Rentmer, 2011).

Since my study is focused on examining what is happening in online spaces for educators that might help shape and inform more formal professional learning experiences, it is critical to have knowledge of the factors that contribute to teacher learning and an awareness of the realities involving educators’ participation in professional learning experiences. There may be elements of online spaces that relate to meeting the educators’ needs and interests (e.g., affordances of digital technologies, shifting participation roles) that could address some of the challenges that are commonly associated with current professional learning experiences or provide a more nuanced understanding of one or more of the features that researchers have found are critical for teacher learning.
One way to understand the current state of professional development in the United States is by examining the results from the Schools and Staffing Survey. The discussion that follows is based on my analysis of the data from the most recent Schools and Staffing Survey (2011-2012) in combination with findings from two commonly cited reports: *Professional Learning in the Learning Profession: A Status Report on Teacher Development in the U.S. and Abroad* and *Professional Development in the United States: Trends and Challenges* (Darling-Hammond et al., 2009; Wei et al., 2010 respectively). These studies used data from the Schools and Staffing Surveys (2000, 2004, 2008), the 2005 Met Life Survey, and the 2008 National Staff Development Council Standards Assessment Inventory. The School and Staffing Survey is a written questionnaire which is sent by mail to randomly selected teachers and principals across the United States every few years. It includes many of the same questions about teaching in schools (e.g., professional learning experiences) each time it is released making it possible for researchers to identify trends over time. To gain a sense of its reach, the 2011-12 survey was issued to over 50,000 public and private teachers and the response rate was 80% (Goldring & Bitterman, 2013).

In this section, I discuss the findings from these reports in relation to what the research literature says about quality professional development. As such, I specifically consider the data regarding time and intensity, structure, content, and context of professional learning experiences (factors identified as contributing to quality professional development) in order to have a better picture of the lived experiences of teachers in the United States. Then I provide a discussion of some of the barriers to
providing quality professional learning experiences. Finally, I consider how the literature about the expectations and the realities of professional learning experiences in the 21st century relates to my study.

**Time and Intensity**

In a review of the results from the 2004 and 2008 Schools and Staffing Survey, Darling-Hammond and colleagues (2009) found that almost half of the teachers reported that they spent less than 16 hours per year participating in professional development experiences. Data from the 2011-2012 survey was reported in the number of hours according to specific professional development area of focus. For example, almost half of the teachers that reported hours of professional development in their content area indicated they had 16 hours or less. This suggests that many teachers are spending less than two days per year attending professional development focused on their content area. While the research varies in terms of the precise number of hours required for professional development to be effective, Yoon and colleagues (2007) found that approximately 50 or more hours of professional development focused on a specific topic are necessary to see an impact on student achievement. Desimone (2011a) recommends that professional development experiences should occur over a semester and last 20 hours or more. Whereas Guskey and Yoon (2009) recommend professional learning experiences should last at least 30 hours, they emphasize that more hours are not necessarily better unless effective strategies have been employed. In their view, effective

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5 The survey asked about professional development experiences in the following areas: content area, technology, reading, classroom management, teaching students with disabilities, teaching limited-English proficient students.
does not mean a set of “best practices” but rather consideration should be given to designing strategies that reflect the “specific content involved, the nature of the work, and the context in which the work took place” (Guskey & Yoon, 2009, p. 497). In a similar way, Darling-Hammond and colleagues (2009) did not specify a number of hours but posited that effective professional learning occurs when it is “intensive, ongoing, and connected to practice” (p. 6).

Clearly, there does not appear to be complete agreement on the number of hours necessary in order for professional development to be effective. However, there is consensus that professional development experiences should relate directly to the teacher’s work and be sustained over time to be considered meaningful. With that in mind, it is conceivable that hour long synchronous Twitter #chats that occur synchronously and focus on areas of professional practice might be conceived as conducive spaces for teacher learning.

**Structure**

Responses from the 2011-2012 Schools and Staffing Survey revealed that more than 90% of the teachers who participated in professional development experiences attended workshops, conferences or training sessions. Although the survey does not define what is meant by a workshop or training sessions, the large affirmative response may be the result of district-wide sessions teachers receive on newly adopted programs or to fulfill state regulations (e.g., dyslexia training, recognizing child abuse signs). Nonetheless, the results are surprising given that most studies portray workshops as ineffective. In many cases, workshops are considered less effective because they are not
designed to provide teachers with support when they attempt to implement new instructional practices. This is problematic because the research literature indicates that teachers struggle the most during the implementation phase. Without follow-up support, teachers will often abandon new instructional approaches and return to less effective practices (Darling-Hammond, 2009; Gulamhussein, 2013).

Another issue with workshops was related to the facilitator. Very often in workshops, an outsider with perceived expertise shares his/her knowledge about a topic and then teachers are expected to replicate what they are told (Darling-Hammond, 2015). This type of workshop model with “expert as facilitator” is in sharp contrast to an “active learning” approach which DeSimone (2011a) argues is one of the core features commonly found in professional learning experiences that lead to teacher learning. Active learning approaches include experiences for teachers to observe and receive feedback, engage in conversations about student work or lead discussions.

Interestingly, Guskey and Yoon (2009) offer a different perspective on the effectiveness of workshops and institutes. Based on their meta-analysis of nine studies, they concluded workshop experiences may actually be more effective than previously believed. They found that workshops that intentionally included the use of active learning experiences and opportunities for educators to adapt strategies to their unique teaching situations contributed to changes in participants’ instructional practices. Unfortunately, they do not clarify whether these are “one-shot” workshops or are part of an institute which typically includes multiple sessions. This suggests that more research is needed to understand the types of workshop experiences that might promote learning.
A possible result of studying online spaces for educators and performing a close analysis of the interactions may provide useful understandings about how to design more formal learning experiences using a workshop approach that foster teacher learning.

Another format for professional development programs that is gaining popularity involves job-embedded experiences. Some examples of job-embedded approaches include action research, peer observation, and coaching. Researchers have found that job-embedded professional development programs have led to changes in instructional practices (DeSimone, 2011a; Guskey & Yoon, 2009; Putnam & Borko, 2002). Results from the 2004 Schools and Staffing Survey indicated that almost half of the responding teachers report having participated in these types of experiences. However, it is difficult to determine their effectiveness because there were no follow-up questions about the amount of time, quality or design of these specific experiences. Additionally, the most recent Schools and Staffing surveys (i.e., 2008, 2011-2012) did not ask teachers specific questions about the type of job-embedded professional development experiences that they may have participated in making it impossible to draw conclusions about trends regarding this type of professional learning experience. This is surprising because studies have shown that job-embedded professional learning experiences have the potential to lead to changes in instructional practices (Darling-Hammond et al., 2009; Grossman & Hirsh, 2009; Killion, 2013; Wayne, Yoon, Zhu, Cronen, & Garet, 2008; Wei et al., 2010).

**Learning in groups.** Over the past three decades, researchers have examined different ways in which learning occurs when people with similar interests come together. Some examples of these approaches include professional learning communities
(Darling-Hammond et al., 2009), inquiry communities (Cochran-Smith & Lytle, 1999), communities of practice (Lave & Wenger, 1991, 1998) and teacher networks (Lieberman, 2000; McDonald & Klein, 2003; Klein, et al., 2015). These methods are commonly used in educational settings as a means by which educators can examine their practice. Often, they are prompted by or focus on some aspect of school reform. For example, teachers may work together to address issues related to student learning, such as incorporating inquiry-based instruction in their science classes. Unlike “expert as facilitator” workshop models, these approaches take advantage of both insider (e.g., teacher knowledge) and outsider knowledge (e.g., knowledge created by research). Additionally, it is a widely held view that educators who engage in these types of group learning experiences benefit from relationships that are formed. These relationships are based on norms, both implicit and explicit, and are frequently described as collegial and collaborative. Indeed, the idea of educators learning together assumes a social view of learning (e.g., social constructivism) rather than a Cartesian perspective of learning (Seely Brown & Adler, 2008).

While many researchers hold the view that learning in groups has merit and is effective, Wei and colleagues (2010), in their nation-wide analysis, found that less than one in five educators believed that a climate of cooperation was present in their school. This suggests that a majority of educators do not have the opportunity to learn in collegial groups. This finding is problematic given DeSimone’s (2011a) claim that changes in instructional practice are likely to happen when teachers of the same grade, subject or school engage in professional learning activities together as a community of learners.
She refers to this characteristic as “collective participation” and claims it is one of the core features found in effective professional development models.

With such importance given to collective participation, it may be difficult to design effective professional development experiences in schools or districts where teachers are not comfortable learning together. Research has shown that teacher networks comprised of teachers of the same content area/grade engage in collegial learning groups with educators from other schools can be effective (Lieberman, 2000; McDonald & Klein, 2003; Klein et al., 2016). However, geographic, economic, and time constraints have made it difficult to implement this approach on the type of scale that is currently needed to prepare millions of teachers to meet the expectations of the latest national education reform initiatives. In this case, an examination of online spaces for educators that focus on a particular content area or grade might reveal important insights about the type of collaborative learning environments that are beneficial for educators with specific needs and interests.

Content

The results from the 2011-2012 School and Staffing Survey painted a disappointing image of the quality of the professional development experiences engaged in by teachers. It was reported that only 60% of the teachers found the professional development experiences that focused on subject areas that they taught was useful or very useful. Darling-Hammond and colleagues (2009) found that less than half the teachers who responded to the Schools and Staffing Survey indicated that their professional development experiences about reading instruction or using computers for instruction
were “useful” or “very useful.” Interestingly, more than 60% of the teachers skipped the questions about usefulness of professional development designed to support teaching students with disabilities or those learning English. While no explanation was given for these high percentages, it conceivable that the respondents did not receive any professional development in these areas and chose not to answer the question. Given the increasing number of students who are English language learners in schools, it is possible that studying online spaces for educators will provide some insights about the types of challenges educators face in their schools and the type of resources that they are seeking. This information would be no doubt be useful for teacher educators responsible for preparing teachers and those who design and implement more formal professional learning experiences.

While context and coherence may be critical features of effective professional development, researchers have argued that these features do not work in isolation (Allen & Penuel, 2015; Desimone, 2011a; Yoon et al., 2007). For example, in a recent study that examined the ways in which teachers make sense of science practice-focused instruction and the Next Generation Science Standards (a set of standards developed by a collaborative of states and professional organizations), Allen and Penuel (2015) found that coherence was apparent in some but not all of their professional learning experiences leading to a range of actions taken by the teachers. A review of interview responses and teacher-created artifacts suggested that teachers benefited when they had the opportunity to work collaboratively to make sense of incongruities between the expectations of the standards and curricular materials provided by the school. When the teachers did not
have the opportunity to discuss how to enact or assess the new science practices, they reverted to their traditional way of teaching. This suggests that promoting change in instructional practices may require more than professional learning experiences focused on a particular content area. Based on this study, a change in a teacher’s behavior may be dependent on the interplay between what they are learning and the opportunity to learn with others.

**Context**

Research has shown that determining structural features of professional development models based on contextual factors (e.g., people who attend, context in which they teach) are more likely to lead to effective experiences than instituting a set of “best practices” (Guskey & Yoon, 2009). For example, a number of studies report that the needs of novice teachers can be very different as compared to veteran teachers (Darling-Hammond & McLaughlin, 1995; Feiman-Nemser, 2001; Lieberman & Pointer-Mace, 2010). According to the 2008 Schools and Staffing Survey, one in five novice educators do not have a mentor (Darling-Hammond et al., 2009). In 2011-2012, survey less than 15% reported that they worked closely with their assigned mentor teacher. These beginner teachers—often working under a provisional certificate—are likely to be employed in rural or urban districts with large populations of low-income and minority students. Without access to a mentor, a novice teacher is likely to find it challenging to support his/her students with diverse learning needs because he/she is unlikely to have the pedagogical content knowledge or skill set to address this challenge (Lucas, Villegas, & Freedson-Gonzalez, 2008).
Barriers

Many of the reasons that it has been challenging to provide effective professional learning experiences at the school, district or state level have already been discussed. But given my research question—what can be learned from online spaces, such as #sschat, that can help inform and shape more formal professional learning experiences—it is appropriate now to take a close look at all of the remaining barriers teachers have identified with the possibility that my study may be able to shed light on potential solutions. Studies have indicated that implementing face-to-face experiences can be problematic due to geographic, economic, and time constraints (Dede et al., 2008; Desimone, 2011a; Killion, 2013; Mizell, 2011; TALIS, 2014; Schlager et al., 2009; Yoon et al., 2007). For example, teachers who work in rural locations may be the only teacher of a grade or subject in his/her school. As a result this teacher cannot benefit from engaging in learning experiences with colleagues that share the same interests or have similar concerns. It is possible that my study of an online space for educators that is comprised of participants from geographically dispersed areas of the world will be able to provide some insights that may help inform and shape more formal professional learning experiences. To be clear, I make no claims about participants’ learning in this online space. However, understanding how educators create and sustain an environment where educators come to interact with others with similar needs and interests may provide helpful insights for teacher educators responsible for designing professional learning experiences.

Another barrier to providing quality professional learning experiences for schools
and districts can be insufficient funding. Typical costs include fees for consultants and experts, release time for teachers to participate in professional learning/job-embedded experiences (e.g., substitute pay), travel costs, registration fees, etc. In some cases, state departments of education or universities provide the funding for these costs. However, responses from the 2011-2012 Schools and Staffing Survey indicated that only a small portion of the teachers received reimbursements for costs associated with college tuition (10%), conference or workshop fees (28%), and travel and associated costs (20%). It follows that regardless of who pays, when new state-wide initiatives are implemented (e.g., standardized assessments) and large-scale professional development is needed, these costs can be quite high (Mizell, 2011). As a result, teacher educators and decision-makers at the district and state level may want to consider what is happening in online spaces for educators as a way to think about how these costs might be streamlined, especially since the focus of experiences related to current education reforms will be similar around the country.

Research indicates that another challenge results when administrators at the state or district level are responsible for selecting topics for large group professional development experiences. Typically, the focus of these sessions does not reflect the individual needs of the participants (Tucker, 2011). Even though state and district administrators may use data to determine topics for professional development programs, it is unlikely that the unique experiences that teachers bring to the session have been considered (Grossman & Hirsh, 2009). In spite of the personal nature of learning, it is surprising that the 2011–2012 Schools and Staffing Survey data indicated that only about
12% of teachers report they had a “great” influence on determining professional development content in their district. Although a top down approach may appear to be cost effective or efficient for states and districts, there is concern about the value of the professional learning experiences if they do not lead to teacher learning or more effective instructional practices. It stands to reason that a study of online spaces for educators that incorporates synchronous Twitter #chats, among other participant-driven activities, may be able to provide valuable insights for those who want to consider the educators’ perspectives when designing more professional learning experiences.

Having presented the research about the qualities of professional learning experiences and the data that reflects the current realities related to implementation, I briefly consider how this literature relates to my study. Individuals may go to online spaces for educators to address some of the issues related to the mismatch between what the research says about the qualities that should be present in professional learning experiences and their realities. There is consensus in the literature that indicates that professional learning experiences should be designed to promote inquiry, be connected to practice and context, collaborative, and sustained. An examination of online spaces for educators might contribute to a deeper conceptualization of some or all of the features that lead to quality professional learning experiences.

The individuals that will be part of my study voluntarily engage in an online space for educators on their own time. While there is no evidence that they are learning, it can be assumed that the participants receive some benefits or find some aspect of their online experiences valuable. For instance, some educators may engage in experiences in online
spaces because they bring a sense of professional satisfaction. In this case, it would be important to know what factors in the online space for educators contribute to this feeling. Such knowledge might be useful for teacher educators who are responsible for preparing pre-service teachers given the high rate of teacher attrition during the first five years of a teacher’s career (Ingersoll & Smith, 2003; Ingersoll, Merrill & Stuckey, 2014; Cochran-Smith, 2004).

Individuals are drawn to affinity spaces because of their needs and interests associated with their passions and shared interests. Gee (2005) asserts that affinity spaces support and nurture the development of individual and collective knowledge. Investigations into the conditions and/or interactions in these online spaces that support a differentiated approach to gaining knowledge may be useful to teacher educators who are tasked with supporting educators who bring with different levels/types of experience and expertise to professional learning experiences. Further, affinity spaces cultivate a fluid approach to leadership and participation roles. Using an affinity spaces framework as a conceptual lens may provide useful insights that will support the type of collaborative professional learning experiences that research has deemed is critical but is not the current reality in most school districts.

In the next chapter, I describe the methodology that I used for data collection and data analysis regarding my study of online space for educators, known as #sschat.
CHAPTER 3 METHODOLOGY

The purpose of this study was to examine what was happening in an online space designed for people interested in social studies education, known as #sschat, and to consider how the understandings gleaned from interactions in this space might inform and shape more formal professional learning experiences. From a practitioner’s perspective, findings from this study may contribute to enhancing our understandings of the types of experiences that educators design and voluntarily participate in to meet their professional needs and interests. It follows that this type of knowledge could be useful to teacher educators responsible for planning more formal professional learning experiences.

This chapter begins with a discussion of the factors that informed the decisions I made regarding the design of this study. I draw attention to the uncertainty involving how researchers should investigate online spaces. Then I explain how I selected #sschat for the setting for this investigation. As a way to orient the reader, I share a brief description of this online space and how it originated. I identify the various portals6 that were under study in this investigation and provide clarity around terminology I use in my discussions about #sschat. An examination of the types of data—observations as a participant of #sschat, an online questionnaire, and online data—that were collected follows. Then I describe the systematic approach to data analysis that I employed. Finally, I explain the steps I followed to promote a sense of trustworthiness in the conduct and findings of my study and examine the assumptions that I brought to this

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6 A portal is an entry point to one of the (online) spaces where #sschat participants engaged with one another.
inquiry.

**Design of the Study**

The question that guides this qualitative study was designed to explore the complex interactions that are happening in #sschat, an online space for educators. Questions that are concerned with understanding what is happening are best suited to a qualitative research design (Merriam, 2009; Merriam & Tisdell, 2015; Stake, 1995, 2013; Yin, 2009, 2017). The design of this study—interpretive qualitative inquiry—is intended to promote a coherent frame for investigating a question that seeks to discover patterns in the social interactions of #sschat for the purpose of understanding what is happening in this online space and possibly applying these ideas to new situations (Lankshear & Knobel, 2004; 2017).

It is appropriate to acknowledge that determining the design of this study was problematic because the study of online spaces for educators is a burgeoning field, and, consequently consensus regarding the best methods of research design, and data collection and analysis has yet to be reached. Part of the process of deciding the type of research that was best aligned with my research question and conceptual framework was to eliminate other potentially suitable approaches. For example, some researchers have experimented with applying research practices from ethnography as a way to investigate online spaces. These approaches are referred to as webnography, netnography, or digital ethnography (Boellstorff et al., 2012; Garcia, Standlee, Bechkoff, & Cui, 2009; Hine, 2008; Kozinets, 2010; López-Rocha, 2010; Prior & Miller, 2012). As such, use of ethnographic methods imply a sustained and intimate look into the culture a particular
group of people and requires the researcher to be immersed in that group and participate in their social experiences. My study was not ethnography for the following reasons. While I “immersed” myself in a various experiences in #sschat as a “participant,” the time period of my study was limited to one month and the purpose of my study was not intended to investigate the culture of the #sschat. I took a stance of a "participant" in #sschat but I never had conversations with the participants about why they engaged in #sschat. (More discussion of my stance as a researcher later in this chapter.)

Other researchers—using a different theoretical framework—may have conceived of a study similar to mine as a case study. However, employing any research design (e.g., case study) that had specific expectations regarding the boundaries of the study (Merriam & Tisdell, 2015; Stake, 1995, 2013; Yin, 2009, 2017) was problematic for me because it would not align well with conceptual framework that guided this study. One of the key elements of Gee’s (2005) conceptual framework of affinity spaces recognizes the knowledge that participants bring to the affinity space (in their head and the websites they share) as being an integral part of the collective knowledge of the affinity space. As a result, I set case study design aside because it was difficult to draw boundaries around my study in the way that is typically associated with that type of research.

Serving as an example of another way to think about researching online spaces for educators is Curwood and Biddolph’s (2017) investigation of an online space for educators, known as #ozengchat. They argued that all field sites do not have exact boundaries that can be defined by a physical location; and, thus described #ozengchat as a “networked field site” (p. 85) as a way to foreground the “complex interactions between
and among individuals, tools, and contexts across time and space” (p. 85). My view of online spaces for educators is similar to their conception of these types of spaces, particularly with regard to the messiness associated with the boundaries of online spaces such as #ozengchat or #sschat. Curwood and Biddolph did not mention the use of any type of digital ethnographic methods in their description of their methodology. Instead, they emphasized their focus on designing survey and interview questions with the intent of gaining an understanding of how and why English teachers were using #ozengchat for professional learning. Even though Curwood and Biddolph reported on their investigation after my data collection period ended, their conception of a networked field of study and the use of data collection and analysis methods that examined the interactions among the participants occurring within the #ozengchat online space lend support to the decisions I made in designing my inquiry.

For the purpose of studying what was happening in #sschat, an online space for educators, as a way to help inform and shape more formal professional learning experiences, I made the decision to construct a basic qualitative study. This was the most appropriate approach for my study because it allowed me to focus on designing an investigation that was well-aligned with my research question and conceptual framework. Lankshear & Knobel (2017) contend that novice researchers—such as myself—are well served by designing a study that “demonstrates coherence and elegance” (p. 3) and then implementing it “competently” (p. 4). It is for this reason that I have chosen not to overcomplicate my study; and, instead ensure that the focus is squarely placed on attending to structuring data collection and analysis methods that are well-aligned to the
purpose my study. With regard to what to call this study, Merriam and Tisdell (2015) maintain that since all qualitative research is interpretative, they prefer to label studies that focus on understanding “(1) how people interpret their experiences, (2) how they construct their worlds, and (3) what meaning they attribute to their experiences” (p. 24) as a basic qualitative study. Given that I seek to understand what is happening in an online space designed by and for educators as a way to consider how to construct more formal professional learning experiences, a focus on these three premises is well-aligned to the purpose of my study and my conceptual framework; and, therefore substantiates the creation of a basic qualitative study.

**Selecting the Site**

The online space for educators that is the focus of the present study is one that I have been observing for several years and has been the setting for two pilot studies that I have conducted. I have found it fascinating to observe the manner in which the “setting” for my study has changed over the years in response to the needs and interests of the #sschat participants. In 2012, I established a set of criteria that described the type of online space that I wanted to investigate for my first pilot study based on my experiences as a participant in several online spaces for educators. Then I did a Google search for “online teacher learning communities” and “online teacher networks” which resulted in identification of a wide variety of online spaces for educators. As a next step, I visited potential sites for my study (e.g., #edchat, #sschat, pbteachers.org) and screened them according to the following criteria (cf. Booth. 2012). I was interested in observing a site in which participation was voluntary, free, and came with no expectation of credit or
certification for participating in it. In addition, my criteria required that the online space for educators was in existence for at least one year at the time of my search, included evidence of shared leadership, and consisted of participants who were geographically dispersed. Finally, I wanted to study a space that was created through grassroots efforts rather than one that was representative of or connected to a formal organizational/institutional structure (e.g., professional organization, for-profit entity, for research). Given that there were many online spaces for educators that met the above criteria at the time of my first pilot, I decided to investigate #sschat because it was a space that targeted social studies educators and my “insider” status as the state social studies coordinator meant I already was familiar with the pedagogical approaches and instructional strategies commonly used by educators in this field and the focus of many of the synchronous Twitter #chat sessions in this space.

My earlier pilot studies of #sschat informed the design of this study. In two previous pilot studies, I considered the potential for leadership opportunities and the factors that attracted educators to #sschat. These experiences allowed me to experiment with different data collection methods as well as different stances as a researcher (e.g., observer, participant-observer). As an observer, I documented how other participants engaged in the online space by describing what I saw was happening. As I participant-observer, I engaged in interactions with other participants and took notes about my experiences and observations (e.g., Merriam & Tisdell, 2015). One benefit of continuing to study #sschat over time is the insights I’ve accrued regarding how this space and the participants have changed—and continue to change—over time. This type of shift would
be difficult to recognize without having longtime involvement in this space.

**The setting.** The online space for educators that was the focus of this one month long study was #sschat (data collection ran from September 17, 2015 to October 17, 2015). #sschat is an online space for educators that provided opportunities for its participants to engage in discussions, share or access resources, and seek or offer support regarding topics related to social studies education. It started as a weekly (synchronous) Twitter #chat in July 2010 by two social studies educators, Ron Peck and Greg Kulowiec. As documented by Krutka (2017), Peck and Kulowiec participated in Twitter #chats associated with #edchat—a Twitter #chat dedicated to educators of all subjects and grades—but decided they wanted to engage in more social studies focused discussions and, thus, created the #sschat Twitter #chat. A Twitter #chat is typically a one hour, synchronous discussion about a pre-determined topic that occurs online during a regular time each week or month. By way of example, during the time of this study, the topics for the synchronous #chats addressed contemporary issues (e.g., *Changing Attitudes Toward One-Time Heroes*), instructional strategies (e.g., *Differentiation in the Geography Classroom*), and interdisciplinary approaches (e.g., *Implementing Genius Hour in the ELA/SS Classroom*) to name a few (see Appendix B for #chat topics and questions). Participants engaged in these discussions by going to a specific #hashtag webpage and posted responses to 6-8 #chat questions that were posed by the person leading the #chat. In terms of responses, participants freely shared resources (e.g.,

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7 In Twitter, a hashtag (number symbol, #) serves as a sorting device. All tweets that include the same characters after the hashtag (e.g., #hsgovchat) appear on the same webpage regardless of when they are posted.
websites, participant-created blogs, photographs of students), ideas about teaching, made and responded to requests, and provided support related to the topic. Since the initial creation of the weekly synchronous #sschat sessions in 2010, this online space has expanded to include other portals\(^8\) (e.g., #sschat Facebook page, book studies, unconferences) and transitioned to new leadership (Krutka, 2017).

As a point of clarification, I use #chat(s) as a way to discuss what happened during the synchronous, one hour long discussion(s) that occur using a specific Twitter hashtag (\#). Throughout this dissertation, I have chosen to include the hashtag (\#) before the word #chat as a way to signal to the reader that I am talking about the #chat experience and not just a random interaction (chat) among two or more participants. I also use the \# symbol before the word, #hashtag, to remind the reader that I am referring to a Twitter space where people go online to post and read comments about a specific topic.

Moving forward to the time of this study (September 17, 2015–October 17, 2015), the #sschat affinity\(^9\) space included multiple portals where participants could interact with others that were interested in social studies education (see Table 3.1).

*Portals Associated with #sschat Affinity Space during September–October, 2015*

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\(^8\) A portal is an entry point to one of the (online) spaces where #sschat participants engaged with one another.

\(^9\) My forays into this space suggested that #sschat was indeed an affinity space because it displayed seven key characteristics that are commonly associated with such a designation: a focus on a shared interest, multiple portals\(^9\) within the space, various forms of leadership, participants represented a wide array of experiences, participation occurred in different ways, individual and collective knowledge was promoted, and tacit knowledge was honored and explicit knowledge was encouraged.
Table 3.1

Portals Associated with #sschat Affinity Space during September–October, 2015

<table>
<thead>
<tr>
<th>Name</th>
<th>Daily Twitter Feed</th>
<th>Synchronous Twitter #chats</th>
<th>Website</th>
<th>Facebook Website</th>
<th>Storify Webpages</th>
<th>Google Doc</th>
</tr>
</thead>
<tbody>
<tr>
<td>#sschat (^{10})</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>#hsgovchat</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>#worldgeochat</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>#engsschat</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Specifically, there were four #hashtags (i.e., #engsschat, #hsgovchat, #sschat, #worldgeochat) where participants engaged in synchronous #chats and posted tweets to these daily Twitter feeds, one #sschat Facebook group, two stable websites where co-leaders/moderators posted information that remained “relatively” the same over time (e.g., logical information about the synchronous #chats), one Google Doc that was primarily used to collaboratively construct the synchronous #worldgeochat questions, and four Storify websites where the archived #chats were stored. All of these elements—or portals—were linked (in some way) to the sschat.org website. For example, as will be discussed in Chapter 5, a table displayed each of the Twitter #hashtags that I have identified as part of the #sschat affinity space along with logistical information for finding the synchronous #chat sessions (see Figure 5.10). In addition, the About Us webpage on the #sschat.org website describes the history of the #sschat space along with

\(^{10}\) This refers to the weekly #sschat space.
the creation of each of the #hashtags that are the focus of this study. Tweets with a link to the #sschat Facebook page, hsgovchat.blogspot.com website, and the #worldgeochat Google Doc were posted to the respective #hashtags multiple times during this investigation, serving to concretize their association with the #sschat affinity space.

To avoid confusion between using the term #sschat to indicate a particular affinity space, the weekly Twitter #chat that occurred using the #sschat hashtag, and the tweets that were posted to the daily #sschat Twitter feed, I referred to each type of interaction with a different name (see Table 3.2 below).

Table 3.2

<table>
<thead>
<tr>
<th>Description</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>#sschat affinity space</td>
<td>#sschat</td>
</tr>
<tr>
<td>weekly #sschat Twitter session</td>
<td>weekly #sschat</td>
</tr>
<tr>
<td>tweets that are posted at any time using #sschat</td>
<td>daily #sschat</td>
</tr>
</tbody>
</table>

During the time of the present study, each of the #hashtag spaces had several key people who served in leadership roles and completed tasks associated with the synchronous #chat sessions (e.g., facilitating the synchronous #chat or arranging for a guest facilitator, announcing upcoming topics, archiving chat session). In the case of #engsschat, #hsgovchat, and #worldgeochat, these key people referred to themselves as co-moderators when they introduced themselves at the start of the synchronous #chat sessions and in their Twitter profile. With respect to the weekly #sschat space, three key people referred to themselves as co-leaders (in the same manner as described above) and
also assumed responsibility for posting announcements, resources, and discussion prompts to the #sschat Facebook page, along with maintaining the sschat.org website (D. Krutka, November 12, 2014, personal communication). To simplify discussions across all the #hashtag spaces involving these key people in leadership roles, I use the terms, co-leader/moderator or co-leaders/moderators.

During the time of my study, there were no face-to-face events although there was information posted on the #sschat.org website about the previous year’s unconference. However, participants posted tweets inquiring about who were attending the National Social Studies Conference. The weekly #sschat co-leaders created and posted a specifically crafted image that was called “a teaser” advising participants of the #sschat unconference that took place at the National Social Studies Conference (see Figure 3.1) in November 2015.

Figure 3.1. #sschat Facebook announcing upcoming #sschat unconference.
Data Collection

Since trust is sometimes difficult to establish in an online space that does not have a regular face-to-face component, some researchers depend upon gatekeepers who are willing to introduce them to the participants as individual who can be trusted (López-Rocha, 2010; Merriam & Tisdell, 2015). I introduced myself to the weekly #sschat co-leaders via email and explained my interest in investigating the #sschat affinity space. In November 2014, I attended the #sschat unconference as a way to connect with these co-leaders in person and answer their questions about my study. During the data collection period, these co-leaders graciously acknowledged their support of my study by posting information about my online questionnaire on the #sschat Facebook page (see Figure 3.2) and by retweeting my tweets requesting participation in my online questionnaire.

Data were collected for this study for one month from September 17, 2015 to October 17, 2015 and came from three primary sources: (a) an online questionnaire, (b) online data from the #sschat affinity space, and (c) my observations (see Table 3.3 below). I begin by describing the online questionnaire that I used and the results. As described earlier in this chapter, the study of online spaces for educators is a burgeoning field of research and there is much discussion about data collection and analysis processes. Given the lack of clarity regarding how to classify online data, Merriam and Tisdell (2015) suggest researchers limit their discussion to identifying the various components of the online data and how they will be acquired. However, I have chosen to describe the online data collected for this study in terms of the processes that were used to collect the data for the purpose of making my decision-making process transparent and
to create an audit trail for the reader and potential future researchers.

Table 3.3
*Timetable of Data Collection by Data Source*

<table>
<thead>
<tr>
<th>Data Source</th>
<th>Week 1</th>
<th>Week 2</th>
<th>Week 3</th>
<th>Week 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online questionnaire</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>#engchat synchronous #chat</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>#hsgovchat synchronous #chat</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Weekly #sschat synchronous #chat</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>#worldgeochat synchronous #chat</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>#engchat daily feed</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>#hsgovchat daily feed</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Weekly #sschat daily feed</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>#worldgeochat daily feed</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>#sschat Facebook page</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>sschat.org website</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>hsgovchat.blogspot.com</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>#worldgeochat Google Doc</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

**Questionnaires**

I created an online questionnaire comprised of a combination of closed questions in the form of multiple choice (e.g., number of years spent working in the field of education) and open-ended questions designed to elicit short responses (e.g., what are the benefits of #sschat) (see Appendix A for a copy of the questionnaire items). The information collected by the questionnaire was not used to make generalizations but rather to aid in my understanding of the participants and how they perceived themselves as benefitting from participation in #sschat and providing support for triangulation. I
sought approval to post links to the questionnaire during the weekly #sschat sessions and to the daily #sschat feed (three times per week for four weeks) from the #sschat co-leader and appreciated the willingness of the #sschat co-leaders to post my request to the #sschat Facebook page three times (see Figure 3.2 below).

Figure 3.2. Example of #sschat Facebook post requesting participants complete the survey for this study.

Although, this approach has been used by other researchers of this space in the past and produced desired results (see, for example, Carpenter & Krutka, 2014), I was disappointed by the small number of responses (n=12). However, since there were so
few responses and they were designed to be informative rather than conclusive, it was not an issue and responses were not coded alongside tweets, but kept separately and used for illustrative purpose only in reporting key findings. Interestingly, in response to a question about providing an example of something that was learned from participating in #sschat, one participant said, “This list would be too large to type in a single survey!” This suggests that any future studies likely would benefit from interviews where participants could devote more time (and space) to answer this question and others like it.

**Online Data**

Given that the purpose of this study was to gain an understanding of what was happening in an online space for educators, known as #sschat, as a way to help inform and shape more formal professional learning experiences, it is reasonable to assume that engaging in this space as an insider was likely to shed light on aspects of the interactions that occurred in this space in a manner that would not be possible through solely reviewing responses to a questionnaire. Insider, in this sense, refers to someone who is part of a group and often knows information that is not generally known by the public. As a researcher—who assumed the stance of an insider participating in all of the synchronous #chat sessions that occurred during my month-long study and going to each of the daily Twitter feeds and the #sschat Facebook webpage every day—I collected data through observations, capturing digital records, and taking field notes.

**Observations.** Assuming the stance of an insider, I participated in all of the synchronous #chat sessions (n=10) that occurred during the time of my study. A researcher can gain a sense of what members experience by participating online in the
same activities that members do, such as posting comments, responding to others’ comments, and attending synchronous # sessions to name a few (Garcia et al., 2009; Hine, 2008; Kozinets, 2010; López-Rocha, 2010). To illustrate, without fully participating in a synchronous #chat session, it would be difficult to gain an understanding of what it feels like to post responses to the #chat questions in a fast-paced, highly interactive synchronous environment. Simply downloading text, images, and other forms of multimedia posted in an online space may have some value but that action does not capture the full experience of participants’ interactions (see also Garcia et al., 2009; Lankshear & Knobel, 2017). In addition, I was able to experience the type of “just in time” learning that the online spaces for educators literature has purported as valuable to educators. As will be discussed in Chapter 4, my engagement in the space as insider allowed me to experience important events occurring in the world as they unfolded while at the same time observing/experiencing how #sschat participants were responding to such events (e.g., posting resources, making requests). A useful example of a newsworthy event that resulted in multiple Twitter and Facebook posts within the #sschat affinity space during the time of my study was the resignation of Speaker of the House (Boehner on September 25, 2015). This led to an interesting finding in my study concerning how #sschat participants leveraged affordances within Twitter to be able to engage simultaneously with #sschat participants and their students that likely would not have been realized had I simply read transcripts of the Twitter posts (see Chapter 5, Engaging Simultaneously with Students and Participants for more discussion).

I did not use any form of checklist or set of protocols when I engaged in the
#sschat affinity space. Rather, as an insider I engaged in the space in the same way that other participants did (e.g., reading and responding to posts). I captured my observations of participating as an insider by writing about the experiences in the form of field notes at the time when they occurred (e.g., synchronous #chat session, posting a comment) and/or immediately afterwards when more time was needed.

**Field notes.** Assuming the stance of an insider in an online space can be tricky because it requires a need for the researcher to balance two different roles at the same time. The first expectation is to engage in real-time activities online as a way to experience firsthand what other participants in this space are feeling and doing. At the same time, the researcher needs to keep a written account of what is happening (Boellstorff et al., 2012; Merriam, 2009; Merriam & Tisdell, 2015; Yin 2009, 2017). To manage these expectations, I took very brief notes during the time that I was actively engaged in participating in the synchronous #chat sessions and followed-up with more descriptive field notes at the end of the session. As a way to contextualize the data, I annotated my field notes with the date, time, and name of the portal (e.g., weekly #sschat chat vs. regular #sschat feed) as well as included a brief description of what was happening in the space. These field notes were a rich source of data and were particularly helpful during the analysis phase of this study because they captured my experiences as an insider (at the time when they occurred) and provided insights that helped to understand the interactions in ways that had not been captured by other researchers.

**Digital records.** Researchers of online spaces have access to a wide variety of
data posted online by participants (Boellstorff et al., 2012; Garcia et al. 2009; Hine, 2008; Kozinets, 2010; Merriam, 2009; Merriam & Tisdell, 2015; Lankshear & Knobel, 2017; López-Rocha, 2010). For the purpose of this study, I conceive of digital records as the text, images, documents, video clips, and other digital files that were posted to the #sschat affinity space. The digital records that I collected for this present study could be described in three broad categories: (a) Twitter and Facebook posts; (b) information posted on the two (stable) websites associated with the #sschat affinity space and the #worldgeochat Google Doc; and, (c) distributed knowledge that came in the form of participant-created websites and links to other sites. I provide a description of how I managed the collection of each category of digital records next.

As discussed in previous sections, I assumed the stance of an insider because simply downloading chat logs, saving webpages or taking screen shots could not take the place of a researcher actively engaged in the online space because those documents do not capture the feelings that are associated with being a participant or the interactions in which they are a part (Boellstorff et al., 2012; Garcia et al., 2009; Kozinets, 2010; Merriam & Tisdell, 2015). However, downloading the digital records and taking screen shots (discussed later) was useful for three reasons. First, having a copy of what I observed was happening during the synchronous #chat sessions, and to the daily Twitter feeds and Facebook group page associated with the #sschat affinity space was helpful because I was able to review those posts multiple times during the analysis process. Second, it was extremely useful to have access to the synchronous #chat sessions at a later time because it was somewhat difficult to participate in these fast-paced, highly
dynamic sessions and observe what was happening at the same time. It was not always possible to read all the tweets that went by and keep up with the multiple conversations that were occurring simultaneously (for examples of this phenomenon see Chapter 5 Side Conversations). And, third, having screen shots was helpful because some of the websites no longer exist as they appeared during the time of the study.

I used special features within NVivo 10 qualitative data management software to capture Facebook and Twitter posts associated with the #sschat affinity space directly from the respective websites (see Table 3.3 above). In addition to downloading the text from the Facebook and Twitter posts, NVivo 10 also captured the following information that was useful for this study: time and date of the tweet, username, tweet type (tweet, retweet), hashtags used, mentions (@name), profile name, location listed on profile, profile bio, number of tweets, number of followers, number following, location of person tweeting. In total, I captured more than 6,000 tweets from the four #hashtags associated with the #sschat affinity space and 250 Facebook posts during the data collection period from September 17–October 17, 2015. In addition, my son wrote a software script that captured information about the type of device and software (if any) the participant used to post to the Twitter #hashtags associated with this affinity space.

It is worth mentioning that NVivo 10 saved the tweet and Facebook posts as text only. The participants’ photos and other images included in the tweet or Facebook post did not appear in the file that was downloaded. To address this issue, as recommended by Garcia and colleagues (2009), I also captured screen shots as a way to document interactions that I thought had potential to be worth investigating more deeply at a later
time. The acquisition of screen shots was particularly useful as a reminder of what was noticed during the observation period and helped to draw analytic attention to themes (Boellstorff et al., 2012). For example, using features in my internet browser, I bookmarked a tweet that had a photograph of a group of educators from Argentina “learning about impact of Social Media” (see Figure 4.5) when it was posted. Then I used the bookmarked version for coding purposes because it more closely replicated my experience (and likely the experiences of other #sschat participants) rather than the NVivo 10 version which did not include the photograph. In addition, the bookmarked version maintained the hyperlinked features that are traditionally part of a tweet which I found helpful for making sense of the tweet (e.g., username, #hashtags, websites, emoticons, posted photographs). In a similar way, when the #worldgeochat Twitter #chat invitations were posted as individual tweets, I did not realize the clever use of word play that appeared to be a common feature of #worldgeochat invitations. However, when I looked across all the screenshots of the #worldgeochat invitations, the pattern became instantly apparent (see Chapter 5, Attracting Participants for more discussion).

The use of the screen shot technique was particularly useful for the second category of digital records (stable websites associated with #sschat affinity space) because shortly after the data collection period ended (less than one month), the (stable) #sschat.org website was moved to a different hosting service; and, consequently the information on the website, and even the layout and look of it changed significantly. Without the benefit of having the screen shot, I would not have had a “record” of how the sschat.org website appeared during the data collection period of my study. Given that the
#sschat affinity space is constantly changing and any part (portal) may be deleted at any time, having screenshots was a useful way to document what was happening at the time of my study in a highly revisitable way. The collection of screen shots also generated a data set that may be useful for some longitudinal study I might want to engage in the future.

The third category of digital records played a significant role in a broad range of findings that resulted from my study. For instance, as discussed in Chapter 2, one of the features of an affinity space is the understanding that the collective knowledge of the space includes distributed knowledge that comes from participants and the links that they share. As a result, I examined every link that was shared as part of a tweet or Facebook post and made field notes about what I noticed. I used the features in my internet browser to bookmark interesting websites that I thought I might want to revisit at a later time. The participant-created websites (created with social media) are a good example of the type of websites that I bookmarked. These participant-created websites were not coded in the exact same manner as the tweets and Facebook posts but were kept separately with like sources (e.g., all participant-created blogs together), reviewed, and analyzed. This process helped to reveal a pattern of behaviors that indicated that participants were willing to share the type of “craft knowledge” that comes from years of practitioner experiences. Early analysis of these participant-created websites aided in building categories and later some of these websites were used for illustrative purposes in reporting key findings. As another example, an examination of the website links posted by the participants (to their own websites and websites created by other organizations and
individuals) resulted in a finding about three types of resources that were shared in the 
#sschat affinity space (see Chapter 4, Diverse Factors that Influenced Resource Sharing) 
and a finding about how digital technologies were leveraged to bring in “good stuff” 
during the synchronous #chat sessions (see Chapter 5, Cross-pollination of Ideas).

Below is an accounting of the amount of time that was devoted to each phase of 
data collection and analysis processes for this present study (see Table 3.4). As 
mentioned earlier, the actual data collection period ran from September 17, 2015– 
October 17, 2015. Generally speaking, the analysis phase of this study involved multiple 
examinations of the data; and, consequently, took approximately six months. However, 
there were times that it was necessary to return to analyzing the data as findings emerged 
and this is noted in the bottom row of Table 3.4.

<table>
<thead>
<tr>
<th>Month / Year</th>
<th>Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>July–August 2015</td>
<td>Seek IRB approval</td>
</tr>
<tr>
<td>Mid-September–mid-October</td>
<td>Engage in data collection</td>
</tr>
<tr>
<td>October 2015–March 2016</td>
<td>Begin coding and engage in multiple iterations of coding</td>
</tr>
<tr>
<td>April 2016–January 2018</td>
<td>Continue analysis process and write up findings</td>
</tr>
</tbody>
</table>

I began this section by describing the uncertainty that surrounds research
involving online spaces for educators. A brief discussion of the origins of the #sschat affinity space was provided. I identified the various portals associated with the #sschat affinity space that were the focus of this investigation and provided clarity around the use of the term, #sschat, and other specialized language that is integral to this study (e.g., #chat). Finally, a detailed description of each data collection method was shared. In the next section, I discuss my data analysis process.

Data Analysis

As illustrated in Table 3.3 above, the data set for this study that was analyzed consisted of more than 6,000 tweets from four #hashtags (daily Twitter feeds and synchronous #chat sessions) associated with the #sschat affinity spaces (i.e., #engsschat, #hsgovchat, weekly #sschat, #worldgeochat), 250 Facebook posts, two (stable) websites (i.e., sschat.org, hsgovchat.blogspot.com), the #worldgeochat Google Doc. In addition, responses from the online questionnaire and the websites that were shared by participants in Twitter or Facebook posts were analyzed separately and used for illustrative purpose in reporting key findings.

In this section, I discuss the data analysis process that I used in this present study which can be described as “a basic inductive and comparative analysis” process (Merriam & Tisdell, 2015, p. 226). By this I mean that I closely analyzed the data being open to the ideas that emerged while at the same time mindful of concepts related to the affinity space conceptual framework. I constantly compared the data from different sources as a way to continually refine my thinking. Earlier in this chapter, I described how NVivo10 was used to capture the tweets from the four #hashtags and the Facebook posts associated
with the #sschat affinity space. Later in this section, I will explain how NVivo10 was used to manage these data during the analysis process.

As a preliminary step, I reviewed tweets posted on the daily #sschat Twitter feed for the first five days of my study along with one synchronous #hsgovchat session (approximately 500 tweets in all for this phase) as a way to become familiar with the data I collected and gain a sense of how I might proceed in a systematic manner. This initial step of comparing the tweets from the daily #sschat Twitter feed to the tweets posted during the #hsgovchat synchronous #chat sessions resulted in two important insights that affected how I moved forward in the data analysis process. First, this experience led me to start capturing screen shots of interesting tweets (e.g., cleverly designed #chat invitations, see Chapter 5 for discussion). Second, I made the decision to review all the synchronous #chats first because it was likely that emerging patterns would be more obvious given the focus on a singular topic during the #chat sessions.

As a result of this decision, and before moving forward with the analysis process, I exported the tweets for each respective synchronous #chat session to a new Excel file as a way to maintain the integrity of the weekly #chat session experience. I titled the new Excel file with the name of the #hashtag and the date. The creation of this new Excel file served to replicate the one-hour synchronous #chat experiences because the first tweet was the beginning of the #chat session and the last tweet signaled the end of the #chat. I also exported the files with the daily Twitter tweets in a similar manner and named the new Excel file with the appropriate #hashtag, the phrase “daily tweets,” and the respective dates.
I began the actual analysis process by re-reading each of the tweets that were posted during the first #hsgovchat synchronous #chat session that I had reviewed during the preliminary stage and were now captured in an Excel spreadsheet. Within this Excel spreadsheet (and all other spreadsheet files), there was one column that housed all the tweets and one column dedicated to notations I made regarding each tweet in the form of a single word or several words. During each period of time that I reviewed a set of tweets, I wrote down “observer comments” (Merriam & Tisdell, 2015, p. 200) in my field notes as a way to capture more general ideas that I found interesting or possibly important to consider in more general ways regarding my study. I chose the approach of using observer comments because it was more closely aligned to my insider positionality as a researcher than the use of memos which is another approach often used by qualitative researchers where they write down their questions, hunches, and possible hypotheses. These steps reflect the first phase of my coding process which could be described as open coding because I was “open” to what might emerge during my coding process (Merriam, 2009; Merriam & Tisdell, 2015; Saldaña, 2012). I understood that it was important to take sufficient time to become immersed in the data in a deep way; allowing the data to “speak” and potential codes emerge (Boellstorff et al., 2012; Saldaña, 2012).

As I moved along in the analysis process, and as mentioned earlier, I used a constant comparative method, an approach that is commonly used in qualitative studies (Charmaz, 2014; Glaser & Strauss, 1967; Merriam, 2009; Merriam & Tisdell, 2015). In short, this method involves comparing one bit of data with another and paying attention
to the similarities and differences. I continued this process for all the synchronous #chat sessions and then moved on to analyzing the tweets from the daily Twitter #hashtags, and the Facebook post associated with the #sschat affinity space in the same manner as described above. Even though the daily tweets were typically random posts (e.g., “I love this site: Duke's Ad*Access: Ads from 1911 through the 1950s - http://t.co/w7Jjrj0kEq #sschat”), I became more comfortable reviewing them as time went on because I had already begun to see some patterns beginning to form in my analysis of the synchronous #chats. As described previously, part of the process of examining each post involved reviewing every website link that I encountered in a tweet or Facebook post. I used features within my internet browser to bookmark interesting websites and made notes indicating why the website was interesting.

As I moved into the second round of the coding process, I reviewed the notations of single words and short phrases that I used to describe each tweet in all the Excel spreadsheets. I engaged in axial coding by combining the open codes that appeared similar to one another into a single category. I created a name for each of these categories that reflected the patterns that I noticed cut across my data. The names I gave to these categories reflected one or more of the following: (a) my interpretations of the data, (b) words used by the participants, (c) the literature about online spaces for educators, and (d) concepts reflected within the affinity space conceptual framework (Merriam & Tisdell, 2015).

During this second round of coding I imported all the Excel files of tweets (daily Twitter feeds and synchronous #chat sessions) and Facebook posts back into NVivo 10. I
assigned each tweet/Facebook post to a category manually and used NVivo 10 to manage this process of sorting and storing the tweets/Facebook posts into categories as assigned. In this way NVivo10 served as a management tool because it tagged the data with the same category code (that I gave it) allowing it to later be sorted and displayed in the same group as other data that had been tagged similarly. Merriam and Tisdell (2015, p. 222) refer to this process as “code-and-retrieve” where the researcher uses software (NVivo 10 in my study) to label a particular piece of data so it can be retrieved later in a format that includes other similarly labeled data. It is important to note that it is the researcher that does the labeling and not the computer software.

The third round of analysis focused on combining codes into fewer more comprehensive categories (Merriam, 2009; Merriam & Tisdell, 2015, Saldaña, 2012). I created a code registry where I defined each code and provided a representative tweet as an example. This is also when my analysis strategy became more deductive. As I analyzed more data, this was an opportunity to confirm whether the categories I had identified earlier were still appropriate as I analyzed new bits of data. In some cases I realized that that some codes needed further refinement to capture a particular nuanced action. As I neared the end of the data collection phase, my analysis shifted from an inductive stance were ideas were emerging from the data to a place where I was beginning to reach “a sense of saturation” (Merriam & Tisdell, 2015, p. 210) and a more deductive stance where I looked for evidence in support of my categories. Aware of the biases that I brought to this study, I asked three critical friends to review my code registry (see Table 3.5) and examine how I had coded data samples from each of my data sources.
Based on their feedback, I reconsidered several of the category names.

Table 3.4

*Code Examples*

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Tweet Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning to meet up face-to-face</td>
<td>Participant wants to connect face-to-face and learn from @GetSoundsAround in a relaxed setting</td>
<td>Learning styles are so important. I need to have a beer with @GetSoundsAround to find all the ways to teach w/ music! #worldgeochat</td>
</tr>
<tr>
<td>Seeking help</td>
<td>Participant requests #sschat participants share websites they think will help 11th graders explore ideas about global issues</td>
<td>Okay PLN [personal learning network], hit me with sites you'd send Ss [students] (Grade 11) to discover ideas to explore around global issues. news, op-ed, stats, stories...</td>
</tr>
<tr>
<td>Sharing advice</td>
<td>Participant shares advice based on her teaching experience about whether the teacher should provide a list of topics or let students choose their own</td>
<td>Leave it open. The variety of projects has been mind blowing. Often Ss [students] who aren't usually engaged step up and amaze. Best #engsschat</td>
</tr>
<tr>
<td>Showing personal concern</td>
<td>Participant checks in to find out how @GeoPenny is after she had posted a weather map showing bad weather coming her way the previous week</td>
<td>Hi @GeoPenny and @GbhillNtx How did you pull through the storm Penny? #worldgeochat</td>
</tr>
<tr>
<td>Showing support</td>
<td>Co-moderator provides positive feedback to a participant after his first time as a #chat facilitator</td>
<td>Two claps for my good friend @ecasey77 - great chat tonight!!#worldgeochat</td>
</tr>
<tr>
<td>Trying idea</td>
<td>Participant posts that she will use a humorous West Wing video clip to show how maps can portray bias (distorted image)</td>
<td>Well I'm definitely showing this tomorrow !! #worldgeochat <a href="https://t.co/wnjdF7Hzf">https://t.co/wnjdF7Hzf</a></td>
</tr>
</tbody>
</table>

Through this process of review and reflection, new codes emerged and some less common ones were collapsed and combined. It was during this phase that confusion about some data and contradictions may become apparent. Boellstorff and colleagues (2012) report that this is a common occurrence and may lead to deeper understandings of a complex issue or new insights. It is crucial that the researcher has an open mind not
only during the data analysis stage but throughout the process in order to consider alternate explanations or contrary evidence (Cohen, Manion, & Morrison, 2011; Merriam, 2009; Merriam & Tisdell, 2015; Saldaña, 2012; Tellis, 1997; Yin, 2009, 2017).

An example of how my thinking shifted during the analysis process is as follows. Originally, I coded all posts in which participants asked for some type of assistance as a “request.” This code seemed appropriate given it reflected a common finding among studies of online spaces for educators and was in line with Gee’s (2005) conceptual framework of affinity spaces. As part of the cyclical process of reviewing all the codes and reflecting upon how I had defined particular codes, I realized that there were real differences in the types of requests that participants made and found it necessary to go back into my data and closely examine what was happening at the time of the request and identify the exact need that prompted the request. As a result, it became evident that there were, in fact, three categories of requests with respect to participants’ desire to gain access to: (a) specific curricular resources, (b) participants willing to interact with their students, and (c) other participants’ weak ties (see Chapter 4 for more discussion).

As I moved into the fourth round of the analysis phase where I prepared to move from categories to themes, I kept Gee’s conceptual framework and the key elements of affinity spaces that I was using as an analytical lens in mind (see Chapter 2, Applying Gee’s conceptual framework to online spaces for educators). I brought my categories to members of my doctoral study group for their consideration. Their feedback resulted in a need for further analysis of my data and refinement of my categories. Eventually three key themes emerged: (a) participants’ diverse experiences, (b) fostering a participatory
environment, and, (c) personal and professional social interactions. Throughout the data analysis process, I was aware of the bias and assumptions that I brought to this study. It was for this reason that I frequently sought input of knowledgeable others (in regard to data analysis process) who could likely provide an objective perspective with respect to how I assigned codes, established categories, and identified themes. I now turn to discuss areas of trustworthiness, ethical issues, and positionality.

**Trustworthiness**

In qualitative studies, the goal is not to provide a solitary truth but rather the researcher is interested in providing findings that reflect reality (Merriam, 2009; Merriam & Tisdell, 2015). To promote a sense of trustworthiness, I used triangulation of data sources and a transparent accounting of the decision making process during the data collection and analysis steps of my study. Data triangulation involves using multiple data sources to provide insight and clarify meaning (Merriam, 2009; Merriam & Tisdell, 2015; Stake, 1995, 2013; Yin, 2009, 2017). In this study, multiple sources of data were collected including observations, digital records (Twitter and Facebook posts, #sschat websites, participants’ websites), questionnaire responses, and field notes. Insights from my experiences engaging as an insider in #sschat were captured in my field notes and further documented by examples from the digital records. Boellstorff and colleagues (2012) indicate that a comparison of multiple data sources allow researchers to “compare what people do with what they say about what they do” (p. 170).

To promote a sense of trustworthiness, researchers are transparent about their data collection and analysis processes and provide information about how they make decisions
throughout the entire experience (Freeman, de Marrais, Preissle, Roulston, & St. Pierre, 2007; Garcia et al., 2009; Kozinets, 2010; Lankshear & Knobel, 2017; Merriam, 2009; Merriam & Tisdell, 2015; Prior & Mitchell, 2012; Saldaña, 2012; Stake, 1995, 2013; Yin, 2009, 2017). I created an audit trail by documenting how data was collected, carefully recording the steps involved in the data analysis process, and explaining the decisions made throughout the entire study. Yin (2009, 2017) speaks of this action as developing a “chain of evidence.” Providing a well-developed chain of evidence increases the trustworthiness of the study because it allows the reader or an external observer to review the researcher’s entire process (Merriam & Tisdell, 2015; Stake, 1995, 2013; Yin, 2009, 2017). This is particularly useful when a researcher seeks to replicate a study in a different setting—a beneficial way to contribute to the knowledge base of a field of study (Merriam & Tisdell, 2015; Stake, 1995, 2013; Yin, 2009, 2017).

Generalizability of a qualitative study refers to the transferability of the claims, not to predictability. Given that a case study typical involves a small sample, it would not be appropriate to apply the findings to another similar population, regardless of its size. The goal then is for the researcher to design her study such that a reader can, to some extent, transfer the findings to similar situations (Merriam, 2009; Merriam & Tisdell, 2015). In the case of my investigation, the intent is to draw upon what can be learned from online spaces for educators, such as #sschat, as a way to help inform and shape more formal professional learning experiences. Thus, it would not be a direct transfer from one experience to another but rather a teacher educator—such as someone at the state department of education—might take into consideration the findings from this
study (along with the professional development literature) when contemplating the design of more formal professional learning experiences.

**Ethical Issues**

As with any qualitative study, I received approval from the Institutional Review Board (IRB) to conduct research on human subjects. However, because my investigation involves an examination of a public online space—and is still an evolving field of study—there were some unique considerations. I reviewed multiple published studies and dissertations (Booth, 2012; Casey, 2013; Davis, 2012; Fucoloro, 2012; Hines, 2014) involving online networks and sought guidance from researchers with perceived expertise in the field and the Association of Internet Researchers as a way to gain understanding of how ethical guidelines have been applied to studies similar to mine.

Ethical decisions involving internet studies are best made on a case by case basis (Markham & Buchanan, 2012). A researcher has an obligation to protect the community from any risk or harm. At the core is the need to balance the rights of the subjects with the benefits of the research. According to the Belmont Report (1979), when “the object of the inquiry is the behavior of organizations or collectivities” (p. 492) then consent provided by representatives of the organization may be sufficient. I contacted the current co-leaders of #sschat and discussed my desire to study the #sschat space via email and in person. They were in agreement and identified one person (D. Krutka) to be my point of contact. Krutka is an associate professor at Texas Women’s University and has published several articles regarding the use of social media by higher education faculty, K-12 teachers, and students in peer-reviewed journals. He was fully supportive of my study
In designing a study of a public space on the internet, a researcher will be faced with making decisions involving ethical considerations throughout the research process; everything from data collection to data storage to the use of quotations in published articles. A key question that guides a researcher in making ethical decisions regarding her study is whether the collection of data posted online can pose some type of psychological, economic, or physical harm to any of the participants (Markham & Buchanan, 2012). As previously mentioned, I collected data from online postings, an online questionnaire, and field notes. Given that there are different types of interactions happening during each of the data collection processes, there is a need to apply different ethical guidelines. I have already described how I received permission from the co-leaders to study #sschat. A discussion of some of the ethical considerations involving the online postings and my field notes is provided next. Then I explain how I addressed the issue of informed consent with the participants who volunteered to complete the online questionnaire. Finally, I describe how I ensured the safe handling of the data that I collected.

The terms of service for all of the platforms associated with #sschat (e.g., Twitter, Facebook, Wix) clearly state that everything that is posted is public. Anyone can view what is posted in #sschat or its archives (no registration or log-in is required). There has been much discussion among researchers as to whether informed consent is needed in
online platforms where posts can be publicly viewed. In the case of my study of #sschat, there was no expectation of privacy in these online spaces; therefore the majority of researchers agree that it is not necessary to get consent to view or collect data that is posted online in the public spaces (Belmont Report, 1979; Kozinets, 2010; Markham & Buchanan, 2012). Further, #sschat does not deal with sensitive subjects (e.g., drug use, support groups, children), thus, the level of risk is low (Kozinets, 2010; Markham & Buchanan, 2012). To avoid participants feeling resentment from being studied (Roberts, 2015) and to promote a sense of transparency, I regularly announced that I was a doctoral student researching #sschat for my dissertation.

As mentioned earlier, I tweeted requests and a #sschat co-leader posted requests on Facebook asking #sschat participants to complete an online questionnaire and informed them that their participation was voluntary. To promote a sense of transparency and confidence, I also created a website where participants could read about me and my research interests. Participants were advised that completion of the questionnaire implied consent to participate in the study. Responses were collected anonymously. I kept all the data that were gathered as part of this study (e.g., field notes, digital records, responses) on a password protected computer.

Markham and Buchanan (2012) recommend that a researcher seeks the advice of other researchers that have experience in this type of research or consult published articles when faced with a challenging issue. The Association of Internet Researchers has requested that researchers report any unique challenges as a way to document new ethical issues that arise and have made this database available to the public (Markham &
Buchanan, 2012). Fortunately, no ethical issues arose during the course of my study that needed to be addressed.

**Positionality**

As someone who has frequented online spaces for educators in the past, I consider the “insider” knowledge that I bring to this study beneficial (Hine, 2008). Yin (2009, 2017) stresses the importance of the researcher being knowledgeable of the phenomenon at the start of the study. Without sufficient understanding, it is possible that the investigator might not recognize behaviors or actions that are significant or realize important insights. Villenas (1996) suggests that as an insider, the researcher may feel a unique connection to a particular community as a result of a shared culture. And, for that reason, I was well positioned to interrogate aspects of #sschat that might remain invisible to other researchers. For example, my role as social studies coordinator at a state department of education affords me familiarity with current trends in social studies education and a familiarity with individuals who would be perceived as having expertise in the field of teaching and learning.

While this insider perspective may have some benefits, Merriam (2009) cautions that, “the researcher is the primary instrument of data collection and analysis” (p. 52). For example, the biases and assumptions that I brought to the experience likely influenced what I chose to observe and the data I collected. I used my field notes as a way to interrogate my thinking and to make my decision making process visible to the reader as a way to promote a sense of transparency (Luttrell, 2010; Merriam, 2009; Merriam & Tisdell, 2015; Ortlipp, 2008).
For some researchers, engaging in a study involving an online space for educators that uses so many different technology tools across several different online spaces may seem overwhelming. Leask and Younie (2001) caution that “teachers do not come to computer technology in emotionally neutral ways” (p. 226). This warning might reflect the thinking that was more common a decade ago when the pre-requisite to be technology literate might have been seen as an obstacle to engaging in online experiences for some people. I am comfortable with the affordances provided by digital technologies and am fascinated by the way people have adapted social media for professional purposes. Nonetheless, a researcher needs a certain level of understanding about how social media works as well as familiarity with the unique language and practices (e.g., RT, @) in order to appreciate what is happening in these spaces (Hine, 2008).

To be certain, I brought assumptions about how digital technologies might be used to facilitate conversations regarding instructional practice, student learning, and other topics of professional interest among educators with different experiences, levels of expertise, and from geographically dispersed areas. In her study about the Latino community in a rural town in North Carolina, Villenas (1996) had to confront the unique sense of privilege that she had as a Chicana ethnographer. While my research does not involve a group of marginalized people, I thought it was equally important for me to consider what beliefs I held with regard to technology and learning as they could influence the data I chose to notice and those that I ignored or omitted. In this study, I saw myself as both an insider and outsider. I considered myself as an insider because I feel connected to this group of people who took responsibility for their own learning, the
digital technologies that comprised #sschat, and the practices inherent in the affinity space. And, because I had been a lurker on #sschat and had yet to engage in posting or interacting with any participants in this online environment (until this study began), I was an outsider.

In this chapter, I provided a thorough description of how I came to select the setting of my study. As an investigation of an online environment, it was necessary for me to consider the type of adaptions I could make to traditional research methods while maintaining a commitment to a study based on rigorous standards. I described how a basic qualitative study was best suited for my study. Data was gathered from three sources: digital records, an online questionnaire, and field notes (from my observations). I provided a detailed explanation of my analysis process that involved open coding, the creation of categories, and finally the emergence of themes that came as a result of engaging in continual analysis and reflection along with helpful feedback from critical friends. Gee’s conceptual framework of affinity spaces and the literature discussed in Chapter 2 aided in the analysis process. I explained how my actions promoted a sense of trustworthiness and the decisions I made with regard to ethical issues. Finally, my insider status in the world of online spaces provided unique insights as a researcher and was important information for the reader to know in advance. In the next chapter, I present the first of three chapters of findings.
CHAPTER 4 DIVERSITY: PARTICIPANTS AND PARTICIPATION

Introduction

This chapter and the following two chapters, report on findings that emerged from my deep and thorough analysis of the data collected during this study of the #sschat affinity space. This chapter focuses on the diverse experiences that participants brought to #sschat resulting from their varied roles in a wide range of educational institutions. Chapter 5 focusses on how participants leveraged digital technologies and their affordances to support a variety of interactions involving topics associated with social studies education. Chapter 6 focusses on the social interactions that occurred in #sschat that were of a personal and professional nature. As a reminder, the data drawn on in these chapters is taken from what I refer to as the #sschat affinity space comprising of Twitter posts from the daily feeds and synchronous #chats of four hashtag spaces (i.e., #engsschat, #hsgovchat, weekly #sschat, #worldgeochat), Facebook posts, the two stable websites and the #worldgeochat Google Doc associated with this space collected over a one month period in 2015.

As mentioned previously in Chapter 3, the mission of #sschat is “to discuss and reflect on the teaching of the discipline [i.e., social studies] …in order to improve delivery of instruction to our students” (retrieved from https://sschat.org/about-us). Indeed, the focus of the Twitter and Facebook posts in what I am calling the #sschat affinity space almost always relate in some way to something that would be useful to someone involved with social studies education; however, what can be learned from this space is less about social studies instruction and much more about what happens when a
group of people with diverse experiences connect and interact in a technology-mediated environment regarding their shared interests in teaching and student learning.

Research has shown that participants engage in online spaces for educators for a variety of reasons, including connecting with other educators, engaging in discussions, making and responding to requests, and sharing and accessing resources (Biddolph & Curwood, 2016; Blitz, 2013; Booth, 2012; Byington, 2011; Carpenter & Krutka, 2014; Duncan-Howell, 2010; El-Hani & Greca, 2013; Forte et al., 2012; Hargadon, 2010; Hart & Steinbrecher, 2014; Herbert, 2012; Holmes, Preston, Shaw, & Buchanan, 2013; Hur & Brush, 2009; Krutka, 2017; Krutka & Carpenter, 2016; Pino-Silva & Mayora, 2010; Ranieri, Manca, & Fini, 2012; Rodesiler, 2014; Rodesiler et al., 2014; Sari & Tedjasaputra, 2012; Schlager et al., 2009; Seo 2013; Visser et al., 2014; Wesely, 2013). My study supports these findings; however, it would be a mistake to think of these interactions as simplistic exchanges of information. Survey responses from other studies have captured how each respondent viewed his/her experience from his/her perspective without considering all the factors that influenced what was happening in #sschat. These factors include opportunities for reflective thinking, building on the ideas of others, and role-shifting (which will be discussed in Chapter 6). Given that the research question that guides this study asks what can be learned from online spaces for educators, such as #sschat, for the purpose of informing and shaping more formal professional development experiences, a close examination of the factors that seemed to significantly or, even noticeably, influence these interactions was warranted. For my purposes here, interaction is best understood as engaging with other #sschat participants.
(or the affinity space, in general) through posting comments, resources, etc. for the purpose of sharing ideas or responding to requests. In a closely related way, interplay refers to interactions that appear to be intended to or may influence the actions of others within the #sschat affinity space. Because they are so closely related, they may be used interchangeably in my discussions.

I found it necessary to “unpack” the patterns of interactions found in my data from multiple perspectives to make sense of what was happening and to reveal the factors that really seemed to influence critical interplay among participants. Therefore, in this chapter, I present findings that reflect how the participants’ diverse experiences seemed to affect the interactions demonstrated within the #sschat affinity space. In Chapter 5, I share findings that address how digital technologies and their affordances provided the infrastructure that supported a wide range of synchronous and asynchronous interactions among participants in #sschat. And, finally, in Chapter 6, I discuss findings related to the factors that contributed to the participants’ meaning-making during the synchronous discussions. It is important to note that although I discuss these three components of this particular affinity space separately, it is the interplay among them that resulted in a space conducive to participating, contributing, and learning—this important point is revisited in Chapter 7. Within each of the next three chapters, I draw on the wider academic literature in interpreting my findings.

In Chapter 4, I consider how diversity contributed to a space that was not only potentially able to address the varied needs of its participants (e.g., responding to requests, providing resources) but also facilitated an environment in which new ways of
thinking and innovative ideas were shared. I begin by examining the requests that participants made in order to better understand the type of assistance participants were seeking. Requests appeared to come in the form of tweets posted by participants who indicated they were seeking a particular type of resource. Next I consider the various factors that contributed to the different experiences participants seemed to bring to the #sschat and how these factors may have affected the interactions that occurred within the affinity space. I also explore the type of contributions participants made that were not in response to specific requests. Finally, I use Gee’s conceptual framework and other relevant literature as a way to consider how access to participants with diverse experiences is valuable to educators who themselves have a wide range of backgrounds and teacher students with their own individual needs and interests.

**Diverse Requests**

Looking holistically at the daily Twitter #hashtags and Facebook page posts associated with the #sschat affinity space over the full month in which data were collected revealed that, collectively, #sschat participants demonstrated a wide range of interests and needs. This was unexpected because the literature regarding online spaces for educators does not account for the wide diversity of requests or the uniqueness of the assistance sought. A close examination of the data revealed there were three types of requests made during the asynchronous Twitter and Facebook interactions related to: (a) obtaining access to specific curricular resources, (b) interacting with their students, and, (c) leveraging weak ties.
Access to Specific Curricular Resources

In a study of 755 K-16 educators, survey data revealed that 96% of the respondents found Twitter to be useful for resource sharing and acquiring resources (Carpenter & Krutka, 2014). Articles, blogs, and ideas for lesson planning were cited as the type of resources that respondents appreciated having access to but little information was provided by the researchers regarding the type of resources requested by respondents or why they were needed. Data from my study provided evidence that the participants’ requests for resources were very nuanced. Table 4.1 provides a representative selection of the kinds of requests posted to Twitter asynchronously. This table also includes interpretations of what the need was most likely to be behind these requests based on the wording used by posters.
Table 4.1
Participants’ Requests for Resources

<table>
<thead>
<tr>
<th>Tweet</th>
<th>Particular Need</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any Ts [teachers] out there have good resources for teaching Ss about the European Union? #sschat #sstlp</td>
<td>Resources to teach about a specific topic</td>
</tr>
<tr>
<td>Looking for short video clips (2-5min) highlighting American decades. 30's specifically. #SSchat #edchat</td>
<td>Media-based resource regarding specific topic</td>
</tr>
<tr>
<td>Does anyone know where I can find stats on corporate consolidation? Big corp. now vs. Gilded Age? #sschat</td>
<td>Statistics to compare past historical time period to present day</td>
</tr>
<tr>
<td>Anyone that uses American Pageant for APUSH...about what chapter are you on at this point of the year? #APUSHchat #APUSH #sschat</td>
<td>Check in regarding scope and sequence</td>
</tr>
<tr>
<td>Do any 8th grade US Hist teachers teach Johnny Tremain at all. Looking for ideas. #sschat #sstlap</td>
<td>Ideas to teach a historical fiction book</td>
</tr>
<tr>
<td>Looking to change my plans tomorrow to include the Pope's visit to the US/Americas. Ideas welcomed #worldgeochat #sschat</td>
<td>Ideas to address a specific current event</td>
</tr>
<tr>
<td>What resources &amp; strategies would help a T concerned with &quot;coverage&quot; in #APUSH but wanting to shift from lecture? #sschat #ctinquiryk12</td>
<td>Shift in instructional approach</td>
</tr>
<tr>
<td>Any #hsgovchat folks use a simulation where students build a government system? <a href="https://t.co/Mj9h7eu1Zq">https://t.co/Mj9h7eu1Zq</a></td>
<td>Experiential learning experience for students</td>
</tr>
<tr>
<td>looking to enhance SS methods course through Arts Integration - anyone have any ideas, courses, examples, and more? #sschat #artsed</td>
<td>Alternate pedagogical approach</td>
</tr>
<tr>
<td>Looking for a really awesome 8th gr Sons of Liberty project idea. Mine is feeling stale. We're 1:1 so tech is a plus! #sstlap #sschat #ssela</td>
<td>Change “stale” student learning experience to something that incorporates technology</td>
</tr>
<tr>
<td>Hey #sschat need help! looking for FREE leveled readings that do not cut out content to lower the reading level. any resource tips?</td>
<td>Leveled readers that provide access to same content</td>
</tr>
<tr>
<td>Designing diff tasks 4 Ss 2 demo learning &amp; gener/universal rubrics. Any 1 have rub. I could adapt? #sschat #differentiation #rubrics [student needs]</td>
<td>Rubric that can be adapted to different tasks</td>
</tr>
<tr>
<td>Is anyone aware of a free map review website that you can customize the countries that appear in the map quizzes?</td>
<td>Customizable map site</td>
</tr>
</tbody>
</table>
As demonstrated in Table 4.1, the requests for resources were very diverse and specific to the participants’ roles in their educational institutions and their needs. For example, one participant—likely a teacher—requested a specific type of media source (e.g., “Looking for short video clips (2-5min)”) that addressed a specific time period (“American decades. 30's specifically”). I found most requests in my data set that dealt with curricular resources could be categorized in three broad ways concerning: 1) specific content; 2) differentiated learning needs; and, 3) curricular approaches. As will be discussed in this section, some participants seemed to know exactly what they were looking for and requested a specific resource; others seemed to be looking for ideas from participants who might have relevant teaching experience.

**Specific content.** It was interesting that participants seemed to request very specific resources that they likely used to change what they had done in the past to make the learning experience more relevant for students or more interesting to teach. For instance, one participant asked for a specific type of media resource (e.g., “short video clips (2-5min) highlighting American decades. 30's specifically”). Another participant sought resources to make real world connections to historical content that they taught (e.g., “find stats on corporate consolidation? Big corp. now vs. Gilded Age?,”). A third asked for “good resources for teaching Ss [students] about the European Union?.” These types of requests suggest that educators were interested in designing learning experiences
that were meaningful to their students such as making some kind of connection between lesson content and the world outside the classroom and they did not seem to have access to the types of resources they needed for doing so in their schools. Therefore, it may be beneficial for educators to connect with others outside of their schools who teach similar subjects because they may have access and the ability to share resources that they need.

While not a request for a resource per se but certainly curriculum resource related, participants were also interested in learning from other participants who were using the same resources. For instance, one participant had questions about timing for other APUSH teachers using American Pageant textbook (e.g., “what chapter are you on at this point of the year?”). Another was interested in hearing ideas from “8th grade US Hist teachers [who] teach Johnny Tremain [a novel].” It is possible that these participants were the only teacher in their school that taught a particular course and would benefit from having access to advice and ideas from teachers in other districts / states\textsuperscript{11} / countries who used the same instructional resources.

**Differentiated learning needs.** Many of the requests made about curriculum resources suggest that #sschat participants were interested in designing differentiated learning experiences to meet specific needs based on their unique students. For example, one participant was looking for “for FREE leveled readings.” This type of request indicated that the participant had a need for resources that would support students who struggle with reading while enabling them to meet the same expectations defined for all students (e.g., “that do not cut out content to lower the reading level”). In a similar way,
another was looking for a generic rubric that could be adapted to reflect expectations from different learning tasks he was designing (e.g., “Designing diff tasks 4 Ss 2 demo learning & gener/universal rubrics”). These two examples provided evidence that #sschat participants were interested in differentiating the learning experiences they designed based on their students’ individual needs and likely did not have the resources they needed in their own district.

A close analysis of who was making requests strongly suggests that educators were not the only people who found the #sschat affinity space useful for obtaining resources. By way of example, a content provider also appeared to seek assistance from #sschat participants. A content provider refers to a government agency, non-profit organization, and/or for-profit business that participated in the #sschat affinity during the time of my study. My data set showed that content providers that participated in the #sschat affinity space primarily provided resources in support of social studies education (see Chapter 5, Portraying Professional Selves for examples of content providers). Typically, content providers share their resources with educators in schools. In one case, the requestor was looking for input from educators who might know of “age-appropriate [news] sites for #students” that they might include on their commercial site called, “Newsjunkies.” This was interesting for three reasons. First, by requesting “age-appropriate” resources, it suggests that some news sources might not be suitable for some children based on their age (e.g., young elementary children). Second, it acknowledged that educators have valuable resource-oriented knowhow based on their experiences teaching. Third, it provided an example of how it may be useful to design spaces where
educators and content providers can work together to design resources for student learning.

**Curricular approach.** There were also requests concerning curriculum resources that indicated participants were interested in making shifts in their instructional approaches. For instance, one participant appeared to be interested in moving away from a teacher-centered classroom (e.g., “What resources & strategies would help a T[eacher] concerned with "coverage" in #APUSH [Advanced Placement United States History] but wanting to shift from lecture?”). The inclusion of “#ctinquiryk12 [Connecticut]” in his tweet provided evidence that he was likely interested in moving to a more student-centered approach since he also targeted Connecticut educators who followed a hashtag focused on using inquiry to promote student learning. Another was looking to engage his students in a type of experiential learning experience (e.g., “Any #hsgovchat folks use a simulation where students build a government system? [link](https://t.co/Mg9h7eu1Zq)”). A teacher educator was looking to promote new pedagogical approaches to the pre-service teachers he taught (e.g., “enhance SS methods course through Arts Integration”). One participant posted that he was looking for something new because his “8th gr Sons of Liberty project” was “feeling stale.” These requests were interesting because they suggested that #sschat participants wanted to make shifts in their instructional approaches and sought assistance from others who had already made such changes or who were doing things “differently.” These requests were action-oriented and targeted based on their specific teaching responsibilities.

In general, the requests participants made during the month long period of this
study had a high degree of specificity. Finding the “right” people able to fulfill so many diverse requests would likely be difficult in a single school or district. Thus, having access to a large number of educators with a wide range of teaching experiences was likely to beneficial to educators who were interested in making changes to their instructional practices. A close analysis of the data strongly suggested that participants appeared to want to obtain resources that they could use to make small, manageable shifts in the learning experiences that they designed for their students. In schools—particularly rural schools—where there is only one teacher of a particular course (e.g., advanced course); this individual does not have the opportunity to collaborate with others who have similar teaching responsibilities with respect to curriculum implementation, scope and sequence of content and knowledge, and so forth. In contrast, the data showed that #sschat provided participants with the wherewithal to seek help (e.g., resources, implementation ideas) from other participants who had experience teaching similar subjects or grades or who had ideas to offer with respect to a stated need or desire. Overall, #sschat participants made requests that reflected an interest to leverage resources beyond the textbook, make historical content relevant, and make changes in the learning experiences they designed to promote differentiated learning. The data collected for this study does not address why the participants turned to the affinity space for help rather than the colleagues they worked with on a daily basis. However, it is reasonable to assume that factors such as a lack of time for collegial discussions as well as access to educators with highly specialized knowledge or experiences or to a safe environment all contributed to the wide range of requests that were posted on #sschat.
Interact with Their Students

I was surprised to find that the type of requests participants made went beyond seeking recommendations for websites or gaining access to curricular resources as had been reported in the literature (Blitz, 2013; Booth, 2012; Byington, 2011; Carpenter & Krutka, 2014; Duncan-Howell, 2010; Schlager et al., 2009; Seo, 2013; Visser et al., 2014; Wesely, 2013). The data from my study indicated that participants were interested in finding other participants (or students) who were willing to connect with their students based on specific needs related to unique learning experiences they had created. For example, one participant was looking for other 5th grade classes to participate in a discussion (e.g., “slow Twitter chat”) regarding United States History during the time period from “Colonies to a Constitution” (see Table 4.2 below). In this case, the experience was designed for students from different places in the United States to share what they were learning about a specific time period in history as well as consider how their locations influenced the type of resources that were available to the colonists. By way of an example, an examination of the questions from the Twitter #chat site showed that the students were asked questions that related to where they lived and their personal preferences, such as what would be on their colonial lunch menu or what occupation they preferred. In this situation, students were expected to apply what they knew about the resources available in their geographic region to determine their choices and make selections based on their preferences. By asking the same questions that were dependent upon a student’s geographic location to students across the United States, there appeared to be a real purpose for students to compare and contrast the results. In a similar way,
providing an authentic audience who had an interest in what they were learning gave the students a reason to share what they knew about colonial times.

Table 4.2

*Participants’ Requests for Authentic Feedback from Peers*

<table>
<thead>
<tr>
<th>Target Audience</th>
<th>#Hashtags</th>
<th>Tweet</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>5th grade students</td>
<td>#sschat #5thchat</td>
<td>Please RT - Interested in joining our 5th Grade Slow Twitter Chat? Register <a href="http://t.co/7igaJlgkf">http://t.co/7igaJlgkf</a> #sschat #5thchat <a href="http://t.co/IY7OG07hsk">http://t.co/IY7OG07hsk</a></td>
<td>Peers from different schools sharing what they know about a specific topic with a real world audience</td>
</tr>
<tr>
<td>Not specified (anyone)</td>
<td>#comments4kids #njed #sschat #flipclass</td>
<td>#20time Week 2 is closing &amp; students could really use some #comments4kids-Please help? <a href="http://t.co/sPsBhb8PsF">http://t.co/sPsBhb8PsF</a> #njed #sschat #flipclass</td>
<td>Real world audience to provide feedback</td>
</tr>
<tr>
<td>HS English classes</td>
<td>@SchoenTellOHS #SchoenTell #engsschat</td>
<td>Any HS English classes looking to connect? If so, follow my English 10 class and let me know @SchoenTellOHS #SchoenTell #engsschat</td>
<td>Peer feedback from others also engaged in #geniushour projects</td>
</tr>
</tbody>
</table>

Similar to the invitation for the 5th grade slow Twitter chat described above, participants also sought to provide a real world audience for their students who were journaling about their research projects in “#20time." For instance, one participant posted a tweet asking for help in the form of #sschat participants who would provide feedback to his students (e.g., “Week 2 is closing & students could really use some #comments4kids-Please help? [http://t.co/sPsBhb8PsF](http://t.co/sPsBhb8PsF”). It is reasonable to assume that these participants were trying to create an authentic purpose for their students to write about what was happening during their inquiry experiences.

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12 20% time, genius hour, and passion projects all refer to student-driven inquiry projects.
**Leverage Weak Ties**

In addition to gaining access to ideas and websites, a close analysis of the data strongly suggests that participants appeared to find the #sschat affinity space valuable because of the ability to connect to #sschat participants’ networks (people outside of the affinity space) to gain access to useful information. In Chapter 2, I discussed the notion of “weak ties” and how individuals benefitted from the connections they had through their networks (e.g., friends of friends). As illustrated in Table 4.3 below, the first three tweets did not directly ask participants if they could supply an answer. Instead, the requests came in the form of a request for an introduction to someone with specific characteristics (e.g., “Ok tweeps-who can put me in touch with…”) or as a recommendation or self-nomination for a guest speaker willing to skype in to her 7th grade world geography class (e.g., “Looking for #skype #guestspeakers for #7thgrade #worldgeo class!”). In some cases, the tweet poster/tweeter can be described as acting as a weak tie in trying to fulfill a request from someone they know in person and other “unknowns” in their network by reaching out to see if any #sschat participants had the information or could provide the service that was needed (e.g., “Can anyone help my #AHSSoc_St friend?”). These data strongly suggest participants likely viewed other participants who engaged in this #sschat affinity space as valuable because they could make connections to others who had specific knowledge or experiences for which they were looking.
In each of the scenarios mapped out in the examples provided in Table 4.3 above, #sschat participants served as conduits through which the original request was passed on to a new network of people (i.e., weak ties) for a possible resolution. Further, the inclusion of “please RT [retweet]” in two posts (see Tables 4.2 and 4.3) suggests that participants were hoping to take advantage of #sschat participants’ wide networks as a way to move beyond #sschat and increase the odds that someone who met the specific criteria would respond. Having access to other knowledgeable and/or connected educators can be useful for educators working in urban and rural areas who often do not

Table 4.3

Participants’ Attempts to Leverage Weak Ties

<table>
<thead>
<tr>
<th>Tweet</th>
<th>Target Audience</th>
<th>Weak Tie Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ok tweeps-who can put me in touch with @Schoology power users who are Economics or government teachers? Anyone? #gafesummit #edtech #SSCHAT</td>
<td>Economics or government teachers and @Schoology power users</td>
<td>Expertise with learning management system</td>
</tr>
<tr>
<td>Looking for #skype #guestspeakers for #7thgrade #worldgeo class! Any suggestions or recommendations would be greatly appreciated! #sschat</td>
<td>#skype #guestspeakers for #7thgrade #worldgeo class</td>
<td>Connect 7th grade world geography class with guest speaker virtually</td>
</tr>
<tr>
<td>Looking to connect with middle school teachers. Do you have any suggestions? #sschat</td>
<td>Middle school teachers</td>
<td>Connect with other teachers who teach the same grade span</td>
</tr>
<tr>
<td>Can anyone help my #AHSSoc_St friend? Please RT #sschat #hsgovchat @mseideman #edchat #sstlap [link]</td>
<td>Anyone using Twitter (“Please RT”)</td>
<td>Access to comprehensive online political spectrum test with a corresponding lesson for HS Ss”</td>
</tr>
<tr>
<td>#T2T community, let’s help @doodlinmunkyboy out! @Sara24lynn @CHitch94 @JoAnnJacobs68 #sschat #socialstudies [link]</td>
<td>Anyone who knows sites where 11 grade students can explore global issues</td>
<td>To provide students with a plethora of global sites (e.g., “I want them to swim in ideas before choosing a focus!”)</td>
</tr>
</tbody>
</table>
have access to sufficient resources or experienced educators who teach similar subjects (Cochran-Smith, 2010; Darling-Hammond, 2015, USED, 2010, 2017).

In sum, the data from my study regarding curriculum resources revealed that #sschat participants made a wide range of requests that were very specific. Given the diverse nature of these requests, it is easy to argue that having access to a global network of educators can be advantageous to address the expansive needs and interests of today’s educators. Unpacking these requests was helpful because it revealed that some participants were looking for specific resources that can enhance the learning experiences that they were designing. Others were looking to receive guidance from educators who had unique teaching experiences and were willing to share their practitioners’ knowledge. In some cases, participants were looking to connect their students to other individuals who would serve as a real world audience as a way to provide a more authentic learning experience. And, finally, some participants were hoping to gain access to people with unique characteristics or specific information by taking advantage of #sschat participants’ networks (i.e., weak ties). What was interesting about these requests is that they were best addressed by practitioners with actual teaching experiences rather than the type of outside “experts” that are typically brought in to conduct school/district-based professional development.

**Participants’ Diverse Experiences**

My study did not capture the type of data that can be used to create a rich profile of the #sschat participants as a group or even individually. This wasn’t my intention. That being said, data captured from their Twitter profiles and posts on Twitter and
Facebook revealed #sschat participants’ experiences seemed to be very diverse and examples of such diversity will be the focus of this section. Previous studies have found that educators appreciate being exposed to diverse perspectives (Blitz, 2013; Booth, 2012; Byington, 2011; Carpenter & Krutka, 2014; Duncan-Howell, 2010; El-Hani & Greca, 2013; Forte et al., 2012; Hargadon, 2010; Hart & Steinbrecher, 2014; Herbert, 2012; Holmes et al., 2013; Hur & Brush, 2009; Krutka, 2017; Krutka & Carpenter, 2015; Schlager et al., 2009; Seo 2013; Visser, et al., 2014; Wesely, 2013). However, there is little information about the factors that are likely influence these diverse perspectives and the potential advantages of being exposed to different ways of thinking. An analysis of the data strongly suggests that three factors contributed to the diverse experiences that #sschat participants brought to the affinity space. In this section, I consider how the participants’ geographic location, educational role and setting, and use of digital technologies appeared to influence what happened in #sschat.

**Geographically Dispersed**

In contrast to traditional school or district professional development experiences which tend to be highly localized events, the data revealed that #sschat participants regularly interacted with people who lived in different states in the United States and countries in the world. Figure 4.1 reflects the locations of people who posted tweets using the “#sschat” hashtag during just one week of this study. As illustrated in the map, the majority of participants came from the United States; although there were participants that lived in other countries, as well. Participants using the #sschat hashtag represented the most geographically dispersed group within this affinity space; however, maps
created from tweets using #engsschat, #hsgovchat, and #worldgeochat showed their participants lived in wide range of places too.

![Map of Locations](image)

*Figure 4.1. Locations of participants who posted tweets using the #sschat hashtag during one week of this study.*

As discussed previously in this chapter, #sschat participants had a wide variety of needs and likely benefitted from being connected to a global network of participants with a range of experiences. One survey respondent indicated that she thought one of the advantages of #sschat was “to network and collaborate with others in the profession” (survey respondent8, 10/12/2015). Another respondent appreciated that #sschat provided him with access to a “wider network” (survey respondent4, 9/28/2015).

An analysis of the data revealed that having access to a large, distributed network could be advantageous when there was a desire to interact with people who might have different experiences. For example, one participant appeared to want to demonstrate that social media could be used by educators to get responses from people around the world and posted a request for help on #sschat. According to Figure 4.2 below, 214 people—from different regions of the world including Canada, Ireland, Ghana, United States—
responded to the request. While this is a rather simplistic example of the benefit of being connected to a large network of educators, earlier in this chapter I provided several examples of requests made in a context where participants likely benefitted from being connected to educators in a wide range of places (see Table 4.2).

![Figure 4.2. Tweet posted to elicit responses from other educators.](image)

Interacting with a global network can be useful because it provides opportunities to connect and collaborate with educators who may have different ideas and new ways of thinking. Figure 4.3 below illustrates an interaction between two participants, one from New Jersey and one from Australia. This exchange was interesting for several reasons. First, it showed what happened after an Australian teacher was exposed to a unique teaching tool (in this case, a kinetic sand table) that a teacher from the U.S. was using with her high school students to reenact battles, among other things (e.g., “took a while but we got the kinetic sand table”). Second, it revealed that the Australian teacher and his
students had brainstormed a variety of unexpected uses (e.g., “still brainstorming all the uses for it, so many I hadn’t thought abt [about]”) which the U.S. teacher appeared to see as an opportunity for her to learn from in return (e.g., “you will share some, it will be a great tool!”). This is one of many examples in which participants engaged in a discussion pertaining to a mutual interest that related to student learning but was in no way connected to the type of district/state/country mandates that are typically the focus of school/district-wide professional development. In fact, during my study, participants did not tend to engage in discussions with other participants about meeting requirements imposed on them by their district/state administrators. This suggests that bringing together educators from diverse geographic locations may be beneficial because it allows them to share new and interesting ideas without the constraints of having to focus on meeting specific mandates.
Figure 4.3. Participants from the U.S. and Australia discussing uses for a kinetic sand table.

It was interesting to observe participants who lived in different parts of the world who used pedagogical approaches in slightly different ways, too. For instance, one
Chicago participant was surprised to find out that a teacher was using a similar approach that involved their students taking responsibility for self-assessing the skills they were working on in their social studies classes. In Chicago, the participants referred to these as “can do” statements. In Australia, the participant used a similar approach, posted them on the white board every day, and called them “success criteria.” While it is not known whether either participant made any change to their instructional practice based on the shared dialog, it is easy to argue that being exposed to similar ideas that are implemented in slightly different ways provided an opportunity to think about how small changes to a pedagogical approach or instructional strategy may affect how students learn. Unlike traditional school or district professional development settings where everyone is expected to “take-up” some new instructional approach, #sschat participants were able to make their own decisions about what approaches—if any—they adopted or adapted.

Indeed, data from my study supported previous studies which found that teachers appreciated access to global networks of educators who taught similar subjects and were willing to share ideas (Booth, 2012; Carpenter & Krutka, 2014; Duncan-Howell, 2010; Forte et al., 2012; Hargadon, 2010; Herbert, 2012; Hur & Brush, 2009; Krutka, 2017; Rodesiler, 2014; Rodesiler et al., 2014; Schlager et al., 2009; Seo 2013; Visser et al., 2014; Wesely, 2013).

The examples discussed within this section are illustrative of how #sschat provided an opportunity for participants in different parts of the world to learn from each other with regard to a range of instructional/pedagogical approaches. In a world in which “teachers need to know how and when to use a range of practices to accomplish their
goals with different students in different contexts” (Darling-Hammond, 2006, p. 304), it is possible that by considering nuanced differences within similar approaches may help teachers realize how to make minor adaptations to address the different learning needs of their students and their own teaching context etc.

**Diverse Roles and Responsibilities**

Previous studies of online spaces for educators that relied on survey data alone asked respondents to identify their positions in broad educational terms, such as teacher, school-level administrator, teacher educator and so forth. My study adds to this body of knowledge by providing evidence there was great diversity in terms of positions that were held by #sschat participants and the educational settings in which they worked—much greater than survey results in other studies seemed to suggest.

As mentioned previously, #sschat participants were not required to register or log-in to Facebook or Twitter. To understand the type of educators that participated in this affinity space, I collected the position names/title of participants who chose to identify themselves during the introductory phase of one of each of the synchronous #chats (#engsschat, #hsgovchat, #sschat, #worldgeochat). The purpose of Table 4.4 is to provide a holistic way to consider the diverse experiences that weekly synchronous Twitter #chat participants brought to the affinity pace.

By examining how the participants introduced themselves in the synchronous #chats, I found that they described themselves in more nuanced ways than had been captured previously (see Table 4.4). Participants who were teachers generally identified themselves by the specific grade or course they taught and noted explicitly when the
course was a college-level course (e.g., AP US History). The data showed that #sschat participants reflected experiences from elementary, middle, and high schools along with teacher educators. In addition to teaching social studies, #sschat participants also identified as English instructors, instructional aids, coaches, technology specialists, and administrators. Some worked at the school level (e.g., instructional coach for middle school); others worked at the district level (e.g., school district social studies leader); and at least one participant identified as a retired teacher. There were self-described students, pre-service teachers and those responsible for preparing future teachers in the #sschat affinity space. In addition, there were participants who represented various government agencies (e.g., National Archives), non-profit organizations (e.g., iCivics), and content providers\(^{13}\) (e.g., GetSoundsAround) interacting with others within the #sschat affinity space. Furthermore, it was interesting to observe participants from different educational settings (e.g., charter, private, public, and virtual schools, teacher preparation programs, non-profit /government organizations) engaging with one another given that traditional professional development settings usually comprise just the school or a district level space and do not involve educators from other institutions or organizations.

\(^{13}\)To simplify the discussion, I use the term content provider for all groups (e.g., government agencies, non-profit organizations, for profit companies) that provide resources to educators.
Table 4.4

Descriptors Used by Participants During Introductory Phase of Synchronous #Chat

<table>
<thead>
<tr>
<th>Category</th>
<th>Descriptors Used by Participant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade</td>
<td>4th grade, 5th grade, 7th grade social studies, 7th grade geography, 7th grade world history, 8th grade social studies, 6-8 grade civics, middle school social studies, middle school SS and ELA, HS social studies</td>
</tr>
<tr>
<td>Content</td>
<td>US history, world history, government, world geography, sociology, psychology, English/social studies, English</td>
</tr>
<tr>
<td>School or district-wide position</td>
<td>social studies specialist, social studies coordinator, K-8 supervisor of curriculum, instructional coach for middle school, assistant principal, tech integration specialist, technology trainer, teacher coach, learning coach, school district social studies leader</td>
</tr>
<tr>
<td>Other</td>
<td>pre-service, instructional aide, teacher of different learners, international school teacher, teacher educator, SS teaching credential program, retired social studies educator, students</td>
</tr>
<tr>
<td>Content providers</td>
<td>USNatArchives, ProjectExplorer.org, iCivics, TheNewsJunkies, IWitness, GetSoundsAround, StudentsHistory</td>
</tr>
</tbody>
</table>

To simplify the discussion, I use the term content provider for all groups (e.g., government agencies, non-profit organizations, for profit companies) that provide resources to educators.

As illustrated in Table 4.4 above, the various roles and responsibilities identified by #sschat participants encompassed more than what is typically found in schools or districts. As a result, there were opportunities to be exposed to new and different ideas that participants were implementing in similar courses as well as those that were happening at different courses and grade levels (e.g., middle/high school) that might be of interest to each participant in different ways. Moreover, the data revealed there were opportunities for participants to benefit from interacting with others with whom they had interdependent roles. For instance, the data revealed that teacher educators had a chance to be exposed to the types of authentic experiences and resources that practitioners were
currently using with their students. Pre-service students had the ability to share with other #sschat participants what they were learning in their teacher preparation courses and what they were observing in their practicum experiences. Administrators and holders of other school and district-level positions were able to benefit from participants’ posts regarding what was working in their classrooms as well as become aware of the struggles they faced. (See Chapters 5 and 6 for specific examples and discussion of this topic).

**Experiences with Digital Technologies**

A close analysis of the data revealed participants brought with them a wide range of experiences that related to the use of digital technologies for educational purposes. Previous studies of online spaces for educators revealed that technology was perceived by the participants as a barrier because of the software used (Warburton, 2009) and a challenge because of the public nature of the posts (Thang et al., 2011). Other more recent studies found that some participants appreciated the ability to learn about how to use digital technologies with their students as a result of becoming aware of how other participants were using social media with their students (Krutka & Carpenter, 2014; Rodesiler et al., 2014; Wesely, 2013). It must be said at this point that these studies used survey data (primarily comprised of closed questions) or data collected from interviewing a small number of educators. As a result, they provided limited information about the types of experiences educators had using digital technologies to support their learning. Data collected from my study suggests that participants brought a wide range of experiences and interests related to the use of digital technologies to the #sschat affinity space. Thus, in this section, I discuss three factors in relation to these experiences that
likely affected the ideas and information that participants shared: (a) “regular” participants’ experience in or with using Twitter, (b) participants’ specialized knowhow and interests using digital technologies, and (c) interactive student learning experiences.

“Regular” participants’ experiences. An examination of the Twitter statistics\textsuperscript{14} for #sschat participants suggested that “regular” participants had extensive experience using Twitter. “Regular” in this sense means participants who had posted tweets during more than one synchronous #chat session and were not one of the identified co-leaders/moderators. To illustrate, Table 4.5 below reflects the Twitter use of three “regular” weekly #chat participants from #hsgovchat, #sschat, and #worldgeochat.\textsuperscript{15}

Table 4.5

<table>
<thead>
<tr>
<th>#chat Name</th>
<th>User Name</th>
<th>Year</th>
<th>Tweets</th>
<th>Followers</th>
<th>Following</th>
</tr>
</thead>
<tbody>
<tr>
<td>#hsgovchat</td>
<td>Lovgov</td>
<td>2011</td>
<td>4332</td>
<td>273</td>
<td>322</td>
</tr>
<tr>
<td>#hsgovchat</td>
<td>HerrForce1</td>
<td>2011</td>
<td>2896</td>
<td>398</td>
<td>416</td>
</tr>
<tr>
<td>#hsgovchat</td>
<td>Classroomtools</td>
<td>2009</td>
<td>29605</td>
<td>2431</td>
<td>875</td>
</tr>
<tr>
<td>#sschat</td>
<td>Jedikermit</td>
<td>2009</td>
<td>56567</td>
<td>2011</td>
<td>1067</td>
</tr>
<tr>
<td>#sschat</td>
<td>Robitaille2011</td>
<td>2011</td>
<td>12701</td>
<td>2754</td>
<td>2272</td>
</tr>
<tr>
<td>#sschat</td>
<td>Scottmpetri</td>
<td>2014</td>
<td>5475</td>
<td>1430</td>
<td>1229</td>
</tr>
<tr>
<td>#worldgeochat</td>
<td>Mrshistorylee</td>
<td>2009</td>
<td>6146</td>
<td>1153</td>
<td>1743</td>
</tr>
<tr>
<td>#worldgeochat</td>
<td>GeoJo22</td>
<td>2009</td>
<td>6911</td>
<td>920</td>
<td>1370</td>
</tr>
<tr>
<td>#worldgeochat</td>
<td>GeoPenny</td>
<td>2011</td>
<td>12808</td>
<td>1249</td>
<td>1206</td>
</tr>
</tbody>
</table>

\textit{Note.} Data collected from regular participants’ Twitter profiles. I did not include any “regular” participants of #engsschat since it was a monthly #chat and only occurred one time during my study.

The data provided in Table 4.5 above suggests there were two factors related to

\textsuperscript{14} Data collected from regular participants’ Twitter profiles.
\textsuperscript{15} I did not include any “regular” participants of #engsschat since it was a monthly #chat and only occurred one time during my study.
#sschat regular participants’ uses of Twitter that may have contributed to the types of interactions occurring within the #sschat affinity space. First, the large numbers of tweets posted by regular #sschat participants in combination with their use of Twitter over multiple years suggested that they found Twitter to be a useful tool for communicating with others and/or sharing information; and consequently, were able to “model” how it could be used to connect and interact with others interested in social studies education. For instance, the regular participants routinely used the “lingo” associated with Twitter, including abbreviations (e.g., Ss [students]), url shorteners (e.g., http://t.co/Ji3GytjUOi) and shortcut buttons (e.g., RT, like) but did it in a way that supported engaging in topics related to professional practice. This modeling was important to note because some participants did not seem overly accustomed to using Twitter as a medium of communication to engage in professional discussions (e.g., “never knew that Twitter could be used in this way”).

Second, looking holistically at the large number of people following the regular participants and that they were following in turn (e.g., jedikermit), suggests that the #sschat affinity space provided an environment conducive to the cross-pollination of ideas. Traditional school/district professional development models tend to rely on face-to-face interactions of people who work in the same district, thereby limiting the opportunity for new innovative ideas/approaches to make their way in to the discussions. Previous researchers found that educators who were participating in online spaces for educators—and whom they viewed as early adopters—got ideas from their interactions in these spaces and brought these ideas back to their colleagues (Carpenter & Krutka, 2014;
Forte et al., 2012; Wesely, 2013). However, it is easy to argue that #sschat participants likely were exposed to new ideas or learning by means of other people using Twitter, given the large number of people they were following (see Table 4.5 above) and the chance they might have other interests beyond social studies. Therefore, it is conceivable that #sschat affinity space participants were bringing ideas/information obtained from interactions they had with others they follow to the #sschat affinity space (so that their own Twitter feed includes posts from who they’re following in the #sschat affinity space, which, in turn makes it easy to access these posts because they’re right there when they check Twitter). Moreover, #sschat participants’ followers and school colleagues may have benefitted from what #sschat participants did with the ideas/information shared by those whom they followed. In Chapter 5, I discuss in more detail how digital technologies were used to support the cross-pollination of ideas that occurred during the time of my study.

**Specialized knowhow and interests.** An examination of #sschat participants’ Twitter profiles strongly suggested they had a range of experiences with/in using digital technologies in schools and districts (see Table 4.6 below). For example, some participants were employed in positions that supported the use of digital technologies in schools. Their experiences involved overseeing technology use at the district level (e.g., “K-12 Tech Coordinator”), teaching about technology use (e.g., “Tech Ed teacher”), supporting others in integrating technology (e.g., “Technology Integration Coordinator”), and as social studies teachers preparing students to use technology (e.g., “Educator passionate about inspiring civic-minded, tech savvy graduates”), to name a few. This
was interesting because it suggested participants had a range of experiences associated with supporting teachers and students with regard to their use of hardware and software along with designing the type of learning experiences in which digital technologies were leveraged to support student learning. It is possible that this variety in experiences using digital technologies was a result of #sschat primarily being an affinity space mediated online; and, consequently, attracted participants who valued using digital technologies in support of professional practice.

Table 4.6

*Participants’ Descriptions as Technology Users*

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certificate/training</td>
<td>Google Certified Educator, Masters in Educational Technology, Flipped Class Certified</td>
</tr>
<tr>
<td>Classroom use</td>
<td>Avid SMART Board User Teaching in a SMART Collaborative Classroom, 1:1 GAFE Classroom, Flipped Classroom</td>
</tr>
<tr>
<td>Position / role</td>
<td>Technology specialist, K-12 Tech Coordinator, Instructional Technology Facilitator, Technology Integration Coordinator, Social Media &amp; Social Studies Researcher</td>
</tr>
<tr>
<td>Devices</td>
<td>1:1 Chromebook classroom, Mobile learner, Teacher interested in iPad technology</td>
</tr>
<tr>
<td>Interests</td>
<td>Obsessed with Integrating tech to enhance instruction, EdTech Afficianado, lover of Tech and learning, Educational Technology Advocate, Google fanatic!</td>
</tr>
<tr>
<td>Social media use</td>
<td>Let’s use Twitter for good, Dedicated 2 professional development thru social media, Co-Creator of #sschat</td>
</tr>
</tbody>
</table>

In addition to signaling their own tech-related roles and orientations in their profiles, #sschat participants also indicated their interest in using digital technologies to support student learning in a variety of ways within their Twitter profiles. First, they
included tech-specific degrees (e.g., “Masters in Educational Technology”) or certifications (e.g., “Google Certified Educator”) they held/had earned. Second, participants used a variety of terms to identify their positionality regarding technology use (e.g., “lover of Tech and learning,” “EdTech Afficianado”) and their enthusiasm for using specific digital technologies (e.g., “Google Fanatic”, “Google earth wonk”). Third, they included brief descriptions regarding how they used digital technologies in their classrooms (e.g., “Avid SMART Board User,”) and how they leveraged it to support students learning basic information at home so in school time could be used for students to engage in more discussion-oriented, collaborative experiences (e.g., “Flipped Classroom”). And, fourth, participants shared information about the access they had to digital technologies in their classrooms. This was interesting because the type of devices (e.g., 1:1 Chromebook classroom) that were identified indicated that these participants and their students each had access to digital technologies in their own classroom on an everyday basis. This appeared to be a great advantage because it suggested they had control over when digital technologies were used in their classroom and it appeared they were not limited to their use based on the availability of a computer lab or laptop cart. For instance, the notation of “1:1 GAFE [Google Apps for Education] Classroom” meant every student had their own laptop with productivity software that was designed to be collaborative and accessible anytime, anywhere.

The inclusion of these descriptions within their Twitter profiles suggests that #sschat participants wanted to position themselves as technology capable educators or draw attention to their experiences with technology that might be of interest to other
people with similar interests. Further, the information conveyed in the profiles also suggested that there was much more expertise and in-depth experiences within using digital technologies within the #sschat affinity space than one might expect to get within a single school. The professional development literature around the world, for example, tells us that many educators do not feel sufficiently prepared to teach using digital technologies (Dussel, 2016; El-Hani & Greca, 2013; OCED, 2014; Kalman & Guerrero, 2013; Knobel & Kalman, 2016; Thang et al., 2011); therefore, it is easy to argue that #sschat participants are likely to benefit tech-wise from learning from and engaging in discussions with educators who have a wide range of experiences using digital technologies in their schools and districts.

**Interactive student learning experiences.** A close analysis of just the tweets across the month-long period of this study revealed that, in addition to sharing links to useful online resources (see next section), #sschat participants shared examples of learning experiences that foregrounded their students as active learners mediated by digital technologies. As illustrated in Table 4.7 below, this involved the use of digital technologies being leveraged by teachers to provide experiences that were not previously possible in an analog world. First, rather than just reading about historical places or geography, #sschat participants used digital technologies as a way for their students to explore faraway places (e.g., “Thank you @nearpod for allowing me to travel the world with my Ss with virtual field trip”) and connect with students in another state (e.g. “Skyping w/ class in Michigan led to some awesome geography discussions”). Second, #sschat participants shared how they used digital technologies in new ways to make their
assessment process more meaningful. This involved asking more questions requiring analysis and application (e.g., “my kids take their tests on the iPad allowing me to include more documents and pictures”), offering immediate feedback (e.g., “Could see student progress in real time; see which Q was problem & remediate”), and collecting multiple work samples (e.g., “ Entire dept has committed to using digital portfolios). Third, participants took advantage of the affordances inherent in digital technologies to design unique experiential learning experiences (e.g., “Google Forms for Class Elections http://t.co/TNvkJ5dq5z #amwriting #edtechchat #sschat”).

#sschat participants also provided examples of their students using digital technologies as an interactive communication medium. For instance, students were learning to use authentic tools to support student learning such as social media (e.g., “Having fun watching my Ss mock live tweet their Fed Paper group discussion”) and digital storytelling software (e.g., “Introduced @Adobe_Slate to my Ss today”). One participant shared a link to his blog in which he described how his students in two different locations used a #chat feature to actively engage in learning experiences together (e.g., “2 class, 2 schools learning together? Here's the latest. http://t.co/gjNw2j2ee3”).
Table 4.7

*Experiences Leveraging Digital Technology in Support of Student Learning*

<table>
<thead>
<tr>
<th>Tweet</th>
<th>Description</th>
<th>Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Having fun watching my Ss mock live tweet their Fed Paper group discussion. #madisonhamiltonjay4thewin #hsgovchat</td>
<td>Students using social media to discuss history topic</td>
<td>Interactive communication tool</td>
</tr>
<tr>
<td>Using @GynzyUS for social studies review. Students wanted to keep playing! #edtech #sschat #gynzy <a href="http://t.co/jaqAoTFVbX">http://t.co/jaqAoTFVbX</a></td>
<td>Students enjoyed playing an interactive game that was customized to be a review about the Hopi Tribe</td>
<td>Interactive review tool</td>
</tr>
<tr>
<td>Introduced @Adobe_Slate to my Ss today. They were very excited. #1to1techat #sschat #ettipad #sstlap</td>
<td>Students have access to free, online app designed to create webpages in minutes and for digital storytelling</td>
<td>Creating digital stories</td>
</tr>
<tr>
<td>Used @Socrative app to make &amp; give quiz. Could see student progress in real time; see which Q was problem &amp; remediate.on …</td>
<td>Students demonstrate what they know and teacher is able to address any issues immediately</td>
<td>Formative assessment that facilitated immediate feedback</td>
</tr>
<tr>
<td>I use @nearpod for notes with embedded questions and links. The class really enjoys it compared to tradition notes. #ss</td>
<td>Students enjoy using an interactive digital form of notetaking</td>
<td>Interactive note-taking tool</td>
</tr>
<tr>
<td>Thank you @nearpod for allowing me to travel the world with my Ss with virtual field trip. Best new feature for #historyteachers! #sscha</td>
<td>Digital technologies remove time, financial and geographic constraints and allow students to “go” to places around the world (virtual field trip)</td>
<td>Crossing geographic borders</td>
</tr>
<tr>
<td>Entire dept has committed to using digital portfolios. 1st batch coming in next Wed. Planning to use Doctopus for assessment #sschat</td>
<td>Digital technologies, including a Google add-on (Doctopus) used to monitor student progress over time (digital portfolios)</td>
<td>Curating student work as an assessment took</td>
</tr>
<tr>
<td>my kids take their tests on the iPad allowing me to include more documents and pictures <a href="http://t.co/CP0UkMR31r">http://t.co/CP0UkMR31r</a> #sschat</td>
<td>Link to teacher blog that discusses how she uses digital technologies to create assessments with more analysis and application questions</td>
<td>Promoting critical thinking</td>
</tr>
<tr>
<td>Have you heard of <a href="http://t.co/e1Kw38X1BP">http://t.co/e1Kw38X1BP</a> . I allow kids to post on there using phones. It’s a back channel #sschat</td>
<td>Students are able to simultaneously engage in discussions with one another using their phones</td>
<td>Interactive communication tool</td>
</tr>
</tbody>
</table>
These examples are interesting because in each of these scenarios students were doing more than reading about what happened in the past or consuming information the teacher determined to be important. The posts provided evidence that #sschat participants were willing and interested in sharing their experiences leveraging digital technologies to bypass geographic boundaries, make assessment experiences more meaningful, develop skills using digital technologies that were beneficial outside of school, engage in simulated experiences that promoted civic engagement and promoted learning through social interaction. This type of information was useful because having access to/hearing from practitioners who have experience using digital technologies in authentic and meaningful ways was important because most educators learned to teach in an analog world and many do not feel sufficiently prepared to teach with digital technologies (Kalman & Guerrero, 2013; Knobel & Kalman, 2016; OCED, 2014; Thang et al., 2011).

In this section focused on the diverse experiences participants brought to #sschat, I provided a map which illustrated how diverse the participants were in terms of their
geographic locations. I shared examples of how being connected with educators from other educational settings was beneficial because it brought in new ideas. I provided a list of the diverse roles and responsibilities which illustrated the diverse experiences participants brought to #sschat. In addition, it revealed that some participants had interdependent roles and were likely to benefit from engaging in the same space (e.g., teachers/administrators, pre-service teachers/teacher educators). Finally, I considered the diverse experiences that participants already seemed to have with respect to using digital technologies in support of student learning, and that they appeared to engage in as a result of their access to digital devices in their schools. I found that “regular” participants seemed to have extensive experience using Twitter which was likely an advantage within this space because they could model the type of actions commonly found in the affinity space (see Chapter 5, Modifying Twitter Practices for more information on this topic). In addition, #sschat participants’ revealed they had a wide variety of experiences with digital technologies which was likely to be beneficial to participants who do not have such access in their schools. Overall, it appeared that the diverse needs and interests of #sschat participants brought to the affinity space made it a rich environment for participants who were interested in engaging with others with whom they shared similar interests.

**Diverse Factors that Influenced Resource Sharing**

The literature regarding online spaces for educators has shown that Twitter has been used by educators to engage in discussions, make requests, provide support, and share and access resources in the form of links to useful websites for teachers and this
study supports those findings (Booth, 2012; Byington, 2011; Carpenter & Krutka, 2014; Duncan-Howell, 2010; Forte et al., 2012; Hargadon, 2010; Herbert, 2012; Holmes, et al., 2013; Hur & Brush, 2009; Krutka, 2017; Krutka & Carpenter, 2015; Rodesiler et al., 2014; Sari & Tedjasaputra, 2012; Schlager et al., 2009; Visser et al., 2014; Wesely, 2013). Given that my research question asks, what can be learned from online spaces for educators, such as #sschat, that can inform and shape more formal professional development, a close examination of the factors that influenced the resource sharing experiences is warranted. I begin by investigating the type of resources that were being shared. I explore who was sharing resources. I identify the responsive nature of resource sharing. Then I discuss the significance of resource sharing within the #sschat affinity and among its participants.

**Type of Resources**

For purposes of discussion, I have chosen to focus on websites that were shared on Constitution Day (September 17), the first day of this study. In the United States, all schools that receive federal funds are required to teach about the Constitution on this day. As a result, a wide variety of resources about the same topic (the Constitution) were posted to #sschat making it possible to identify some patterns regarding resource sharing. The resources included in Table 4.8 below are representative of the type of resources that were shared on Constitution Day.
Table 4.8

**Representative Examples of Constitution Day Resources**

<table>
<thead>
<tr>
<th>Resource Type</th>
<th>Twitter or Facebook Post</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Educator created resource list</td>
<td>For teaching</td>
<td></td>
</tr>
<tr>
<td>Educator created video</td>
<td>For teaching</td>
<td></td>
</tr>
<tr>
<td>Content provider’s list of resources (@iCivics)</td>
<td>For teaching</td>
<td></td>
</tr>
<tr>
<td>Content provider’s list of resources (@BillofRights)</td>
<td>For teaching</td>
<td></td>
</tr>
<tr>
<td>Current news story</td>
<td>About teaching</td>
<td></td>
</tr>
<tr>
<td>Live streaming event</td>
<td>For educators</td>
<td></td>
</tr>
<tr>
<td>Educator recommended resource</td>
<td>For teaching</td>
<td></td>
</tr>
<tr>
<td>Current news story</td>
<td>About teaching</td>
<td></td>
</tr>
<tr>
<td>Learning activities w/ link to version in Spanish (posted by @socialstudieschat)</td>
<td>For teaching</td>
<td></td>
</tr>
<tr>
<td>Lesson plans and activities (posted by</td>
<td>For teaching</td>
<td></td>
</tr>
</tbody>
</table>
A close analysis of Table 4.8 above indicated that there were three categories of resources shared: (a) for teaching, (b) about teaching, and, (c) in support of teachers’ personal/professional interests. The first category included resources that participants shared to aid in the teaching about the Constitution. For example, one participant posted a link to his webpage that included a curated list of lesson plans, activities, books, primary sources, and interactive games related to the Constitution (e.g., “It's Constitution Day - My Constitution page http://t.co/FBXUtInQWv”). Another participant shared a link to a video that was created by another social studies teacher (e.g., “RT @MrBettsClass: NEW VID: Bill of Rights (500 Miles parody) https://t.co/Bpkpl2srCr”) that he recommended was “Perfect for #Constitution Day.” Looking holistically at the resources designed for teaching, it was apparent that they were designed for students in elementary, middle, and high school who would likely have different levels of understanding about the Constitution. One participant posted a link to resources for Spanish speaking students. Some appeared to be for teachers who wanted their students to have opportunities to engage in fun activities. For instance, one site had an activity, “What Type of Founder Are You?” where students could answer questions and find out how their personality compared to those of the founders. For teachers who wanted to expand
their students understanding of the times when the Constitution was written there was a link to current news story (e.g., “Constitutionally, Slavery is No National Issue http://www.nytimes.com/2015/09/16/opinion/constitutionally-slavery-is-no-national-institution.html?_r=0”).

The second category included resources designed to help teachers think about what was the best way to teach specific subjects based on their students’ needs and interests. For example, there was link to a website that asked teachers to think about whether they would teach about the Constitution from dominant perspective or provide activities that would allow students to take a critical stance and consider it from the perspectives of marginalized groups of people. Other studies reported that participants appreciated resources shared on online sites for educators that keep them abreast of current trends in social studies (Carpenter & Kruta; 2014; Krutka, 2014, 2017; Krutka & Carpenter, 2016). This tweet is one of many examples from my study that supports that finding.

A third category of resources that was shared on #sschat appeared to target educators who might be interested in delving into a topic because of their own personal interests or to be better prepared to teach a particular topic. There were far fewer resources in this category. Nonetheless, in terms of Constitution Day, there was a link to a livestream of a program at the National Archives called The Young Madisons: Why a New Generation Is Standing Up for the Constitution. The discussion was the ninth lecture in a series about the State of the Constitution and it featured young leaders discussing their roles in policy, government and positions that promoted civic
engagement. This panel discussion would likely appeal to someone who has a deep understanding and interest in the Constitution, such as an AP Government teacher. This post was interesting because it reminds us that it is beneficial for teachers to have access to resources that foster continual professional growth.

The identification of three categories of resources (i.e., for teaching, about teaching, and to support participants’ personal interest or growth) that were shared in #sschat was an important finding from my study because it demonstrated that educators were interested in having access to different types of resources. As such, it provided an example of one way that professional development can be differentiated for educators who have different needs and interests. As demonstrated, this type differentiation with regard to resource sharing was most apparent during historic or newsworthy events such as Constitution Day, Columbus Day, resignation of the Speaker of the House and so forth when multiple resources were posted about the same topic.

**Resource Providers**

It has been well-documented in the literature that educators appreciate the vetting that typically takes place before resources posted in online communities (Blitz, 2013; Forte et al., 2012; Hargadon, 2010; Herbert, 2012; Krutka & Carpenter, 2014; Rheingold, 2014; Rodesiler, 2014; Rodesiler et al., 2014; Wesely, 2013). Since the purpose of my research is to understand what educators think it important to include in spaces they design for their own learning, it is important to examine who was sharing these resources. An analysis of the tweets and Facebook posts related to Constitution Day suggests that there appeared to be three types of participants that provided resources. Resources were
shared by individuals who created resources, #sschat participants who recommended resources created by others, and content providers.

It is likely that the resources that were shared by #sschat participants—who were educators—were viewed as valuable because it is assumed that they would recommend resources that were appropriate to use in schools. For example, one participant tweeted “bookmark this! Looks like a phenomenal tool with a balanced approach.” The link he provided went to a website where scholars presented arguments on constitutional issues from opposing points of view. The mention of a “balanced approach” was interesting because it showed that this participant was likely aware that there are different beliefs about how to teach about the Constitution. In fact, some of the resources that were recommended might have been viewed as having a particular perspective regarding the study of the Constitution that might be in opposition to some teachers’ or districts’ beliefs. For instance, some resources took a traditional approach regarding the study of the Constitution (e.g., “Sandra Day O’Connor/John Glenn commentary: Teaching of Civics in Need of Improvement”) while others took a more critical stance (e.g., “It’s Constitution Day! Time to Teach Obedience or History?).

It cannot be assumed that resources posted by #sschat participants were bias-free. However, the data showed that some recommendations received approval from multiple #sschat participants suggesting that they were value resources. For example, the tweet, “It’s Constitution Day—My Constitution Day page” was retweeted 25 times and had 19 likes. The link that was provided went to the individual’s website which he described as “The internet catalogue for students, teachers, administrators & parents. Over 20,000
relevan links personally selected by an educator/author with over 30 years of experience.” The music video that was described as “perfect for Constitution Day” was created by a social studies teacher who has a Youtube channel with more than 10,000 subscribers. And while this information does not mean the sites were bias free, it does indicate that other people found their work valuable.

Of particular interest were the posts provided by the content providers regarding Constitution Day resources. Typically, content providers did not interact directly with educators except at state and national conferences. However, a type of symbiotic relationship appeared to exist between the content providers and other participants within the #sschat affinity space. As illustrated in Table PR, @iCivics and @BillofRights posted links to unique webpages that were created specifically for Constitution Day. These webpages included a curated list of resources from their website that provided a wide variety of activities that educators at elementary, middle, and high school might find useful to teach about the Constitution. Pointing #sschat participants directly to their Constitution Day resource page on their websites was advantageous to #sschat participants for several reasons. First, it brought awareness of their organization and the type of resources that they provided for “free” teachers and students. Second, the creation of a single landing page for Constitution resources was helpful because educators often need access to a wide variety of resources (e.g., games, lesson plans, videos, foundational knowledge) to differentiate learning experiences based on their students’ needs and interests. Providing access to multiple resources with brief descriptions about each on one webpage was a great time-saver for #sschat participants.
Third, given that they these resources were specifically selected for use on Constitution Day (e.g., “curated for your classroom needs”), it is reasonable to assume that they were relevant and useful for the purpose intended given they reflected the site’s standards for inclusion. In contrast, a google search for Constitution Day resources returned more than two million hits including websites in which the creator’s expertise or authority might not be apparent or they might include advertisements that could be considered inappropriate for classroom use.

Regardless of whether the resource came from the creator, a #sschat participant recommendation or a content provider, it was incumbent upon #sschat participants to do their own evaluation of the resource before using them with their students. However, given the overwhelming number of hits resulting from an internet search on the topic, it is likely that participants found the recommended links to resources helpful. It is also worth drawing attention to the diversity of the resources that were shared on #sschat for Constitution Day. There were resources appropriate for students at every grade level, as well as specific resources for students who spoke Spanish. There were resources of every media type (e.g., video, audio, photographs, text). There were links to games for every age, primary sources, and current news stories. And while there was no certainty regarding the quality of the resource, it is likely that the #sschat participant posted the resource because he/she deemed it to be valuable. Finally, given the range of participants posting resources, it is likely #sschat participants had access to a larger variety of resources posted on the affinity space than they had in their own schools.
Responsive Nature of Resource Sharing

It was surprising to see how #sschat participants responded in recognition of historic event (e.g., Constitution Day), holiday (e.g., Columbus Day) or current event that was noteworthy (e.g., resignation of the Speaker of the House). In general, they posted links to resources, provided ideas related to teaching about the event, and they shared resources posted on #sschat to others in their network. I have already discussed a wide range of resources that were shared on Constitution Day by #sschat participants, some of whose responsibility is to provide resources to educators (e.g., content providers). As illustrated in Figure 4.4, the #sschat co-leader appeared to intentionally post a resource of the #sschat Facebook page in anticipation of participants looking for Constitution Day resources (e.g., “We’re posting this early and hope it’s helpful”).

Happy Constitution Day!!
Here is a link to the Constitution Centers interactive Constitution. Lots of background on the document!
We're posting this early and hope it's helpful.

http://constitutioncenter.org/constitution-day/

*Figure 4.4. #sschat co-leader posts a link to a resource that appears to be useful for addressing the U.S. federal law to teach about the Constitution on Constitution Day.*

It was interesting to see how #sschat participants responded to such posts. For instance, one participant responded by noting what he intended to do to mark the occasion with their students:

My American Government classes will be playing "Do I Have a Right?" From iCivics, watching "The Story of the Bill of Rights" from the Annenberg Classroom, and having students study and select & rationalize which right in the Bill of Rights to protect/give up on.
This post was interesting because it provided useful examples of activities for other participants to do with their students. In addition, it showed that participants were using some of the same resources that were shared from content providers discussed earlier in this section (e.g., iCivics, Bill of Rights). (Note: it is not clear if the participant found the resource on #sschat.) Another participant responded with a more lighthearted example of what he did with his students (e.g., “We gave all of our Freshmen pocket Constitutions. My class took selfies [sic] and instagrammed the occasion”). These responses were interesting because they demonstrated two very diverse ways to recognize Constitution Day.

It was unexpected to find that a “greeting card” that one participant created and posted on #sschat served as a resource for other #sschat participants to share with their networks in recognition of Constitution Day. As illustrated in Figure 4.5 below, it was liked by 52 people and shared by 44 people.
The fact that this greeting card—of sorts—was shared more than 40 times suggests that Constitution Day was of import to people who participate in an affinity space that facilitates interactions related to social studies instruction. This example was interesting because it demonstrated that participants came to the #sschat Facebook page on Constitution Day and decided to take action by showing their approval (liking the post) or forwarding the greeting onto their networks. The combination of these posts (see Table 4.8, Figure 4.4, and Figure 4.5) suggests that #sschat participants could expect that on
holidays or other special events there would relevant activities that would be of interest to those interested in social studies education.

In a similar way, participants turned to #sschat to share and/or access resources in response to the type of noteworthy events occurring in the world that might be addressed in a social studies class. The type of requests and resources posted depended on whether it was planned or unexpected event, the age of the students, and the type of available resources. For example, in anticipation of the Pope’s visit to the United States, one #sschat participant requested teaching ideas because she wanted to address this newsworthy event with her students. In this situation, it is not known whether anyone responded directly to the participant. However, as illustrated in Figure 4.6 below, #sschat participants posted resources about the Pope’s visit that could be used to facilitate a class discussion or shared with students who may have indicated an interest in the topic.

Tweet 1: With the papal visit in DC, a look back at Popes and Presidents.  

Tweet 2: #PopeFrancis sets a precedent addresses #Congress.#apgov #civicschat #sschat #hsgovchat #ushistory #MichEd https://t.co/izDo3AoQMu

*Figure 4.6.* Resources shared by #sschat participants in response to the Pope’s visit to the United States in 2015.

Given the historic and relatively positive nature of this event, it was possible that teachers of all grade levels would be interested finding resources suitable for use with their students. Therefore, having access to resources that were multimodal (e.g., audio file, video) could be advantageous since they could be used with a wide range of students regardless of their reading levels.
Another example in which participants turned to #sschat was in response to the resignation of the Speaker of the House. It was not surprising that #sschat participants who were interested engaging with one another regarding topics that related to social studies instruction would post comments and resources to #sschat given the mission of this affinity space was to “help social studies teachers… improve delivery of instruction to our students.” One survey participant with more than 10 years of teaching experience credited #sschat as “beneficial in helping me locate resources that are often scarce.” And, while she did not mention resources for current events specifically, it makes sense that such resources would be difficult to find given the dynamic nature of the event, especially in this circumstance.

For teachers committed to bringing current events into their classrooms, there was a need for access to resources that reflected the most up-to-date information. Fortunately for #sschat participants, educators immediately posted links to the latest news stories about the Speaker’s resignation and continued to do so throughout the event. Content providers continually responded to the events by sharing targeted resources that provided useful foundational information (e.g., background information, historical facts) as well as up-to-date information that related to the challenges of selecting a new Speaker in a range of formats (e.g., text, video). As discussed previously, it is conceivable that resources provided by #sschat participants were generally considered to be more helpful than results returned from an internet search because the participants understood the type of resources that would be useful for teachers and students. Further, having access to a wide range of resources was useful because teachers have different needs based on the students
that they teach (e.g., grade level, knowledge, skills), their own teaching experience (e.g., years, pedagogical content knowledge) and their expertise regarding the topic.

Looking holistically at the resources shared for Constitution (see Table 4.8), they could be categorized into three types: for teaching, about teaching, and for teachers with a personal interest in the topic. Within the first category of resources for teachers to use to promote student learning, there were several different kinds. Given that the law requiring students to learn about the Constitution did not stipulate what they needed to learn on that day, it was useful to have access to a wide variety of resources such as student-centered activities, games and simulations, lesson plans, primary sources, music parodies, videos, background information about the Constitution, and opinion pieces. Since students were supposed to learn about the Constitution every year, it was helpful that the resources targeted different grades levels. In addition, the vast array of resources about the Constitution could be used to learn foundational knowledge, develop historical thinking skills, and/or promote discussions about current political issues depending on how teachers chose to design their lessons. Having access to resources that were recommended by people who shared an interested in social studies education was helpful because it served as one level of filtering. Further, for educators who integrated current events into their classroom, it was beneficial to engage in a space with content providers who continually posted the most up-to-date and relevant resources related to the event.

Discussion

The question that guides this study is what can be learned from online spaces, such as #sschat, that can help to inform and shape more formal professional development.
I began this chapter by explaining the need to “unpack” the interactions among the 
#sschat participants to understand the various factors that contributed to what was 
happening in #sschat. In this chapter, I focused on examining the diversity inherent in 
the participants resulting from their needs and experiences.

According to its mission statement, the purpose of #sschat was designed to attract 
participants who were interested in engaging in activities related to social studies 
education. This space included educators who worked directly with students, educators 
who work at the school and district level to support students and teachers, and teacher 
educators who are responsible for preparing future educators. There were also retired 
educators and content providers who do not work in schools but provide resources and 
expertise that support social studies instruction. This configuration was different from 
what typically happens in schools where the role a person has influences the type of 
interactions he/she has during the day. To illustrate, during professional development 
days teachers and administrators are often given different responsibilities or meet in 
different spaces and therefore do not benefit from the insights or perspectives that are 
shared by members of the other group. Moreover, teacher educators and students 
desiring to become teachers do not typically take part in these experiences even though 
both groups play integral role in the teacher preparation pipeline. As such, what future 
teachers learn in their teacher education programs may feel disconnected from the 
expectations they face when they engage in their clinical experiences or become teachers 
(Cochran-Smith, 2010; Cochran-Smith et al., 2015). Further, the types of hierarchical 
structures that are commonly found in educational institutions are likely to influence how
people with different levels of authority engage with one another. For instance, in school settings, people in positions with little or no power may feel less comfortable sharing ideas or making decisions when in the presence of others who are in positions of authority. Having identified several examples of what can happen in school settings when different groups of educators are separated according to their positions, I turn now to examine what happens in the #sschat affinity space where participation is not restricted by factors related to age, gender, race, class, etc.

In contrast to most school settings, people participate in affinity spaces because of their passions and interests (Black, 2008; Curwood, 2013; Curwood et al., 2013; DeVane, 2012; Duncan, 2012; Durga, 2012; Gee, 2005, 2007; Gee & Hayes, 2010, 2012; Hayes & Lee, 2012; Lammers, 2012; Lammers et al., 2012; Lewis, 2014; Magnifo, 2012). In #sschat, school and district wide personnel—specialists, coaches, supervisors, administrators—who typically are older and have more years of experience, interact in the same space as pre-service and novice teachers (and even school students). #sschat participants of all ages and positions (including first-time visitors) posted resources, asked questions and/or provided feedback suggesting that the flattening of hierarchical structures that are commonly found in schools may have contributed to participants feeling comfortable sharing their ideas and experiences. As such, participants were able to engage with and benefit from the diverse perspectives that were shared within this space. Ideas came from participants who have yet to teach, those with many years of experience as well as from participants who have never worked in schools. It is likely that the cross-pollination of ideas that were possible in the #sschat affinity space (because
of the flattening of hierarchal structures) contributed to new ways of doing things, promoting experimentation, and encouraging innovative thinking (Hagel, Brown & Davison, 2012; Surowiecki, 2005). With that in mind, there is reason for teacher educators to want to better understand what happens when participants with diverse backgrounds connect and interact in activities that relate to student learning. Moreover, given the focus of #sschat, this study suggests that there is reason to consider expanding the notion of affinity spaces to include spaces where people go to connect and interact based on their personal and professional interests.

As previously discussed in Chapter 2, early affinity spaces, in particular, attracted people who shared a hobby such as fan-fiction writing (Black, 2008; Curwood, et al, 2013; Lammers, 2012) or playing video games, like Age of Mythology or The Sims (Duncan, 2012; Gee, 2005, 2007; Gee & Hayes, 2010, 2012; Hayes & Duncan, 2012; Hayes & Lee, 2012). There were also other spaces like Kongregate, which was inhabited by participants who were motivated by a variety of factors. For instance, participants included professional game designers, amateurs who hoped to become professionals, and others who engaged for their own personal satisfaction (Duncan, 2012). What each of these spaces had in common was a sense of authenticity that came from interacting with other participants that had similar interests and brought relevant experiences to the space. In the case of fan-fiction writers, they wrote their stories for a real audience and received feedback from actual readers. With respect to Kongregate, participants created games that were played and critiqued by other game designers. In each of these situations, participants were able to choose how they wanted to engage in the affinity space and to
what degree they might have chosen to change their behavior based on their interactions.

In contrast, research indicates that teachers are often required to participate in professional development at the school/district level without any consideration to their needs and interests or the unique experiences that they bring that might benefit others in attendance (Grossman & Hirsh, 2009; Tucker, 2011). Instead, outside experts provide a set of generic “best practices” for all teachers to implement. This approach can be problematic because teaching is a complex endeavor and cannot be reduced to a series of steps to be followed (Kennedy, 2016).

It is well established that a prominent feature of affinity spaces is the notion that participants represent a wide array of experiences and levels of expertise. Much of the literature of affinity spaces comes from studies using case study methodology where the focus is on an individual person and the type of interactions that he/she has in the space. These studies support the notion that participants with diverse experiences interact in these spaces. Yet, little is known about the impact that such diversity might bring to an affinity space or the outcomes that might be the result. My study contributes to the literature by documenting the diverse experiences that #sschat participants brought to the affinity space; and, by considering the affect they had on the interactions within the space. What can be said is that the diversity within the #sschat is likely more than what is typically found in an individual school.

Thomas and Seely Brown (2011) posit that when there is a problem, it is useful to ask a group of people with diverse experiences (see also Hagel et al., 2012; Surowiecki, 2005). Unfortunately, educators who are looking for new ideas or are interested in trying
new approaches are often limited to the type of professional development experiences available to them because of financial and time constraints (Darling-Hammond, 2015; Dede et al., 2006; Desimone, 2011a; Killion, 2013; Mizell, 2011; OCED, 2014; USED, 2010, 2017). Moreover, it is well-documented that teachers in rural and urban areas do not have opportunities to engage in discussions with colleagues that teach the same courses (Darling-Hammond, 2015; OCED, 2014). An analysis of the participants that engaged in #sschat revealed that they brought a wide range of experiences to the affinity space with regard to their years of experiences, where they lived, their roles and educational settings, and experience with digital technologies. As a result, they were well-positioned to respond to the diverse requests that the participants made.

The resources shared in recognition of Constitution Day serve as a useful example to illustrate the advantage of being connected to a group of educators with diverse experiences. The wide range of resources recommended by #sschat participants along with tips from experienced educators demonstrated that there were multiple ways to address this topic across the various grade levels. In addition, the resources served different purposes (e.g., for teaching, about teaching, to support a personal/professional interest) which was important because educators have different needs based on their backgrounds and experiences. In schools, when experts are brought in from the outside to provide professional development, the assumption is often that all teachers will need to learn the same information and therefore will benefit from the same type of learning experience or set of “best practices.” This approach does not take into consideration that some teachers may already have knowledge or experience in this area and may not find
this type of generic training valuable (Darling-Hammond & McLaughlin, 1995; Feiman-Nemser, 2001; Kennedy, 2016; Knobel & Kalman, 2016; Lieberman & Pointer-Mace, 2010). For example, if the goal is for teachers to incorporate inquiry in their classes, when planning professional development, it cannot be assumed that all educators have the same needs and interests. Some teachers may be interested in learning how to
develop a unit of study using an inquiry approach. Others may be in need of resources to
include in a particular inquiry unit. A few may need to gain a better understanding of an
event or topic that will be included in the inquiry unit. In #sschat, different types of
resources were posted online and participants were able to try them on their own, contact
the person that posted them to learn more or ignore the post entirely if it was not useful.
In addition, educators were able to post requests based on their specific need. Given the
diverse experiences of #sschat participants (e.g., teachers of the same/similar grades or
content areas, administrators, content providers), it was likely that someone was able to
provide assistance or make a connection to someone in his/her network that could
provide assistance.

It is to be expected that some teachers would want access to a wide selection of
resources because their students have diverse needs based on their individual experiences.
As with the example regarding the request for resources for the Sons of Liberty project
that was “stale”, teachers often want to try new instructional approaches from year to
year or from class to class. Teachers who desired to differentiate learning experiences for
their students would likely benefit from having access to an array of resources. As
described earlier, the resources provided for Constitution Day provided opportunities for
students to learn about foundational concepts by reading texts, watching short video clips or engaging in a simulated experience (game). In addition, some content providers shared resources in Spanish that were created to meet the needs of English language learners. Having access to resources created for this purpose was important because teachers have reported not feeling prepared to teach students who are learning English (Darling-Hammond, 2015; Lucas et al., 2008; Lucas & Villegas, 2011; Villegas & Lucas, 2010) and this population group is increasing in the United States (The Condition of Education, 2014). Depending on the experience of the teacher and the needs of the students, these resources could be used to support individual, small group or whole class lessons.

Additionally, access to a wide range of resources like those provided using digital technologies would be helpful for teachers who are expected to prepare students with the type of 21st century skills that they will need to engage in a tech-infused, global society (Darling-Hammond, 2006, 2015; Lambert, 2012; Kalman & Guerrero, 2016; Kennedy, 2016; Killion, 2013; Knobel & Kalman, 2016; Lieberman & Pointer-Mace, 2010; USED, 2010a, 2010b; USED, 2017). For example, teachers will need to create activities that do not rely on the textbook as the sole resource if they want to help their students develop critical thinking skills. Likewise, if teachers, particularly in a social studies class, want their students to consider something from multiple perspectives, they need opportunities for their students to interact with others who have different points of view. In addition, for students to understand what it means to live in a global society they need to hear first-hand about the experiences and challenges people in other countries face. Further, if
teachers want to prepare their students for life beyond school, they need to create learning experiences that have a real purpose rather than requiring students do the type of work that is done in school for a grade. As discussed previously, teachers could leverage some of the opportunities presented for students on #sschat as a way to create real-world tasks that involve an authentic audience.

While other researchers of online spaces for educators have noted the diverse experiences that participants bring based on their roles in a variety of educational settings (e.g., teachers, administrators, teacher educators), there has been little written about what happens when participants in interdependent roles (e.g., teacher/administrator; pre-service teacher/teacher educator) interact with one another. This is a topic that I will discuss in more detail in Chapters 5 and 6. What seems apparent from the data I have discussed thus far is that #sschat participants who were employed in school and district-wide roles and who work across grades and content areas (e.g., technology specialist, curriculum supervisor) would be well-positioned to introduce these resources to educators in their districts for use with their students. Similarly, teacher educators could share resources posted on #sschat with their pre-service teachers as a way to illustrate the many ways that are possible to differentiate learning experiences, develop specific skills or provide real-world tasks. Further, it is reasonable to assume that #sschat participants who are in positions designed to support educators (e.g., supervisors, administrators, content providers) were able to develop some insights about the unique needs of teachers as a result of the interactions in #sschat (see section about Diverse requests) and, as a consequence, be better equipped to meet the expectations of their role. Each of these
aforementioned experiences relate—in some way—to the type of behaviors that have been documented in the boundary crosser literature. Central to this idea is the notion that an individual is “transporting” ideas, resources, etc. from one space to another where it is assumed it will be leveraged to serve a useful purpose. However, Forte and colleagues (2012) documented this boundary crossing behavior as happening between teacher colleagues and did not consider the impact across different roles or across educational settings. My findings suggest rethinking/expanding the scope of their focus and examining what happens in affinity space as a way to better understanding what is happening in online spaces involving professionals who have interdependent roles.

Chapter Conclusion

I began this chapter by considering the diverse experiences that #sschat participants brought to the affinity spaces. The data revealed that there was great diversity with regard to the needs that the participants had. They were looking for particular resources that related to specific content or media type. I was surprised to find that participants were looking to make connections to provide their students with authentic audiences that would provide them with feedback and a real purpose for the writing assignments they were given. In addition, #sschat participants were looking to connect with others who taught similar subjects and could provide them with guidance. I found this interesting because school districts spend thousands of dollars to bring in “experts” to conduct professional development; and, the data showed that #sschat participants were interested in connecting with other practitioners like them who understood their challenges.
The range of requests was so diverse that it would likely require a global network of educators had a wide variety of experiences to able to provide the necessary assistance. What set #sschat apart from typical school / district-based professional development experiences was the diversity reflected by the participants in terms of their time as an educator (e.g., pre-service, in-service, retired), their role (e.g., teacher, district-based educator, teacher educator), the type of institution in which they worked (e.g., charter, private, public, virtual, teacher preparation program, non-profit/government organization), and where they lived (e.g., United States, Canada, China, Brazil). In addition, there were participants who were experienced Twitter users which was helpful because they were able to model the practices inherent in #sschat which was helpful for newbies. The diverse perspectives that the participants brought to #sschat were beneficial because they fostered a cross-pollination of ideas which likely promoted experimentation and contributed to innovative thinking.

In the next chapter, I consider how the use of social media created a platform that had a low barrier to access and could be adapted for the participants’ professional needs. I examine how digital technologies were used to attract participants and encourage participation in this online space. I reflect upon the practices that were inherent in #sschat and discuss how they facilitated unique interactions among the participants. And, I explore how digital technologies were leveraged to provide a range of opportunities for social interaction.
CHAPTER 5 PARTICIPATORY ENVIRONMENT: DIGITAL TECHNOLOGIES, KNOWHOW AND PRACTICES

In Chapter 2, I discussed the role digital technologies and their affordances played in the research literature about online spaces for educators. Digital technologies refer to the tools (e.g., digital devices, software, internet) and technical affordances associated with them (e.g., “like” a Twitter or Facebook post). An affordance in this sense refers to an action that makes it possible to do something by taking advantage of specific features within a particularly type of social media. There also are affordances associated with people’s knowhow and insider practices that affect how people interact in on/offline environments. In this section, I explore how digital technologies and their affordances—along with practices inherent in the #sschat affinity space—seemed to facilitate the ability of people interested in social studies education to connect and interact in a variety of activities including synchronous #chat discussions, sharing and accessing resources, making and responding to requests, etc. As an affinity space, #sschat is predominately an online environment (e.g., Twitter, Facebook, Google Docs, Storify) although there were data that indicated that some participants were interested in connecting face-to-face during the annual #sschat unconference at the National Council for the Social Studies conference along with other educational conferences that took place in the United States.

Researchers in the field of teacher education have identified the need “to illuminate technology’s impact on teaching and learning” (Borko et al., 2009, p. 9; see also Fishman et al., 2013, Selwyn, 2016; Moon, 2014, USED, 2017). In contrast to the type of research that focuses on software to improve student learning (described and
critiqued in Knobel & Kalman, 2016 and Selwyn, 2016, for example), data from my study suggest there is a much to be gained from studying the ways in which educators have leveraged digital technologies in support of their professional practice, particularly in the ways in which they engage with other participants with similar interests in online spaces.

In Chapter 4, I considered how diverse experiences and needs of the participants seemed to affect the interactions that occurred in #sschat. Because my research question asked what can be learned from online spaces, such as #sschat, to help inform and shape more formal professional development, a close examination of how #sschat participants leveraged the features and affordances associated with social media is warranted and will be addressed in this chapter. In Chapter 6, I explore the sense-making that occurs within the #sschat affinity space.

In this chapter, I closely examine how #sschat participants leveraged digital technologies in particular ways to support the diverse needs and interests of its participants. In doing so, I consider the factors that appeared to contribute to a low barrier to participation. In addition, I examine how social media and its affordances were leveraged deliberately to attract participants and encourage participation. I explore how participants took advantage of the affordances within the social media they were using—in combination with practices associated with the #sschat affinity space—to engage in different types of experiences that supported their interests in social studies education. I offer insights from the literature that relate to my study in the pertinent sections. Finally, I provide a more in-depth discussion of the intersection of my findings, Gee’s conceptual
framework of affinity spaces, and the relevant literature at the end of this chapter.

**Low Barrier(s) to Participation**

The concept of a low barrier to participation is important because when networked communities (Wellman, 1979, 2005; Wellman et al., 1996, 2001, 2003) and virtual communities (Rheingold, 1993, 2008, 2014) were first formed, participation was limited to those individuals who were technologically savvy and had the financial resources needed to communicate via the internet. Previous investigations of online spaces for educators using social media have focused on those primarily using a single type of social media (Biddolph & Curwood, 2016; Carpenter, 2015; Carpenter & Krutka, 2014; Colwell & Hutchison, 2018; Forte et al., 2012; Krutka & Carpenter, 2016, Hart & Steinbrecher, 2014; Holmes et al., 2013; Pino-Silva & Mayora, 2010; Ranieri et al., 2013; Rodesiler, 2014; Visser et al., 2014; Wesely, 2013). In contrast, and as I discuss in this chapter, an important finding from my study was that a “collective” of social media in combination with the participants’ knowhow, experiences, and practices facilitated a wide range of interactions in support of social studies education. Social media refers to websites and applications (online) that allow people to communicate and create content in collaborative environment. The data strongly indicated that a low barrier to participation existed because participants did not need special software or technical knowledge to engage in #sschat and they could use whatever social media that served their purposes for their interactions in the affinity space. The #sschat affinity space is comprised of many types of social media (see Table 5.1 below). For example, some media provided the
infrastructure for portals\textsuperscript{16} that supported interactions among participants (e.g., Twitter, Facebook). Others were employed by participants to create content/files outside of the #sschat affinity space and later shared with #sschat participants (e.g., Google slides). And some were used to store the synchronous #chat archives and files shared by participants (e.g., Storify, Google drive). Many of these social media are free-to-use and have a high profile in everyday life (e.g., Twitter is used to broadcast breaking news by government officials and celebrities, Google applications are used in schools).

Table 5.1

*Social Media “Collective” Used by #sschat Participants*

<table>
<thead>
<tr>
<th>Social Media</th>
<th>How Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Twitter (daily &amp; synchronous #chats) Facebook</td>
<td>Connect, interact, share/access resources, make/respond to request, announce upcoming events and opportunities for teachers and students</td>
</tr>
<tr>
<td>Storify</td>
<td>Archive synchronous #chat sessions</td>
</tr>
<tr>
<td>Wix.com</td>
<td>Broadcast information about #sschat, synchronous #chats, and unconference, access to archived chats, forms to submit synchronous chat topics and blog entries, provide history of #sschat</td>
</tr>
<tr>
<td>Blogspot</td>
<td></td>
</tr>
<tr>
<td>Google Docs</td>
<td>Create synchronous #chat questions</td>
</tr>
<tr>
<td>Pinterest</td>
<td>Access to resources shared during synchronous #chats</td>
</tr>
<tr>
<td>Google drive</td>
<td>Make and view unconference schedule</td>
</tr>
<tr>
<td>Google sheets</td>
<td>Participant-created resources</td>
</tr>
<tr>
<td>Google slides</td>
<td>Participant-created resources</td>
</tr>
<tr>
<td>Live binder</td>
<td>Participant-curated resources</td>
</tr>
<tr>
<td>Blogs (Wordpress, Blogger, Blogspot, Weebly)</td>
<td>Reflections of lived teaching experiences</td>
</tr>
</tbody>
</table>

\textsuperscript{16} A portal is an entry point to one of the (online) spaces where #sschat participants engaged with one another. For example, each of the #hashtags associated with #sschat affinity space was a separate portal.
In this section, I present three key findings from my analysis that strongly support my claim that a low barrier to participation was made possible by the use of a collective of social media. The first concerns how social media and its associated practices were adapted or modified for professional use within the #sschat affinity space over the month in which I collected data. The second key finding concerns how participants constructed usernames and bios that portrayed their “professional” selves (or a version of these selves), often in combination with their personal interests. In discussing the third key finding regarding how the use of social media contributed to a low barrier to participation, I reflect upon how some #hsgovchat participants took advantage of the affordances within Twitter to create a space where they could engage simultaneously with their colleagues and students.

**Modifying Everyday Twitter Practices for a Particular Affinity Space**

The data revealed that many of the participants seemed to be familiar with the original practices of Twitter—to answer the question, what am I doing or what’s happening—but did it in a manner that would likely be relevant to #sschat participants. For example, one participant took a “selfie” with a life-size cutout of a comic character (Captain America) and announced that he was going to attend a conference session on gaming (see Figure 5.1 below). The presumptuous nature of the comment, “We’re buds” combined with the photograph of a superhero mimicked the type of tweet people post when they take a photo with a famous person (e.g., football player, actress) and then make a comment that takes liberties describing the closeness of their relationship.
Another participant described his new approach to testing students’ knowledge (e.g., “Had my 1st group of students stay after for #TestCorrections. Never allowed them before”) and then told #sschat participants to “Look into it!” and indicated that it was “Changing the way I teach!.” In this case, the use of multiple exclamation points (to convey a sense of importance or urgency) and the inclusion of a made up #hashtag (e.g., “TestCorrections”) reflected two characteristics that are typical of many tweets: encouraging others to try something and including an invented a #hashtag. Even though this tweet followed the same format regularly used on Twitter to encourage others to try a new activity, the subject matter of this tweet and #hashtag would likely be relevant only to other educators or individuals interested in teaching or learning.

Similar to Twitter users who post vacation photographs and describe what they were doing, #sschat participants also shared photographs of what their students were doing with brief explanations. For instance, one participant shared a photo of his students (Figure 5.2 below) who appeared to be on a field trip designed to discover how people
lived in the late 19th century (the photo caption read: “experiencing how to do laundry in the 1880’s”). This post was interesting because it broadcasted information about a unique type of learning experience (e.g., experiential learning) to people interested in social studies education, as well as to the students’ family members. Moreover, this #sschat participant was able to use multiple #hashtags to provide a model of how he engaged students in a non-traditional learning experience for people who might be interested in doing the same for professional (e.g., “#sschat, #socialstudies”) and personal (e.g., “@cc_comets [Charles City Comets]”) reasons.

The examples provided here showed that participants used Twitter to share information about professional learning experiences they attended (e.g., gaming session with Captain America) as well as information about unique ways they were designing experiences to support their students’ learning. While my data supported previous
studies that found Twitter could be adapted for professional purposes (e.g., Carpenter & Krutka, 2014; Gao et al., 2012; Wesely, 2013), other studies have found that not all software that was used in people’s personal lives was successfully taken up by educators to be used for professional purposes. In a mixed methods study of pre-service K–8 educators, for example, Tsai and colleagues (2010, p. 227) found the “technologies and tools need to be easy for members to use in order to facilitate interaction.” This finding was borne out in other studies where researchers found Second Life\(^{17}\) to be a barrier to professional learning because it was difficult to learn how to use the software and the practices associated with behaving “appropriately” in the virtual worlds (Kim & Blankenship, 2013; Warburton, 2009). Admittedly, some #sschat participants who initially tried the synchronous Twitter #chats might not have been comfortable using social media and, consequently, did not return to #sschat after their first foray. This discomfort might have related to challenges associated with social media, such as not knowing how to use Twitter or knowing what type of posts to create for an educational space like this. Other researchers have found that participants were reluctant to create blog posts, for example, in studies of online educator spaces because they were not sure how to engage in this method of communication and reported technical difficulties using unfamiliar technologies (e.g., Thang et al., 2011). That being said, there was no evidence during my study of the #sschat affinity space that suggested any participants had difficulty using the social media that was associated with this space.

\(^{17}\) Second Life is a free 3D virtual world where users can create, connect, and chat with others from around the world using voice and text.
Portraying Professional Selves

The data also strongly suggested that across all of the #hashtag spaces associated with the #sschat affinity space, participants typically created unique usernames and/or profiles that appeared to reflect (to various degrees) their professional responsibilities and interests. I have chosen to discuss the content providers\(^{18}\) separate from the other #sschat participants (e.g., educators) because it appeared each group had adapted these Twitter features (e.g., usernames, bios) for different purposes which is best understood by unpacking separately.

Of course, without directly asking each participant about their username choices and decision-making in those choices it is impossible to claim with any certainty what participants’ intentions were regarding their username and profile description choices. That being said, the resonances between these usernames and the “nature” of the space make it possible to make strong inferences about how they wanted to be viewed. Content providers seemed to use their Twitter profiles (see Table 5.2 below) as a way to share information about the types of resources they could provide that might be useful to people interested in social studies education.

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\(^{18}\) Content providers refer to government agencies, non-profit organizations, and for-profit companies that participated in the #sschat affinity, primarily by providing resources in support of social studies education.
Table 5.2

*Content Providers and Their Twitter Profiles*

<table>
<thead>
<tr>
<th>Content Provider</th>
<th>Twitter User Name</th>
<th>Content Provider Twitter Bio</th>
</tr>
</thead>
<tbody>
<tr>
<td>USNatArchives</td>
<td>The nation's record keeper. Follow us for live tweeting of events, two-way conversations, and help with questions.</td>
<td></td>
</tr>
<tr>
<td>Icivcs</td>
<td>Empowering teachers with effective and engaging resources to develop the next generation of citizens.</td>
<td></td>
</tr>
<tr>
<td>KS_EdMktg</td>
<td>CMO/COO EdCourage, K-12 edtech startup. <a href="http://t.co/Oi0BoKCFoH">http://t.co/Oi0BoKCFoH</a> rubric maker, Zombie-Based Learning. Marketer, photographer, foodie. Lots of Twitter chats!</td>
<td></td>
</tr>
<tr>
<td>Graphite</td>
<td>Graphite, a free service from Common Sense Media, helps teachers find, understand, and share the best digital learning products available.</td>
<td></td>
</tr>
<tr>
<td>Hist_simulation</td>
<td>I'm the founder of <a href="http://t.co/NVZcdDK7XT">http://t.co/NVZcdDK7XT</a>, which offers interactive history lesson plans, PowerPoints for teachers. Programs designed by a teacher for teachers.</td>
<td></td>
</tr>
<tr>
<td>USCIwitness</td>
<td>IWitness is a free, transformative #edtech tool for students 13+ to interact with 1k+ video testimonies, and to connect with them, One voice at a time.</td>
<td></td>
</tr>
</tbody>
</table>

Close analysis of this information across all of the identifiable content providers in my data set revealed that these content providers described themselves in particular ways that likely helped #sschat participants determine their relevance. For instance, there were content providers who broadcasted information indicating they had free resources (e.g., @Graphite, USCIwitness), or that they understood the importance of curriculum resources that really would work in classrooms (e.g., “Programs designed by teacher for teachers” (@Hist_simulation), and one that cultivated “the best digital learning products available”). For participants looking for resources for student-centered learning experiences there were resources that were described in content providers’ profiles as
“effective and engaging,” some that were “interactive,” and others that were even “transformative.” I was surprised to find that @USNatArchives—known for maintaining important primary sources related to the history of the United States (e.g., self-described in Twitter their profile as “the nation’s record keeper”)—also provided live tweeting of events and signaled in their profile they were interested in engaging in discussions (e.g., “two-way conversations”) and providing targeted support (e.g., “help with questions”). In a similar way, @USCIwitnes offered to facilitate interactions between Holocaust and genocide survivors with “students13+.” Because content providers had the ability to customize their profile, they were able to describe themselves in ways that highlighted that their resources went beyond websites and videos, too. The information provided in the content providers’ profiles was likely useful to #sschat participants who had and unique requests for resources (see Chapter 4, Diverse Requests).

boyd (2013, p. 4) has argued that participants “consciously craft their [social media] profiles to be seen by others.” Given that the purpose of my study is to better understand what is happening in #sschat (an example of an online space for educators) to help inform and shape more formal professional development, a close examination of how participants crafted their usernames and profiles is warranted because they may help to contribute to a supportive environment. The data strongly suggests that #sschat participants (who were not content providers) also crafted usernames in unique and interesting ways. Generally speaking, the types of usernames created or chosen by #sschat participants can be divided into three broad categories: (a) some form of their real
name, (b) a professional persona, and, (c) a nickname. For instance, some participants appeared to use their real first and last name (e.g., “@ChuckTaft”), an abbreviated form (“@mseideman”), a shortened version (“@CHitch94” for “Chris Hitchcock”), or one closely related to their name (“@Chrislewis10”). In research terms, this type of username made it difficult to discern whether the account was designed for personal or professional purposes. However, when viewed in combination with the #sschat participant’s profile, it appeared that these participants—those using some version of their full name—wanted to be “recognizable” on Twitter as someone who likely would be interested in social studies education. For example, @ChuckTaft included what seemed to be possible past and present professional roles:—“8th Grade AmStudies [American Studies] teacher” and “SS Department Chair at University School of Milwaukee”—in the bio section of his profile. It is conceivable that by creating a username using his real name, he “presented” himself in a way that friends, family, and colleagues could find him; and, at the same time, signaled this account was likely designed for professional purposes given the information he posted about his role as a social studies educator.

Participants also crafted name-based usernames which appeared to reflect their professional persona. In this case, these usernames included their real name (in whole or part) in combination with other features that suggested it might have been constructed for professional purposes. For instance, participants created usernames which included titles such as Mr. or Ms. along with their surnames (e.g., @Ms_Cabiness, Mr_Dreher). The title and surnames were capitalized and there was a space (indicated by the underscore) between them. This sense of “formality” was interesting because typically Twitter users
tend be relatively “informal” and not concerned about grammar rules (e.g., capitalization). Nonetheless, the inclusion of Mr. or Mrs. before the surname mirrored the manner in which teachers are typically addressed in and outside of school by students, parents, and other community members. In a similar way, #sschat participants used a form of their real name in combination with a word easily associated with teaching (e.g., @holmsclass, @mrshistorylee) or their school (e.g., “@RJacksonNMRHS, where the “HS” can be interpreted to mean “high school” and NMR” as an acronym of the school’s name). This suggests that #sschat participants may have crafted or used a pre-existing professional persona for this affinity space (tied in some way to their real name and education roles or contexts) to communicate with colleagues (e.g., #sschat participants), and perhaps, I argue, with members of their educational community outside #sschat in other school-related spheres (e.g., students, parents).

In contrast to participants who appeared to create usernames that were recognizable to their school community and colleagues, many #sschat participants also made up usernames that did not include any personally identifiable information. Because these usernames seemed to represent some aspect of the interests they included in their profile, I considered them to be “nicknames.” By way of example, @Flipping_A_teacher may have wanted to highlight his commitment to using an instructional approach known as flipped classroom (as indicated in his Twitter profile “prepping 3rd year of #flipclass”). Other participants appeared to construct their usernames based on their sports interests (e.g., “@STLinOK” [Saint Louis Fan in Oklahoma]) and hobbies (e.g., “@TeacherRunner42”). In these examples, the participants nonetheless included profile
information that signaled their role as an educator (e.g., “World/ East Asia/APWH Teacher”). These examples suggest that #sschat participants likely appreciated the ability to customize their usernames based on how they wanted to portray themselves.

Participants also crafted their Twitter profiles in distinctive ways to reflect their professional experiences and personal interests. For example, as already mentioned, it was common practice for participants to include information about their roles in their educational institutions (see Table 4.4) as well as about their experience with technology (see Table 4.6). In addition, they provided clues about the type of teacher that they wanted to be (e.g., “Working hard to create thoughtful, engaging classroom”), the recognitions they had received in their teaching positions (e.g., “White House Champion of Change”), along with professional organizations with which they were associated and/or roles they played within these associations (e.g., “So Cal [Southern California] Social Science Association, President-Elect”). Moreover, they described how they viewed themselves as learners (e.g., “passionate learner,” “looking to grow and learn with forward-thinking educators”) and risk-takers (e.g., “loves challenges”). Some even identified potential careers they hoped to have (e.g., “Future High School History Teacher”) suggesting that they may have considered #sschat as a viable space for networking. Participants also included information about their personal lives and their families (e.g., “Father of Oliver, Ulla, & Innis. Husband”). In addition, they shared examples of their hobbies (e.g., “Runner, reader”), favorite sports teams (e.g., “White Sox Fan”), and invited others to engage with them regarding topics of mutual interest (e.g., “Will rant about my sports teams and Social Studies stuff”).
The unique manner in which #sschat participants (e.g., content providers, educators) chose to represent themselves gave the impression that they wanted to adapt social media (such as Twitter) for professional purposes. Most participants appeared to take advantage of the flexibility within the Twitter profile settings to construct their username and/or bio sections to reflect—in some way—their professional responsibilities and interests. The content providers, in particular, took advantage of the affordances inherent in social media with respect to user-generated username and profile texts that enabled them to “broadcast” information about the services they provided for students, educators, and the public at large. Participants chose a wide variety of ways to represent themselves, largely by means of providing information about their roles and interests reflecting their personal interests and professional lives.

More research is needed to better understand the extent to which the ability to make personal choices about how to portray one’s self matters when engaging in professional development settings with people in virtual settings. Past studies have reported issues related to trust in online spaces for educators and have found that opportunities for face-to-face interactions may increase a sense of sociability (Matzat, 2012, 2010; Tseng & Kuo, 2014). It is conceivable that being able to create profiles that reflected #sschat participants’ personal and professional lives may have helped them feel comfortable interacting in a space that does not involve face-to-face contact because that feature provided an opportunity to access a window into the personal and professional lives of others in the affinity space. Hagel and colleagues claim that name badges act as “ice breakers” (2012, p. 104) at conferences. It could be argued that a participant’s
Twitter username and profile served a similar purpose by broadcasting information that might be of mutual interest to others viewing it. These data raise questions about how online identities (e.g., usernames, profiles) affect how participants and their contributions (e.g., comments, resources) are viewed by others (e.g., educators, parents, content providers).

**Engaging Simultaneously with Students and Participants**

A close analysis of the data revealed that #sschat participants leveraged the affordances within Twitter to interact with their students within the #sschat affinity space. Other studies have shown how college professors have used social media with their students (Carpenter, 2015; Hsieh, 2017) and high school teachers have used it with their students as they pretend to be historical figures (Krutka & Milton, 2013). Data from my study suggest that social media can be adapted for students and teachers to interact within the same space to share resources and engage in discussions. As illustrated in Table 5.3 below, participants created usernames and/or profiles that showed their intention to use Twitter for professional purposes, including interacting with their students. For instance, @MrAndersonGov’s account was created for “Class updates, news, and extensions of the classroom from Mr.Anderson’s 9th grade Gov/APGov classes” and @mrs_lapietra was an account to “Follow for updates on Gov Hours and Current Event Articles.”
Table 5.3

#hsgovchat Participants’ Use of Twitter to Engage with Students

<table>
<thead>
<tr>
<th>Twitter Profile</th>
<th>Tweet Inviting Students via Class #Hashtag</th>
<th>Tweet Using Class #Hashtag</th>
</tr>
</thead>
<tbody>
<tr>
<td>@JustinChristen</td>
<td>For my students: Remember to use #hsgovchat AND #govchristensen for the Dem Debate. And remember the guidelines!</td>
<td>Great background piece for students. #hsgovchat #govchristensen</td>
</tr>
<tr>
<td></td>
<td>@JustinChristen AP Gov teacher, dept chair, &amp; baseball coach. Co-founder of #hsgovchat at 6-7 pm PST on Sundays. Archive: <a href="https://storify.com/JustinChristen">https://storify.com/JustinChristen</a> Let's use Twitter for good. San Francisco, CA linkedin.com/in/drjustinchr... Joined September 2011</td>
<td></td>
</tr>
<tr>
<td>@mrs_lapietra</td>
<td>All you watching at debate watch parties or home get involved with the Debate tonight! Tweet #apLPgov and #hsgovchat</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>Follow for updates on Gov Hours and Current Event Articles. UHS Gov/Econ Teacher #apLPgov Iowa Joined July 2010</td>
<td></td>
</tr>
<tr>
<td>@MrAndersonGov</td>
<td>The @TheDemocrats are debating tonight 7:30. Students are invited to tweet observations/insights using #hsgovchat and #vmsgov IMO ... One of the worst answers I've ever heard in a debate from any candidate of either party. #hsgovchat #vmsgov <a href="https://t.co/GSwXOpWPDu">https://t.co/GSwXOpWPDu</a></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Class updates, news, and extensions of the classroom from Mr. Anderson’s 9th grade Gov/APGov classes. #vvmsgov #hsgovchat Valley View MS, Edina MN USA Joined December 2010</td>
<td></td>
</tr>
<tr>
<td>@Goodsonshistory</td>
<td>Don’t forget to watch the #DemDebate at 8:00. Use #EHSGood #hsgovchat to tweet observations during the debate. <a href="http://t.co/BF2JdrL9sq">http://t.co/BF2JdrL9sq</a> A1: It seems Federalism is a distant concept these days. What is really left to the states anymore? #hsgovchat #EHSGood</td>
<td></td>
</tr>
<tr>
<td></td>
<td>AP Gov’t and Politics and AP Microeconomics teacher at EHS. Technology in Education. Check out my website <a href="http://www.bgoodson.hs.weebly.com">http://www.bgoodson.hs.weebly.com</a> #EHSGood Enterprise, AL bgoodson.hs.weebly.com Joined August 2009</td>
<td></td>
</tr>
<tr>
<td>@ramosclass</td>
<td>For my students: Remember to use #hsgovchat AND #alhsgov for the Dem Debate. And remember the guidelines!</td>
<td>Hillary Clinton doesn’t support revival of Glass-Steagall Act <a href="https://t.co/mfO2WU700e">https://t.co/mfO2WU700e</a> #alhsgov #hsgovchat</td>
</tr>
<tr>
<td></td>
<td>History teacher at Alta Loma High School. Political/CP-Span geek &amp; proud of it! Flipping my history classes:) California, USA goo.gl/979WA2 Joined July 2012</td>
<td></td>
</tr>
</tbody>
</table>

A close analysis of the data revealed that these five #hsgovchat participants used the class/school #hashtagsin two ways: (a) to report on breaking news/current events and
2) engage in live-tweeting events. For example, the unexpected resignation of the Speaker of the House (Boehner) at the time of my study (September 25, 2015) led to multiple tweets posted on this topic over the course of several days. These included new “stories” as they appeared on the internet and links to resources that provided background information. As illustrated below in Figure 5.3, one #hsgovchat participant (a teacher) shared three tweets about this topic with his colleagues and his students at the same time by including both hashtags in the tweets (e.g., #hsgovchat for the professional group and #govchristensen for his class at school). The first tweet was a link to a tweet that began “Breaking News,” and told how the anticipated resignation was imminent. Given the significance of this event, it is easy to understand how using the same Twitter account to broadcast information to his colleagues and to his students at the same time was an important time-saving feature of social media.

| Tweet 1: Wow. #hsgovchat #govchristensen [https://t.co/X9x2Qf7ZMG](https://t.co/X9x2Qf7ZMG) |
| Tweet 2: Great background piece for students. #hsgovchat #govchristensen [https://t.co/8i42cB0CwN](https://t.co/8i42cB0CwN) |
| Tweet 3: Split in GOP on display in responses. #hsgovchat #govchristensen |
| Bush: [https://t.co/YAWuXEJ4Mu](https://t.co/YAWuXEJ4Mu) |
| Rubio: [https://t.co/zKxlvMtnAC](https://t.co/zKxlvMtnAC) |

*Figure 5.3.* #hsgovchat participant uses one Twitter account to broadcast information to both students and colleagues.

In the case of the second tweet, the #hsgovchat participant shared a link to an article written by a political correspondent that provided contextual information and a detailed analysis of the factors that contributed to Boehner’s resignation. His comment, “great background piece for students,” likely served two purposes. On one hand, it
alerted students—particularly his students (e.g., “#govchristensen”)—that the suggested article (via the link) was likely useful to understand the “history” (context) that led up to the resignation even though his tweet did not say specifically “for my students.” On the other hand, it provided a recommendation for #hsgovchat participants (e.g., teachers) looking for a “student-friendly” resource (e.g., “Great background piece for students”) that explained the relevant circumstances that occurred prior to this event by someone, who was not only an AP Gov teacher and department chair, he was also sharing this same article with his students (#govchristensen).

The third tweet drew attention to a “teachable moment” that was made possible by Boehner’s resignation (e.g., examining an issue from multiple perspectives). In this case, two prominent people (e.g., Bush, Rubio) in the same political party (Republican) viewed the Boehner departure very differently (e.g., “Split in GOP”). It is easy to argue that this was a useful resource for both his students and #hsgovchat participants, who were interested in learning about how different people responded to the event.

These data suggest that affordances within Twitter enabled participants to save time and energy because they could post a single tweet (with two #hashtags) and share the same information with their colleagues (e.g., “#hsgovchat”) and students (e.g., “#govchristensen”) simultaneously. Further, the inclusion of the class #hashtag (#govchristensen) highlighted the fact that this participant (an experienced teacher) was sharing the same internet links with his students, signaling to other #sschat participants they were probably worthwhile resources.

Participants—who were also teachers—appeared to create unique #hashtags to
interact in real-time (synchronously) with their students, too. During the time of my study, #hsgovchat participants were encouraged to invite their students to participate in live-tweeting the democratic and republican primary debates. Participants “customized” the generic #hsgovchat invitation tweet to the democratic debate by including the #hashtag associated with their course: #apLPgov (see Figure 5.4). The message, “get involved with the Debate tonight,” followed by “Tweet” was a suggestion for the students to do more than just passively watch the debate. In the case of her students, this was an invitation to interact with people they most likely knew (e.g., “#apLPgov”) as well as engage with a larger audience interested in government and politics (e.g., “#hsgovchat”).

This was interesting for three reasons. First, the teacher (@mrs_lapietra) encouraged her students to take on an active role and interact with people beyond those with whom they shared a physical space (e.g., “debate watch parties”). Second, by suggesting that students include #hsgovchat in their tweets, she provided a means by
which the students could share their perspectives and analyses with a larger audience. At the same time, this action provided an opportunity for her students to be exposed to ways of thinking that might be different from their own. Of course, @mrs_lapietra’s suggestion to her students to include #hsgovchat—a space comprised of participants interested in social studies education—likely limited their exposure to comments that were posted in a somewhat “sheltered” environment given civil discourse was the norm; nonetheless, this space did provide the students the opportunity to engage in an authentic political discussion with real people from around the United States. Third, @mrs_mrs_lapietra’s recommendation for her students to include #hsgovchat in their tweets had the effect of bringing new voices to the #hsgovchat audience.

#hsgovchat teachers seemed to leverage features in Twitter to create a “space” where they interacted with their students outside of the traditional classroom, likely as a way to provide authentic experiences designed to help them become part of an active, informed citizenry. This space was different from a typical study session or afterschool help class/program where students and teachers meet at a pre-determined time and place to review content already addressed in class or as part of “remedial” sessions in response to poor test scores. Further, it was not the same as setting up a “virtual” classroom environment with “special” teacher and student accounts using software—only found in school settings—designed to “simulate” social networking experiences (Krutka & Milton, 2013). Likewise, it was not a situation where teachers assigned students to assume the identities of people from the past and “pretend” to interact with one another using current day social media (see Krutka & Milton, 2013). Rather, the types of interactions that
occurred in this space enabled the students to understand how social media (e.g., Twitter) could be helpful in becoming aware of the wide range of factors/implications that come to light as newsworthy events unfold. Moreover, the experience of “following” their teacher as he/she gathers information to make sense of the impact of the event, could well have opened students up to the diversity of news “stories” and highlighted an array of perspectives on this topic. In this regard, this experience demonstrated two important lessons. First, the steps a teacher might take to be an “active, informed” citizen. And, second that a “current” event is not a single story that can be captured in one article. In the case of Boehner’s resignation, #sschat provided a way for students to be “apprenticed” in the manner in which their teachers went about “making sense” of newsworthy events as they evolved over time without telling them what to think or what was the “right” answer.

In the case of live-tweeting the presidential election primary debates, the #sschat affinity space provided opportunities for students to engage with authentic audiences (e.g., people outside of their class/school) regarding topics that had relevancy to their lives (e.g., presidential elections). It must be said that while these experiences seemed to have been designed by teachers for students to engage in authentic ways, it important to recognize that they occurred in a “safe” environment where teachers were present to foster appropriate behaviors. Data from my study suggests that selecting social media (or some other format that has a low barrier to participation) provides a means by which educators and students can engage simultaneously in the same experience as a way to demonstrate practices associated with using social media as a tool in support of civic
engagement. In the case of the #sschat affinity space, there were two specific opportunities (e.g., breaking news, live tweeting) for students to learn by observing the behaviors of #sschat participants.

Gee and Hayes (2012) frequently have critiqued schooling because students “are rarely exposed to the discussions and practices of more advanced learners” (p. 12). Affinity spaces are designed so that “newbies” and more experienced participants engage in the same space and learn from one another. For example, researchers found that when teenagers received feedback from authentic audiences (e.g., FanFiction sites), those experience was likely to have a greater influence on the quality and quantity of their writing as compared to deadlines and high-stakes assessments they were required to complete in school (Lammers et al., 2014). The use of social media by #hsgovchat participants—which appeared to be easily manipulated for professional purposes—provided an opportunity for students to learn from their teachers in an authentic environment while at the same time provided a chance for the teachers to learn about the challenges students may have in engaging in online political discussions with students who have different perspectives by interacting with them in the same space.

As described above, the use of social media that was adapted for professional purposes appeared to promote a low barrier to participation in the #sschat affinity space. Participants appeared to apply practices associated with using Twitter to communicate with family and friends to sharing information about what they were doing that related to social studies education. The various ways participants appeared to portray their multi-dimensioned “professional selves” which involved crafting unique usernames and
profiles seemed to reflect both their personal and professional interests. The implications of #hsgovchat participants who took advantage of the affordances within social media to create a space in which they could *interact* with and *apprentice* their students in behaviors that related to becoming active, informed citizens. In the next section, I discuss how affordances within social media were leveraged to attract participants and encourage participation.

### Attract Participants and Encourage Participation

A close analysis of the data suggests that social media and their affordances were leveraged in intentional ways to attract participants and encourage participation. This action appears to support Hagel and colleagues’ (2012) contention that it is necessary to “attract” individuals who bring diverse insights and experiences to pull\(^9\) environments. Researchers of online spaces for educators have studied how and why educators participate in these types of spaces (Carpenter & Krutka, 2015; Forte et al., 2012; Hur & Brush, 2009; Krutka & Carpenter, 2016; Ranieri et al., 2013; Visser et al., 2014), how to cultivate knowledge sharing and trust (Booth, 2012), how to connect formal and informal learning (Dabbaugh & Kitsantas, 2012), the type of interactions in these spaces (Lisboa & Coutinho, 2013), barriers related to sociability (Matzat, 2010, 2012), how technology is leveraged to support professional learning (Sari & Tedjasaputra, 2013) and to prepare teachers (Warburton, 2009), how communities of practices are created and maintained (Thang et al., 2011), the social nature of online communities of practice (Tsai, 2011;

\(^9\) A pull environment, as discussed in Chapter 2, is one that attracts people and resources who can leveraged for “just in time” events. A push environment is designed based on the notion that we can “predict” what is needed in advance and provide training for those purposes.
Tseng & Kuo, 2014), and how they are used in higher education (Moran, Seaman & Tinti-Kane, 2011), in pre-service programs (Pilgrim & Bledsoe, 2011), teaching elementary science (Tsai et al., 2010), in an online induction program (Zuidema, 2011), by English teachers (Rodesiler, 2014; Rodesiler et al., 2014; Pino-Silva & Mayora, 2010), and World Language educators (Wesely, 2013). However, little is known about how individuals—who engage in these spaces voluntarily—are attracted to try new spaces. Given my research question asks what can be learned from online spaces for educators, such as #sschat, that can help inform and shape more formal professional development experiences, I have chosen to take a “deep dive” into exploring the intentional “moves” made by #sschat participants to attract others who are likely to bring and (are inclined to) share valuable insights and experiences to the affinity space.

In this section, I begin by discussing how #chat invitations were created and broadcasted to a wide range of networks as a way to attract participants. A #chat invitation is a specially designed tweet created for the purpose of broadcasting information about an upcoming synchronous #chat session (see Figure 5.5 below). In what follows, I explore how specific affordances were leveraged to target groups and individuals who were likely to be inclined to share their ideas and experiences with the #sschat affinity space. I examine how two stable websites were able to encourage participation by providing access to the various portals that promoted interactions among participants as well as opportunities for different types (levels) of participation on an “individual” basis.

Attracting Participants
The data suggest that the co-leaders/moderators intended their #chat invitations to be noticeable and recognizable. Noticeable in that they were designed to set them apart from tweets that were sent out to other synchronous #chats. And, recognizable in that they would be viewed as representing a specific #hashtag group within the #sschat affinity space. All of the #chat invitations that appeared during my 30 day study were larger and more colorful than other tweets that were posted to the #sschat affinity space during the same time period. As a point of comparison, Figure 5.5 includes two #chat invitations that were posted during the time of my study: one for #hsgovchat session (left column) and the other for #TeachWriting #chat (right column). During the one month of my study, all of the #chat invitations that were posted to Twitter were created as “graphics” that included some type of image in combination with text—comprised of different colors, sizes, and fonts—as a way to provide logistical information about when a specific #chat session was to take place and the focus of the session (see Figure 5.5 below). Because the invitations were in a graphical format they were able to include additional text beyond the 140 character limit on Twitter. As a result, the #sschat affinity space invitations were much larger than the traditional invitation tweet (see tweet example in right hand column of Figure 5.5 below) and took up more space on the viewer’s screen.

\[20\] #chat invitations to the weekly #sschat synchronous sessions were also posted on the #sschat Facebook page.
The data also indicated that the #engsschat, #hsgovchat, and weekly #sschat invitations included specific features that were intended to be recognizable as representative of each of the respective #hashtags associated with the #sschat affinity space. These features included a specific color scheme (text and background) and image associated with the #hashtag. For example, #hsgovchat invitations appeared to evoke a U.S. patriotic color scheme by using turquoise blue text for the logistical information, red text for information about the specific #chat topic on white background (see Figure 5.5 above). Navy blue text was used for all the weekly #sschat invitations and black background with white text was used for all #engsschat invitations I collected over the time period of my study. And, unlike a traditional tweet, all of the #sschat affinity space invitations used text that was different sizes, fonts and colors; likely done to draw the reader’s attention to specific information on the invitation (e.g., red text for the upcoming’s chat topic).
It is reasonable to assume that the “standard” graphic that appeared on every #engsschat, #hsgovchat, and weekly #sschat invitations respectively (during the time of my study) was intended to serve as a logo in order to make the invitation instantly recognizable as belonging to one of the specific #hashtags associated with the #sschat affinity space. For instance, the weekly #sschat logo was comprised of a navy blue top hat, its slogan promoting its intended global reach (e.g., “connect globally and teach locally”), and a “graphic” version of its name (see Figure 5.6 below). The #engsschat logo featured two gender-neutral people pushing interlocking puzzle pieces together, likely emphasizing its desire to bring participants from two Twitter #chats (i.e., #engchat and weekly #sschat) together to discuss topics of mutual interest. And, the logo for #hsgovchat appeared to be a header with the logistical information in the center, flanked by two Twitter icons (birds). The #hsgovchat and #sschat logos also appeared on other portals associated with each of the respective #hashtags (e.g., websites, Facebook site).
<table>
<thead>
<tr>
<th>Chat name</th>
<th>Specific #Chat Image</th>
<th>Image Description</th>
</tr>
</thead>
</table>
| #sschat           | ![Image](image1)     | - Background was white  
- Top hat, #sschat and logo in navy blue  
- “Connect globally & teach locally” (motto) |
| #engsschat        | ![Image](image2)     | - Background was black  
- Text was white  
- 2 interlocking puzzle pieces (#engsschat & #sschat)  
- People gender-neutral in same color  
- “Combined #sschat and #engsschat” (motto) |
| #hsgovchat        | ![Image](image3)     | - Background was white, turquoise blue text for logistical information & red text for topic  
(patriotic colors)  
- 2 Twitter symbols  
- Header included day of the week, date, & time posted in two time zones |
| #worldgeochat     | ![Image](image4)     | - Image was different each week and reflected either a geography concept or the #chat topic  
- Clever play on words (“grab a seat”) |

*Figure 5.6. #Chat images that were used to represent each of the #hashtags associated with the #sschat affinity space along with respective description.*

A close analysis of all the #chat invitations that were posted during my one month
study (for #hsgovchat, weekly #sschat, and #worldgeochat) revealed that the specific imagery that was created and/or selected each week to be used on the invitation was likely intended to symbolize or evoke some aspect of the specific #hashtag or the upcoming #chat topic. By way of example, #worldgeochat, included (generic) geographic images such as old maps, a Google Earth image of the world, a landscape (see Figure 5.6 above), and so forth on their #chat invitations. Other times, invitations seemed overtly designed to reflect the specific upcoming #chat topic by using text in combination with imagery as a way to possibly spark interest on the part of the viewer by showcasing a message with multiple meanings (see Figure 5.6 above). On one hand, the image and text provided useful information about the #chat topic. On the other hand, it suggested a sense of cleverness on the part of the creator who used word play or some other literary device to draw the attention of the viewer. For instance, the #worldgeochat invitation about differentiated instruction in geography included a photograph of a body of water with six different colored Adirondack chairs along with text that said, “Grab a seat.” In a similar way, the use of four different invitations for the synchronous #chat on differentiated instruction—each with a unique image that represented a different teaching approach (e.g., tic-tac-toe task sheet, toolbox, puzzle pieces)—was likely done to have “fun” by demonstrating there are multiple ways to convey the same idea.

The #chat invitations also appeared to be designed to attract the attention of individuals beyond those interested in social studies education. In these situations, the invitation included recognizable images that were associated with the guest #chat facilitator such as the cover of book written by a New York Times best-seller author and
the logo that appears on the webpage of the weekly radio show about constitutional issues (see Figure 5.5 above).

The use of the same style of invitation for every #chat session suggests that there was intention to “brand” these dedicated sessions in a way that would set each one apart from the other hundreds of educational Twitter #chats that currently exist. It is easy to argue that the #chat invitations signaled that the #sschat affinity space was “special” in that it was comprised of participants who were willing to expend the extra effort to design unique, often thought-provoking invitations associated with the #chat topic through the inclusion of distinctive imagery and word play. Moreover, the use of recognizable images associated with the guest #chat facilitators broadcasted that the #sschat affinity space was one in which “experts” in the field wanted to engage. Considering all these ideas together suggests that the co-leaders/moderators leveraged affordances within social media to capture the interest of participants already familiar with #sschat as well as attracted first time visitors to the #chat sessions.

In the next subsection, I discuss how social media affordances were leveraged to attract specific groups and individuals to the #sschat affinity space. Because these actions primarily served the same purpose as the #chat invitations, I will hold off on discussing the significance of both sets of actions until after I have presented the data in the next subsection.

**Targeting Groups and Individuals**

A close analysis of the data indicated that co-leaders/moderators and participants leveraged various affordances within social media to extend the reach of the #chat
invitations to a variety of online networks as a way to attract new participants and remind regular participants of upcoming #chat sessions.

![Image of Facebook post with #sschat and #engsschat invitations](image.jpg)

**Figure 5.7.** #sschat co-leader posted weekly #sschat and monthly #engsschat invitations to the #sschat Facebook page and added additional information; likely done to attract new participants.

Co-leaders/moderators did this by posting images of the invitation tweets to the #sschat Facebook page for each weekly #sschat and monthly #engsschat session that occurred during the time of my study (see Figure 5.7 above). Considering this from a technical perspective, the ability to use the same image (taken from the invitation tweet) for Twitter and Facebook #sschat sites saved time and appeared to contribute to developing brand recognition of the #sschat affinity space. From a strategic perspective,
this action appeared to be a useful approach to promoting participation in other portals within the #sschat affinity space. It is reasonable to assume that some #sschat Facebook followers might want to participate in an upcoming weekly #chat because it would provide them with the opportunity to interact in real-time with participants who shared similar interests in social studies education, particularly when the #chat facilitator was a well-known expert in the field (e.g., New York Times best-seller author).

In addition, the retweet feature, used by co-leaders/moderators and participants, extended the reach of the #chat invitations in two ways. First, it increased the likelihood that #chat invitation would be seen by both first-time and regular participants because every time it was retweeted it appeared on the top of the daily #hashtag feed. As a point of illustration, the #chat invitation tweet for the Changing Views of Heroes weekly #sschat session was retweeted 28 times over seven days. During this time period, there were 2560 tweets posted to the #sschat daily Twitter feed (webpage) starting with when the original #chat invitation tweet was posted until the actual weekly #chat began.

Within hashtag spaces that had a prolific number of tweets on a given day—such as #sschat—the retweet feature served an important function by increasing the frequency that the #chat invitation appeared at top of the #sschat Twitter feed. In this case, (on average) the retweeted #chat invitation appeared on top of the feed once every 100 tweets.

Second, the use of the retweet feature by participants resulted in the #chat invitation being broadcasted to a wide range of other online networks. As a way to gain a sense of its reach, I have identified the number of “followers” of the first five of the 28
people who retweeted the invitation for the upcoming *Changing Views of Heroes* #chat session (see Table 5.4).

Table 5.4

<table>
<thead>
<tr>
<th>Person</th>
<th>Number of Followers</th>
</tr>
</thead>
<tbody>
<tr>
<td>TXSocialStudies</td>
<td>379</td>
</tr>
<tr>
<td>Jedikermit</td>
<td>2036</td>
</tr>
<tr>
<td>Mrpotter</td>
<td>2176</td>
</tr>
<tr>
<td>Team5SocialSt</td>
<td>133</td>
</tr>
<tr>
<td>Laurie_synder</td>
<td>1439</td>
</tr>
</tbody>
</table>

What can be gleaned from Table 5.4 above is that retweeting the invitation tweet by ordinary participants—who are not in *formal* leadership roles within this space—had the potential to reach thousands of people who are already online using Twitter and likely to have some similar interests given they have self-selected to be followers. As such, these followers could be potential future participants with ideas and experiences that are likely to be different from those that are already part of the #sschat affinity space. And, because #chats take place in an online environment, sending the invitation tweet to thousands of people (see Table 5.4) was not a problem because there was no limit to the number of people who could attend. In contrast, in schools there is a top-down hierarchical environment where administrators often decide *who* can attend a professional development or assign educators to work in certain groups based on such things as their content expertise or years of experience (OCED, 2013, Tucker, 2011). Likewise, decisions about the number of people in face-to-face settings are often restricted based on
the available physical space.

The data also showed that the co-leaders/moderators and participants leveraged affordances in social media to invite particular individuals to specific #chat sessions. The “@” symbol in Twitter was used to target specific individuals who were deemed to have valuable contributions (e.g., “We would love to have your insights, Kristi”) or as a way to remind multiple participants at the same time (e.g., “I forgot to remind @le_reitz @MoxRees & @JPiekarz about #worldgeochat. If you're free - join in now!”).

I found the following tweet interesting because it encouraged other participants—not in formal leadership positions—to use the “@” symbol to invite people they knew to join the #chat session that was about to begin.

I'm counting about 15 people getting ready for #worldgeochat Bring a friend, reach out+tweet @ someone in your #pln to join the conversation

This tweet emphasized the participatory nature of this space by encouraging participants to invite people (i.e., “tweet @ someone”) with whom they wanted to engage in discussions regarding topics related to social studies education. The recommendation to “bring a friend” who was someone in “your #pln [personal learning network]” underscored the notion that bringing new people—who were interested in learning—into the conversation would be welcomed. To be sure, all of the examples described in this section that included the “@” symbol highlighted the notion that digital technologies were leveraged to support the “social” nature of learning by targeting individuals—who were perceived as valuable contributors—to participate in upcoming #chats.

Educators have reported they have little or no say about the types of school- or
district-wide professional development experiences they are required to engage in (Darling-Hammond, 2015; OCED, 2014; Tucker, 2011). Further, studies have found that educators are not provided time to engage in collegial settings that are supportive environments which promote risk taking and collaboration (Darling-Hammond, 2015; Wei et al., 2010). It is conceivable that allowing educators to have some choice in regard with whom they interact may be useful in promoting collaborative discussions in which they feel comfortable considering new ideas. In this way, digital technologies and their affordances (e.g., retweeting, “@ someone”) helped to create a participatory environment because it facilitated a distributed approach to deciding who would be invited to participate in discussions related to social studies education.

The data from my study suggest that intentional efforts were made by both the co-leaders/moderators and the participants of the #sschat affinity to attract individuals (new and regular participants) to the synchronous #chat sessions. I found this interesting because Hagel and colleagues (2012) assert that it is necessary to continually attract people who bring diverse insights and knowhow to a group as a way to maintain the value of an online space. However, this action has to be done in a systematic way because attracting random people who do not either share or respect the shared passion or understand the practices of a space may not be able to contribute in meaningful ways (cf. Gee, 2005, 2007; Gee & Hayes, 2010, 2012; Hagel et al., 2012). #sschat participants appeared to take advantage of “Goldilocks conditions” that were made possible by affordances within social media. “Goldilocks conditions” refer to having the right combination of variables present that cause an intended result to happen. For instance,
posting large, colorful #chat invitations multiple times (*vis a vis* the retweet feature) to the #hashtags associated with the #sschat affinity space, including the #sschat Facebook page, increased the odds that it would be viewed by people interested in social studies education. Likewise, targeting the followers of #sschat participants appeared to be a useful way to attract people who were likely to be inclined to engage in online spaces, especially if they recognized the “brand” as being associated with the #sschat affinity space. As “weak ties” (Wellman et al., 2003, n.p.) to the affinity space, these potential participants likely brought diverse experiences that might be the source of a future serendipitous encounters. In a similar way, the #chat invitations that broadcasted sessions about topics that involved well-known guest #chat facilitators and/or were multidisciplinary (e.g., *Smartphones in the Classroom*) may have attracted people who brought ideas from other domains that could be adapted by participants interested in social studies education. The goal, according to Hagel and colleagues (2012) is to “attract people and resources to you that are relevant and valuable, even if you were not even aware before that they existed” (p. 9).

Social media has contributed to the type of environment that allows individuals to develop and maintained relationships with a larger number of people. Previously, Seely Brown and Adler (1995) argued that in an analog world, most people were limited in the number of relationships that they could maintain (approximately 50 people). In a digital world with the internet and social media, Hagel and colleagues (2012) posit that people are able to develop and maintain relationships with a larger number of people. While the

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21 In this scenario, a serendipitous encounter occurs when there is an unexpected encounter with someone who had information that is useful.
relationships may not be the same with regard to the depth of the interactions, it is possible for them to be more frequent. In addition, the configuration is different. Social media affords the opportunity to move beyond a “one-to-one” dynamic to a more collaborative environment. Bringing more people into the affinity space increases the opportunity to gain resources—in the form of insights and experiences—and increase likelihood for serendipitous encounters.

Central Hub

As a reminder, during the time of my study the #sschat affinity space was comprised of multiple portals, including four hashtag spaces (daily feeds and weekly #chat sessions), the #sschat Facebook page, two websites (i.e., sschat.org, hsgovchat.blogspot.com/), the #worldgeochat Google Doc, the #hsgovchat Storify page along with sites associated with #sschat participants. A close analysis of the data revealed that the sschat.org (#sschat) and hsgovchat.blogspot.com (#hsgovchat) websites played an important role in the #sschat affinity space because they were stable websites that acted as a central hub by providing useful information about the affinity space as well as a means to access the portals. In this section, I intend to explore four aspects of the two websites that were designed to attract participants and encourage participation: (a) about the affinity space, (b) awareness of and access to multiple #sschat portals, and,

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22 As stable websites, the information posted on these sites remained “relatively” the same over time. In contrast, the websites designed to facilitate interactions (e.g., #sschat Facebook, #hsgovchat, #worldgeochat, #sschat) among the #sschat participants were dynamic given they changed daily as new comments were posted making it more difficult to find information that appeared several days, weeks or months earlier.

23 To avoid confusion during the discussion in this section, I use “#sschat website” in reference to sschat.org and “#hsgovchat website” in reference to hsgovchat.blogspot.com, acknowledging that participants within the #sschat affinity space may visit both websites, one website or neither website.
(c) access to diverse forms of participation.

**About the #sschat affinity space.** In this section, I am primarily concerned with examining the type of information that was posted on the websites that may have attracted new participants to the #sschat affinity space. During the time of my study, the #sschat website included a specific webpage that provided a brief history of the #sschat affinity space, a clustr map illustrating the participants’ location, and a digital badge in recognition of being a finalist in the category of Best Educational Use of a Social Network (see Figure 5.8 below). In addition, each website had information about its target audience and goals.

This information was interesting for several reasons. First, it can be argued that since participation was voluntary, it was necessary to broadcast (advertise) how the #sschat affinity space could meet the needs and interests of its participants. For instance, the literature tells us that participants appreciate the diverse perspectives that are commonly found in online spaces for educators (Duncan-Howell, 2010; Carpenter & Krutka, 2014; Hur & Brush, 2009; Wesely, 2013). With that in mind, it is likely the global map that showed participants came from more than 200 countries was likely included to draw attention of first time and other visitors who were interested in engaging with others who had diverse experiences. Second, being recognized as a finalist for a global award that sought to acknowledge websites that demonstrated the ability to use social media to support diverse learners suggests that #sschat was a valuable space worth visiting. Third, providing a brief history of the space was useful because it described its grassroots approach and described the different happenings over the past seven years.
along with multiple transitions in leadership. This narrative speaks to its resilience and the value of a participatory environment. These two factors were likely to be appealing to new participants who were looking to engage with others voluntarily regarding topics related to social studies education.

Finally, the information posted on each of the websites about their target audience and goals was likely to be useful in aiding newcomers gain understanding of the purpose of the affinity space and whom they sought to attract (see Figure 5.9 below).
For instance, the mission statement on the #sschat website clarifies that this space was designed for anyone interested in social studies education (e.g., “dedicated social studies educators and enthusiasts”). Participants did not need to be educators. This was important for people representing government agencies, non-profit organizations, and for-profit companies who wondered if they would be welcomed to participate in the #sschat affinity space. In contrast, the #hsgovchat site made it clear that the information on that site was geared towards high school teachers. Both sites were interested in promoting a collaborative approach (e.g., “ongoing PD from each other,” “collaboration that works to challenge & support others in personal and professional growth”) which was likely to be important to participants who voluntarily chose to participate in the #sschat affinity space.

**Awareness and access to portals.** The websites appeared to serve an important purpose because they provided awareness of and access to the various portals that supported interactions within the #sschat affinity space. They did this in three ways: (a) by posting a list of the synchronous weekly #chats, (b) by providing embedded links to
the daily #sschat Twitter feed and #sschat Facebook page, and, (c) by creating a webpage for information about the unconference.24

There were several reasons why the list of synchronous #chats was likely viewed as valuable information. As illustrated in Figure 5.10 below, this list brought awareness of the choices participants had to engage synchronously with others interested in social studies education. Having access to discipline specific synchronous #chat discussions was important because studies have shown that teachers who are the only teacher of a specific subject in a school have felt isolated (Borko et al., 2009; boyd & Ellison, 2007; Dede et al., 2008; Killion, 2013; Lieberman & Pointer-Mace, 2010; Schlager et al., 2009; Siemens & Conole, 2011; USED, 2010b). This list demonstrated that #sschat participants had options to interact with others interested in the same social studies discipline (e.g., US History, World geography).

Figure 5.10. A list of synchronous weekly #chats with logistical information and target audience.

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24 An unconference is a free, participant-driven event. The agenda is created at the start of the event based on the participants’ interests. Participants share ideas and experiences in an informal manner.
This list also included logistical information about when it occurred (e.g., “Join #worldgeochat every Tuesday at 9PM EST”). The data showed the day of the week and time of day appeared to be an important factor regarding participation. For example, participants reported they had various conflicts that made it difficult to participate in the synchronous #chats on particular days of the week (e.g., “Been trying to join #worldgeochat more regularly. Schedule challenging for Tuesday evenings”). In addition, the time the #chat occurred was often problematic because of parental responsibilities (e.g., “6 more weeks of child soccer practice during this time…Hate missing so much”) and time zones (e.g., co-moderator’s tweet to participant from Australia “I wish we could schedule #worldgeochat so that Ts [teachers] from all over the world could be involved!”). The list of synchronous #chats provided alternatives for participants who were looking for #chats that occurred on specific days of the week or during a specific range of time.

I was surprised by the embedded feeds for the daily #sschat Twitter feed and #sschat Facebook page that appeared on the #sschat website (see Figure 5.8 above) and the daily #hsgovchat Twitter feed appearing on the #hsgovchat website. The data from this study did not address the choices that were made about what was included on the websites. However, it was interesting to consider because the embedded Twitter feed on the #sschat website had a place to “Compose New Tweet” which suggests that the website designer may have anticipated that participants might use this feature to not only view, but also submit tweets to the #sschat daily Twitter feed. While it could not be ascertained from this study if/how participants viewed these features, my experience has
been that these embedded feeds serve as a useful way to view the tweets (in real-time) and access the links that were being posted on #hsgovchat and #sschat (Twitter feeds), particularly in places where social media sites were blocked, such as schools.

The #sschat website had a separate webpage where information about the #sschat affinity space unconference was posted. This was likely useful to participants who wanted to know if there were planned opportunities for face-to-face encounters and when they took place\(^{25}\). The webpage included photographs from the previous unconference and information about what to expect and how to sign up to participate. Previous studies have found that educators have appreciated the opportunity to connect in face-to-face settings because they believed it led to an increased sense of trust (Matzat, 2010, 2012; Sari & Tedjasaputra, 2012). The web designer may have devoted a separate webpage to the unconference\(^{26}\) as a way to emphasize the “social” aspect of the #sschat affinity space. Data from my study showed that participants were looking forward to connecting in person and having an opportunity to interact in a face-to-face setting (e.g., “Let's organize an NCSS [National Council for the Social Studies] happy hour for #sschat folks in NoLa [New Orleans]. Be fun to talk in more than 140 chars. Venue?”).

**Diverse forms of participation.** In the next section, I explore the types of experiences #sschat participants had when they engaged in synchronous and asynchronous discussions. In this subsection, I examine how digital technologies were leveraged to encourage participation in diverse ways.

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\(^{25}\) This was an event that took place only once per year at a national social studies conference.

\(^{26}\) The 2015 unconference took place one month after my study ended. Although the #sschat unconference webpage was not updated, #sschat co-leaders posted “a teaser” photograph in anticipation of the event.
The two websites provided a variety of opportunities for participants to become involved with the weekly #sschat and #hsgovchat portals.

Figure 5.11. Posting technical and practical information regarding the synchronous #chat sessions.

For example, there was an article posted on the #hsgovchat website (see Figure 5.11 above) that appeared to provide support for newbies unfamiliar weekly #chat sessions in terms of “technical” information about how to participate in a Twitter #chat as well as “practical” information about what to expect during a #chat session. The use of hypertext simplified the process to gain access to the article. Given it was a “how to” article (e.g., *Everything You Ever Wanted to Know About Twitter Chats but Were Afraid to Ask*), it is easy to argue the hypertext likely served a valuable function of removing obstacles and saving time (e.g., no need to search the internet to find the article).
On the #sschat website, there was a question that asked “Want to write a blog post for a global audience?” with a link to submit a blog post. Similarly, one of the series of questions written on the #hsgovchat website (along with responses) asked “Who writes for this blog?” (see Figure 5.12) and the response “You!”, along with some suggestions for topics (e.g., “successes, failures, lesson ideas”). The imperative—“Submissions always welcome!”—along with its exclamation point reinforced the notion that this was a participatory space for educators who were interested in sharing their professional knowhow with others (see Figure 5.12 above).

In addition to the asynchronous and synchronous experiences made possible through the Twitter and Facebook sites, the data showed there were other opportunities for participants to share their ideas and experiences (e.g., “We are looking for successes, failures, lesson ideas, reflections, questions, and so on”) related to social studies within the #sschat affinity space. For participants who might want to share their voice with a global audience but did not want to post on Twitter or Facebook, it was possible to submit a blog entry to the #hsgovchat website (e.g., “Submissions always welcome!”) or the #sschat website (e.g., “Write a blog post...will be shared with thousands of amazing
Moreover, participants were also afforded the opportunity to suggest a #chat topic for a weekly #sschat session. On the homepage of the #sschat website there was a “digital” suggestion box (see Figure 5.8 above). A participant interested in suggesting a topic only needed to type the topic name in the box and click the submit button. However, my study did not identify whether any participants engaged in these experiences. As these types of online participatory spaces involving educators are becoming more popular (USED, 2007, 2010), additional research is needed to understand how participants engage in spaces that promote diverse opportunities for participation.

In the previous section (Attracting Participants and Encouraging Participation), I argued that it appeared that #sschat participants engaged in intentional efforts to attract participants to the #sschat affinity space. I also discussed how analysis of my data strongly suggests affinity spaces benefit from diverse experiences that new participants bring to the space (e.g., Hagel et al., 2012). The data revealed that the #sschat and #hsgovchat websites appeared to be designed to attract participants to the affinity space and encourage participation but this approach relied upon potential future participants finding the websites in the first place.

It is reasonable to assume that the stable websites were intended to expand the participants’ understanding of what it meant to be part of “#sschat” or “#hsgovchat.” According to its mission, “SSChat is more than just a hashtag.” As described above, there were multiple portals which fostered different types of interactions and provided diverse opportunities for participation. The section on the sschat website that provided a history
of the affinity space appeared to demonstrate that it was a space that was evolving based on the needs and interests of its participants. These two factors were likely to attract new participants who were interested in engaging in collaborative spaces with others who are seeking innovative ways to learn.

In this section, I considered how social media and their affordances were leveraged to attract participants who would likely have valuable insights and experiences to contribute to the #sschat affinity spaces. I realized that this was likely accomplished through the creation of unique #chat invitations that appeared to be crafted to be noticeable and recognizable. Three of the #hashtags associated with the #sschat affinity space gave the impression that they used a unique combination of text, color, and imagery as a way to “brand” everything that appeared on the internet with the graphic as being reflective of their respective spaces. I considered how participants leveraged affordances within social media for the likely purpose of targeting members of their network and encouraging them to engage in synchronous #chats as a way to bring diverse ideas and experiences to the affinity space. I explored two stable websites (#sschat and #hsgovchat) and considered how they may have encouraged participation by providing awareness and access to the various portals as well opportunities for participants to share their ideas and experiences with a larger audience.

**Supporting Different Types of Interactions: A Collective of Tools**

In this section, I am primarily concerned with examining how the combination of social media, participants’ knowhow, and practices fostered a participatory environment. I have already examined the factors that contributed to a providing a low barrier to
participation and how social media and its affordances were leveraged to attract participants and encourage participation. As will be discussed, different social media services were used to provide a space where participants could interact with each other synchronously and asynchronously as well as plan collaboratively for upcoming #worldgeochat sessions.

A closer examination of the data strongly suggests that practices inherent in the #sschat affinity space likely contributed to participants’ willingness to share their valuable insights and knowhow. Below, I examine how social media and practices exhibited by #sschat participants appeared to facilitate different types of collegial discussions. I explore how participants took advantages of affordances within social media to “share out” ideas with their respective networks and “bring in ideas” to the #sschat affinity space. I reflect upon how a Google Doc was used as a tool for collaborative planning. In the next chapter, I examine the various factors that contributed to the collaborative approach to sense-making that were a key component of the #sschat affinity space.

**Chatting with a Purpose**

Affordances associated with social media—in combination with practices\(^27\) inherent in the #sschat affinity space—contributed to focused discussions regarding social studies education in a highly interactive, participatory environment. By participatory environment, I mean a space in which is learning is collaborative,

\(^27\)“Practices” comprise socially recognized sets of behaviors, values, ways of speaking, and ways of using artifacts etc., that shape how people interact within different groups and serve to identify them as insiders to a particular group or groups.
participatory, and distributed (Lankshear & Knobel, 2014; Knobel & Kalman, 2016).

The data provided in Table 5.5 below suggests that #chat sessions that took place in the #sschat affinity space during the time of my study were fast-paced and highly interactive.

As illustrated below, the #chat with the least number of tweets (e.g., 340) averaged five tweets/minute and the #chat with the most tweets (e.g., 600) averaged ten tweets/minute.

Table 5.5

<table>
<thead>
<tr>
<th>#chat</th>
<th>Topic A</th>
<th># of tweets</th>
<th>Topic B</th>
<th># of tweets</th>
<th>Topic C</th>
<th># of tweets</th>
</tr>
</thead>
<tbody>
<tr>
<td>#sschat</td>
<td>Controversial Issues</td>
<td>530</td>
<td>Smartphones in the Classroom with @Discovery Ed</td>
<td>600</td>
<td>Changing Views of Heroes with Kenneth C. Davis</td>
<td>590</td>
</tr>
<tr>
<td>#hsgovchat</td>
<td>@YourWeekly Previews Upcoming Supreme Court Term</td>
<td>340</td>
<td>Newseum Launches New Website</td>
<td>360</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>#worldgeochat</td>
<td>Vocabulary in the Geography Classroom</td>
<td>440</td>
<td>Questioning in the Geography Classroom</td>
<td>480</td>
<td>Differentiation in the Geography Classroom</td>
<td>490</td>
</tr>
<tr>
<td>#engsschat</td>
<td>Genius Hour</td>
<td>520</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

A close analysis of the data revealed that there were three factors that likely contributed to this highly interactive, participatory environment. First, participants were able to post tweets from any type of digital device and application that was available to them when the #chat took place. Data collected from one weekly #sschat showed that participants used a variety of digital devices and applications to participate (see Table
This was important because participants engaged while they were in school teaching (e.g., “Tony from Singapore trying to follow #worldgeochat but teaching Yr10Geo class:”), attending their child’s event (e.g., “I'm here just slow. at daughter soccer & on iPhone”), and at home (e.g., “Checking in late, and while watching four young padawans”); and, it is conceivable that the choice of the device that was available was determined by their locale (e.g., PC/Mac computer, tablet, smartphone). Previous studies have found that educators found it difficult when the type of hardware they had available was not sufficient to meet the (technical) expectations of the software that ran the online space (Sari & Tedjasaputra, 2013; Warburton 2009). Because #sschat was based on social media, participants did not require any special computer hardware (or software) thereby likely making it easy to participate in the #sschat affinity space.

Table 5.6

<table>
<thead>
<tr>
<th>Device</th>
<th># people</th>
</tr>
</thead>
<tbody>
<tr>
<td>iphone</td>
<td>11</td>
</tr>
<tr>
<td>Android</td>
<td>13</td>
</tr>
<tr>
<td>ipad</td>
<td>5</td>
</tr>
<tr>
<td>Apple / IOS</td>
<td>17</td>
</tr>
<tr>
<td>Mobile web (tablet)</td>
<td>7</td>
</tr>
<tr>
<td>Twitter.com / Twitter feed (PC computer)</td>
<td>37</td>
</tr>
</tbody>
</table>

Second, the affordances associated with Twitter made it possible for multiple participants to respond to a question or make a comment at the same time. As such, there

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28 The purpose of Table 5.6 is to demonstrate that participants used multiple types of devices (some which were smartphones). It is not intended to suggest that participants who used one type of device posted more tweets than another.
was no need for the type of “turn taking” that occurs in face-to-face settings (e.g., in-person or online in a Google hangout). This was a time-saver, particularly at the start of the #chat when everyone was asked to introduce themselves (e.g., name, what they taught, where they lived). The data showed that the “introductory phase” across the nine synchronous #chats that were part of this study lasted only about 5-7 minutes each; and, on average, there were 22 participants who chose to introduce themselves during this time period. This same rate in a face-to-face setting would mean that everyone would have between 14-19 seconds to introduce themselves which would be difficult to do.

Some studies have found that educators who engaged in online spaces—and especially on discussion boards—felt overwhelmed by the large number of listserv responses or complained about discussions going off-topic or being monopolized by one member (Duncan-Howell, 2010; Thang et al., 2011). In contrast, my data indicated that many of the #sschat participants seemed to find the highly interactive environment acceptable for discussions about professional practice (“Awesome questions/answers tonight in mega-fast time”). The use of words/acronyms like “mega-fast,” “high-energy,” and “WTG [way to go]” to describe the #chat suggested that participants recognized the fast pace of the discussion but were not bothered by its speed. Indeed, participants seemed positive about the number of tweets made during the chat; often noting surprise regarding how well they were managing in the environment (e.g., “My fingers hurt from typing but my brain is spinning w/ great ideas! You all are killing it tonight. Trying to keep up. I love it”).

However, not all #sschat participants viewed their experiences using Twitter to
engage with other professionals in the same way. When asked in a survey I conducted in September/October 2015 to describe how #sschat had been professionally beneficial, one participant expressed he was leery of the use of Twitter for professional development purposes (e.g., “I’m suspicious that Twitter PD is overrated” (survey respondent 10, 10/12/2015). He acknowledged that it had value in “making connections” and “finding resources” but appeared skeptical of its use “for formal discussions.” His description, “the intellectual equivalent of speed-dating,” was apropos given the 140 character limit of a tweet. To be sure, Twitter’s character restriction limited what one person could say in a single post. Overall, however, my data supports previous studies that found educators appreciated the short responses that were part of Twitter #chats because they could be read quickly (Krutka & Carpenter, 2014) and participants who found it limiting or overwhelming were not obvious in this study.

A third factor that likely contributed to the highly interactive, participatory environment of the synchronous #chat sessions was the adherence to a set of practices associated with Twitter #chats. For example, the practice of sharing personal and professional information at the beginning each #chat (e.g., “Please introduce yourself. What do you teach and where are you from?”) appeared to help participants know who was participating in the #chat session. In addition, knowing the types of experiences they brought with them from their educational institutions (e.g., “BJ Piel joining #sschat for the first time! This year I’m teaching world history to freshmen and AP world history to sophomores”) may have helped participants feel comfortable engaging with other people they could not see or had never met in a face-to-face experience. It may have been for
this reason that participants chose to post an “introductory” tweet when they arrived midway (or later) through the #chat session (e.g., “Jumping in late”). Interestingly, and as mentioned earlier, other researchers found that trust was an issue in online communities for educators where interactions primarily occurred in an asynchronous environment. They posited the combination of face-to-face encounters along with virtual interactions may have contributed to a greater willingness to share resources (Matzat, 2012, 2010; Tseng & Kuo, 2014). It is possible that sharing personal information about themselves at the start of the synchronous session (or later if they arrived late) may contribute to participants feeling comfortable engaging in professional discussions in a space where they cannot see each other.

Another practice that may have contributed to the highly interactive, participatory environment was posting the topic and questions in advance (e.g., “Take peek at topic & some Qs for #sschat tonite here: http://t.co/3E7Ycqzp58 http://t.co/Ty8adoQYuZ.”) (See Appendix B for a list of all the #chat questions during the time of my study.) It is conceivable that posting the questions online may have served to “attract” participants by providing a glimpse of the focus of the upcoming #chat discussion. In the same way that administrators provide an agenda or materials to read in preparation for a faculty meeting, having access to the #chat questions in advance may have encouraged participants to begin thinking about the upcoming #chat topic and possibly gather resources that they might want to share. It was interesting to find that participants requested the link to the questions when they arrived late (e.g., “where can I find the Qs?”). In this case, having access to the questions seemed to be a real time-saver or a conduit to participation in
terms of establishing the discussion context. Rather than scrolling through all the tweets since the start of the #chat, participants could gain a sense of the focus of the #chat from the types of questions that had been asked thus far.

In many faculty meetings educators are not aware of all the topics to be discussed or the questions they will be asked to respond to in advance. In some cases, discussion questions or an agenda may be posted at the start of the meeting. A person arriving late may have trouble accessing this information quickly. In contrast, the co-leaders/moderators took advantage of the “open” format of Google Docs to post questions online in a format that was accessible to everyone. This meant anyone was able to view or share this information with little time or effort. It is possible that participants may have felt better positioned and more willing to post their ideas and resources in an environment where the expectations of the synchronous #chats were known in advance/accessible to everyone.

Another Twitter #chat practice that was used in the #sschat affinity space involved Q/A\(^29\) serving as abbreviations for the words: question and answer (e.g., “Our questions will be numbered Q1, Q2, etc. Please answer using A1, A2, etc.”). It seems reasonable that when communicating in a medium that restricted character use, participants would appreciate abbreviations to make more characters available for writing their comments. In addition, these abbreviations appeared to be helpful in sorting out the

\(^{29}\) On the technical side, the use of just a single capital letter (Q or A) as a substitute for an entire word (question or answer) meant there were now “extra” characters that could be used for the comment itself. Given that each tweet had a limit of 140 characters, a savings of five or more characters might be considered significant.
tweets that were questions from answers and other general comments. The relatively consistent use of this practice (Q1/A1) likely helped first time visitors recognize how a “discussion” could occur in a space that did not have a physical location and with participants who could not see one another.

The adherence to a set of practices designed to facilitate communication in a Twitter environment was likely helpful to first time visitors to the synchronous #chat experiences. The data showed that “newbies” to #sschat affinity space regularly “dropped in” (e.g., “I was looking for a bit of a professional outlet when I stumbled upon #SSChat going on”) and posted comments during #chat session. It is possible that the use of commonly accepted Twitter #chat practices enabled these individuals new to the synchronous #chat sessions to contribute in a more active role than lurkers who tend to take more a peripheral role (see Herbert; 2012; Lave & Wenger, 1991). In addition, attracting individuals who find Twitter #chats valuable (e.g., “I have to admit, Twitter Chats / Tweet Chats sometimes inspire me”) may be a useful way to bring in new knowledge flows, too (Hagel et al., 2012).

Another group that likely benefitted from adherence to Twitter #chat practices were the guest #chat facilitators. While no correlations can (or should) be made, the data showed that within a particular #hashtag group, the #chat sessions with the largest number of tweets were moderated by guest facilitators. During the time of the present

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30 See Appendix B for a #chat excerpt that illustrates the use of Q/A and the number of characters for each tweet.
31 Peripheral participants (i.e., new people to the group) learn the norms of the community by observing behaviors and interactions of the experts in the group (Lave & Wenger, 1991).
32 I use “facilitator” to represent the person that moderates the #chat session (e.g., start the session, ask predetermined questions, conclude the session).
study, guest facilitators belonged to three broad categories: (a) previous co-leaders (e.g., co-founder of #sschat), (b) potential future co-leader\(^{33}\) (e.g., guest facilitator of the *Differentiation in the Geography Classroom* #worldgeochat session, and, (c) well-known people in the field of social studies education (e.g., author of the *Don’t Know Much About History* series). In the case of the third category, it is possible that given their status in the field of social studies education (e.g., *New York Times* best-selling author), these well-known guest facilitators may have attracted new participants as well as more regular participants to attend their sessions. It seems reasonable to assume the use of social media—that was accessible to anyone in combination with well-known or easily learned practices to follow—made it possible for important people in the field of social studies education to oversee the synchronous #chat sessions without the need for specialized training. This was interesting to me because it appeared that by establishing and adhering to a set of (Twitter) practices anyone could facilitate the #chats. (In fact, *only* three of the nine #chats during my study were facilitated by the actual co-leaders/moderators.)

The role of the guest #chat facilitators within the #sschat affinity space was interesting for several reasons. From a theoretical perspective, it provides support to the notion that participants within affinity spaces represent a wide array of experiences and levels of expertise (Black, 2008; Curwood, 2013; Curwood et al., 2013; DeVane, 2012; Duncan, 2012; Durga, 2012; Gee, 2005, 2007; Gee & Hayes, 2010, 2012; Hayes & Lee, 2012; Lammers, 2012; Lammers et al., 2012; Lewis, 2014; Magnifo, 2012). The guest facilitator of the *Differentiation in the Geography Classroom* #worldgeochat moved into the role of co-moderator during the time when this dissertation was being written.

\(^{33}\) The guest facilitator of the *Differentiation in the Geography Classroom* #worldgeochat moved into the role of co-moderator during the time when this dissertation was being written.
#chat facilitators were likely chosen to moderate their synchronous session because of the expertise they brought to the affinity space. However, because they were responsible for *asking* the questions, the majority of “good stuff” (e.g., resources, teaching ideas) came from the participants. From a practical perspective, it provided an alternate way to think about the type of environment that might support collegial discussions about professional topics. The synchronous #chats are very different from what typically happens in more formal professional development settings where the presenter is viewed as having all the “expert” knowledge and there is little opportunity for educators to learn from each other in a large group setting.

**Asynchronous Experiences**

In this section, I consider how digital technologies—in combination with unique practices—made it possible for participants to benefit from the ideas and experiences that were shared by #sschat participants during synchronous #chat sessions even though they were not in attendance when they occurred. It can be argued that the co-leaders/moderators intended the archived #chats to be a viable portal by which participants could engage in the affinity space. The data analysis revealed that this appeared to be done in three ways.

First, in this particular example, the co-leaders/moderators used a type of social media (i.e., Storify) to archive chat sessions. Storify is a social media service that is used by the co-leaders/co-moderators to capture all the tweets that are posted during the synchronous #chat sessions. These archived tweets looked very similar to and acted in much the same way as tweets posted to Twitter during “live” #chat sessions. This is
important because a tweet includes visual (e.g., a participant’s Twitter icon), interactive (e.g., “like” button, hyperlinks\textsuperscript{34}), and textual information. Within the Storify space and as illustrated in Figure 5.13 (below), for example, hashtags (e.g., #sschat) appear in blue and are hyperlinked. Shortcut buttons (e.g., retweet, like) and links (e.g., “Zinnedproject.org/materials/peop”) were functional in the archived version. Images that were part of the original tweet appeared in the same manner in the archived version. The ability to “capture” a tweet with all its interactive functionality seemed to me to be a great advantage because it meant participants could still interact with the tweet in the same ways that they would during a “live” chat but at a time (e.g., days, weeks, or years later) and place of their convenience.

\textsuperscript{34} Link(s) refers to a webpage(s); also known as a URL (Uniform Resource Locator). In some (software) applications, clicking the link takes the reader to a specific website.
Second, co-leaders/moderators broadcasted/advertised information about how to access the archived version after the synchronous #chat sessions had ended. This was interesting because the “advertisements” appeared on multiple portals and appeared to be done in the form of an invitation. For instance, tweets targeted participants who were not able to “attend” the session during its scheduled time (e.g., “Missed #sschat check out the Storify on teaching controversial issues with @Ron_Peck https://t.co/SvO96RvxUY”). And, related Facebook posts appeared to be intended for participants who missed the #chat (see below) as well as those who may have wanted to have control over how they engaged with the #chat session (e.g., “Did you…want to dig a little deeper into the discussions”).

Did you miss tonight’s Changing Views of Heroes chat or want to dig a little
deeper into the discussions? Here's the archive. Thanks again to Kenneth C. Davis for hosting. [https://Storify.com/CHitch94/10-12-2015](https://Storify.com/CHitch94/10-12-2015)

Third, co-leaders/moderators provided a (static) webpage in which *all* the #chat sessions from the inception of #hsgovchat, the weekly #sschat, and #worldgeochat could be accessed. A close examination of each of the websites portrayed in Figure 5.14 (below) revealed that different social media—that were free and did not require any login—were used to provide a way for anyone in the world to benefit from the resources and experiences that were shared during the synchronous #chat sessions.
<table>
<thead>
<tr>
<th>Chat Name</th>
<th>Archives</th>
<th>Description</th>
</tr>
</thead>
</table>
| Weekly #sschat   | ![Image](sschat.png) | - Website created using Weebly
- Names and dates of all the #chats were in chronological order (starting with first #chat July 2010)
- Text was hyperlinked and went directly to the specific archived #chat |
| #hsgovchat       | ![Image](hsgovchat.png) | - Website created by Blogspot
- Hyperlink on #hsgovchat went to repository where all #chats were stored on Storify website (initial #chat was 8/2013)
- Participants were able to “follow” Storify website |
| #worldgeochat    | ![Image](worldgeochat.png) | - Website was a Google Doc (used to collaboratively develop #worldgeochat questions)
- Links to archived #chats were not always posted |

*Figure 5.14.* Each weekly synchronous #chat group used a different approach to provide access to the archived #chat sessions.

Leveraging digital technologies to provide an alternate means to “attend” the synchronous #chat sessions was important because participants often had conflicts as a result of parental responsibilities (e.g. “Wish I could stick around longer, but time for me to get daughter to ballet. Looking forward to the archives!”), school obligations, and
other personal events preventing them from attending the live experience or requiring them to leave early. In addition, while participants indicated they were able to “keep up” with the speed of the fast-paced synchronous sessions (e.g., “ha! it's so fun. I can't believe I can keep up”), it is likely they appreciated being able to take time to review the resources they were referenced during the #chat rather than having to delay the experience to another time (“I'm going to have to read the bazillion things I have pinned on Pinterest one day now!”). And, the archived #chats afforded the opportunity for immediate (“just in time”) access (e.g., “looking for ideas for resources on different forms of federalism”) to participants’ knowhow and experiences regarding a specific social studies topic when the need arose (e.g., “Check out our #hsgovchat on federalism a couple years ago: https://t.co/upcY4Ie3de”).

Previous studies have revealed that viewing posts online asynchronously was beneficial because it allowed educators to reflect upon what was being said (Carpenter & Krutka, 2014; Duncan-Howell, 2010; El-Hani & Greca, 2013; Forte et al., 2012; Hur & Brush, 2009; Lieberman & Mace, 2010; Sari & Tedjasaputra, 2013; Rowsell et al., 2013). While it is possible that #sschat participants were “reflecting” when they viewed the tweets posted in the archived #chat, I have no data that either confirmed or denied reflection was happening. It is an interesting finding in these other studies and worthy of consideration for another study.

The data from my month-long study suggests that the co-leaders/moderators wanted participants to have access to the resources and ideas shared during the synchronous #chats without placing any requirements upon participants in terms of
attendance or reciprocal contributions. This was interesting because leaders of formal professional development experiences often place a requirement that only people in attendance can have access to handouts and presentations provided during sessions. In contrast, the co-leaders/moderators appeared to design the archived #chat portal to make it possible for participants to benefit from a highly interactive discussion in an asynchronous environment.

One of the core elements of an affinity space is the ability for participants to benefit from and contribute to its collective knowledge. In the case of Kongregate (a discussion board devoted to playing online games), participants had access to tutorials ("shootorials") which aided in “everyday” game players in becoming game designers (Duncan, 2012). Likewise, Gee and Hayes (2010) found members of the Sims Community (an online space for people interested in Sims games) benefitted from the resources posted on its website. Hagel and colleagues (2012) assert that relatively ubiquitous access to digital technologies, including social networking sites, has made way for a “big shift” (p. 31) away from a top-down “push” society to a more creative, innovative way of doing business and everyday life that relies on a “pull” approach where individuals seek out and find resources and ideas when they need them. The example of the #sschat participant sharing a link to an archived #chat in response to the request that was posted asking for Federalism resources is an apropos example of the benefits of a “pull” approach. In thinking about schools, it would be particularly useful to have access to professional learning sessions (and the resources) related to the implementation of a new program (e.g., math, reading) available for teachers or supervisors new to the district
in subsequent years or for teacher educators who are responsible for preparing future
teachers for that district so that everyone has access to the same resources.

**Side Conversations**

By “side conversations,” I am referring to the type of interactions that took place
during the synchronous #chat session among two or more participants but was not
intended to be part of the larger #chat discussion (see Figure 5.15). These side
conversations were interesting because they demonstrated that while the #chat experience
was occurring, it was possible for a participant to ask a question that was of personal
interest to him/her or for several participants to engage in their own personal
conversation without derailing or disrupting the larger discussion because it took place in
a virtual environment. To be clear, this phenomenon was different from professional
development sessions where people post questions on post it notes to be addressed at a
later time or when a face-to-face group engages in their own discussion during a break or
after the session is over.

A close examination of the side conversations in my data revealed that they
occurred across all the synchronous #chat groups and involved a range of topics related to
instructional practice and students. In addition, these side conversations served a variety
of purposes such as providing support, offering advice regarding potential funding
sources, answering questions about technology tools, and making connections to people
in other networks (and thereby leveraging weak ties).

Interestingly, there were times when affordances within Twitter were leveraged to
target additional people (not currently engaged in the #chat session) who were deemed to
have relevant knowledge to join in a side conversation. For example, in Figure 5.15 below, the first participant posed a question during the monthly #engsschat session about social studies teachers working with teachers of other content areas to do “genius hour”\(^\text{35}\). What was interesting about this set of interactions was the manner in which the “@” symbol in conjunction with each person’s Twitter name was leveraged to direct a question/comment to a specific individual that might be knowledgeable about genius hour but was not likely part of the #engsschat session. It began when @joykjr—an #engsschat participant who had been recognized during the synchronous #chat as having expertise and experience with genius hour—tapped into her network in an effort to find someone who might be able to answer the question. The use of “@” symbol followed by the Twitter name served two purposes. It alerted the person to which the tweet was directed that they were being mentioned. And it also served as a type of virtual introduction; which was likely helpful for the originator of the question when “weak ties” were contacted to provide assistance (“check out @LS_Karl blog. He teaches HSSS and does #20time”).

\(^{35}\) Genius hour (also known as 20% time) refers to a class (or part of a class) which is structured such that students have the opportunity to explore their own passions and was the focus on this monthly #engsschat session.
Because the side conversation was initiated among participants involved in a Twitter #chat and took place in a digital environment, the data showed that participants were able to get responses to their inquiries in a relatively short amount of time. In the case of a side conversation about having students write their arguments as a response to Q5 “How do you keep emotion to a minimum and good arguments with evidence to a maximum?,” in just a few minutes there were several ideas shared about activities to try.
(e.g., “Kids write their arguments and then pass the paper and respond to others”), the type of software to use (e.g., “We use Haiku as our learning management system”), and how it helped students (e.g., “Online discussions allow shy Ss to have a voice which is pretty powerful”). In regard to the earlier example involving Genius Hour, it took less than ten minutes (and the help of multiple individuals across several U.S. states) for the participant to learn of a name of someone who might be able to assist him in his inquiry.

In both scenarios, the affordances inherent in Twitter along with the knowhow to use them resulted in the ability of a small number of participants to (instantaneously) have a side conversation about their respective topics without causing any distraction or disruption to the main chat discussion and without needing to leverage another type of social media or communication tool (e.g., smart phone text). In the case of the question about interdisciplinary Genius Hour experiences, the participants were already online and, consequently, well-positioned to reach out to their networks to potentially find someone who could assist with an answer. Since they were already using Twitter for the chat discussion, they did not need to employ any other software or device to connect to their network.

The other side conversation began much in the same way as what happens in a face-to-face meeting when two people sitting next to one another comment on what someone else says. However, these participants were not in the same physical space. As a result, a third participant benefitted from the fact that the side conversation occurred online and within view. She observed two teachers discuss how they were able to get their students to write profusely about controversial topics as well as learn the name of
the software used by one teacher. The key in both of these examples is that the side conversations provided a structure by means of which interested participants could engage in separate discussions about a topic that was of mutual interest without disturbing the synchronous #chat session that was occurring at the time.

**Mini-discussions**

I considered a “mini-discussion” to be a set of interactions in which there were at least five comments related to the same Facebook post. During the 30 days that my study took place there were eight distinct episodes of mini-discussions on the #sschat Facebook page. These mini-discussions included a range of topics related to instruction (e.g., interactive self-paced presentations, cell phone article), professional practice (e.g., what makes good PD, eccentric teachers), current events/news stories (e.g., textbook word use of workers or slaves), historical events (e.g., Tommie Smith and John Carlos’ 1968 Olympic podium protest), and entertainment and travel (e.g., Hamilton Play, Napoleon exile vacation). Generally speaking, the mini-discussions topics were similar to the type of posts that could be found on any of the #sschat hashtags as part of the daily feed or synchronous #chat sessions.

A close analysis of the mini-discussions on the #sschat Facebook page indicated that this type of social media enabled participants to interact with one another in ways that were not possible with posts to the daily Twitter feeds or during #chat sessions that were part of the #sschat affinity space. This flexibility was due to affordances inherent in Facebook that made it possible for participants to post at a time of their convenience.
(e.g., via the comment button\textsuperscript{36}) and share a response that was not restricted by character length (e.g., the 140 characters in Twitter at the time of my study). As illustrated in Figure 5.16 (below), all of the responses to the original (discussion) question were posted beneath one another, in a sense suspending time. As a result, the mini-discussion appeared to resemble an online discussion forum where comments on the same topic appeared together in the same space.

For instance, there were 13 comments posted over one and a half days in response to “discussion” questions (e.g., “Are we losing the eccentrics in education? Is education demanding one type of teacher?”) and an article (e.g., “Secret Teacher: brilliant eccentrics are a dying breed in education”) that appeared on the #sschat Facebook page.

Even though this discussion was asynchronous in nature, participants gave the impression that they were interacting with one another at the same time in the same space. For instance, one participant seemed to somewhat disagree with the article (e.g., “I don't think they are dying”) but then went on to offer an alternate explanation (e.g., “I think they are being unnaturally selected against in order to avoid potential objections”). The next participant agreed with his claim (e.g., “Sad, but very true”) and then provided an example of what was happening in her school where all the teachers are supposed to be teaching the same thing at the same time. This flexibility with regard to time appeared to allow participants to provide comments on and feedback within the mini-discussion at a time of their convenience. This feature seemed to be of great benefit to participants who are busy and may not have time to engage with Facebook on a daily basis but still want to

\textsuperscript{36} The “comment” feature played an important role in providing a structure conducive for mini-discussions that was not possible in Twitter.
participant in discussions about professional topics with other educators.
The affordances provided by Facebook made it possible for participants to engage in mini-discussions at a time of their convenience and without character restrictions (e.g., 140 characters in Twitter).
In this example, more than half of the responses exceeded the 140 character limit imposed by Twitter. The ability to post a longer response seemed to enable participants to discuss their ideas more deeply, build off the ideas of others (e.g., “Couldn’t agree more…Intellectual creativity is dying along with it), make personal connections (e.g., “I am personally experiencing a one size fits all model”), and/or provide evidence in support of claims they were making—which likely contributed to a better understanding of the point they were making. This set of interactions is interesting because it resembles the same type of (face-to-face) discussion that might occur in a faculty room where people take turns and build off the ideas of others. In addition, it offers an alternate way to engage in collegial discussions for participants who might not enjoy the fast-pace of synchronous #chat sessions or find them difficult to follow when random tweets (to the #hashtag) appear or responses to previous questions show up after the next question and responses have been posted.

Cross-pollination of Ideas

Thus far in this chapter, I discussed how digital technologies facilitated interactions among participants during the synchronous #chat experiences and the mini-discussions that occurred on the #sschat Facebook page. I examined how the affordances inherent in social media facilitated #sschat participants “sharing out” and “bringing in” the type of ideas and resources that are likely to be viewed as valuable by the other #sschat participants. I found this use of digital technologies interesting because it appears
to expand our understanding of boundary crossers\(^{37}\) and what they do.

Forte and colleagues (2012) called educators who participated in online spaces, “information brokers” because they brought ideas that were discussed online back to their colleagues in their schools. \#sschat participants were also sharing what was posted during the synchronous \#chats and on the \#sschat Facebook page. However, a close examination of the data revealed there was more happening that appeared to be important. I begin with discussing how participants used digital technologies to “share out” information mentioned in the \#sschat affinity space and its possible effect. Later in this section, I examine how digital technologies were leveraged to “bring in” ideas and information.

Sharing information posted in the \#sschat affinity space appeared to be a common practice\(^{38}\). By way of an example, there were 120 retweets posted during the 60 minute \textit{Controversial Issues} \#chat. The data showed \#sschat participants used Twitter’s retweet feature to share resources (e.g. “We'll be looking at Confederate secession documents when we get to the civil war this year - \url{http://t.co/CVFXVvhXuk \#sschat}”), instructional strategies (e.g. “Or, perhaps we might have put Columbus on trial. \url{https://t.co/rRQfsyvPFI}”), and comments (e.g. “Q6: In the same vein, US army bases are named for Confed generals. Rename them too? Weren’t they traitors?”) and so forth to people in their network. In Facebook, \#sschat participants used the comment feature to draw their colleagues’ attention (e.g., “please tell me you saw this... :-D.”) to resources.

\(^{37}\) The term boundary crossers, boundary spanners, bridges, or brokers refer to individuals who belong to multiple networks and spread ideas and resources from one space to another (Schlager et al., 2009).

\(^{38}\) “Practices” comprise socially recognized sets of behaviors, values, ways of speaking, and ways of using artifacts etc., that shape how people interact within different groups and serve to identify them as insiders to a particular group or groups.
(e.g., political cartoon) and propose collegial discussions (“I see a personal PLC in our future!”) in regard to a post about using “interactive self-paced presentations.” The latter example was interesting because it suggested the participant imagined the presentation could be used in a professional learning experience rather than simply being used as it was intended for student learning.

Regardless of the type of social media used, four important considerations come to mind regarding these actions. First, the affordances associated with Facebook and Twitter made it possible for ideas or resources to be shared immediately after being viewed by the participant (without the need for other software such as email or a face-to-face interaction). Second, recipients were exposed (in a small way) to the type of information shared in the #sschat affinity space as well as some of the participants. As such, they may become curious about the degree to which engaging online with others who have similar interests might be valuable them. Third, participants who engaged in synchronous #chats were able to share information with colleagues—that were not in attendance—without causing any disruption to the #chat experience. Fourth, participants were able to simultaneously share information posted in #sschat affinity space and offer potentially new ways to use it. In professional development settings where participants are not allowed to use their cell phones (or other digital devices), this type of instantaneous sharing with colleagues (who are not part of the session) is not possible. Thus, they cannot have non-disruptive side conversations if they cannot use their phones. Moreover, it seems reasonable to claim that leveraging digital technologies to share ideas and resources from one online educator space with other colleagues (who are not in
attendance) is important because it is well-documented that educators do not have sufficient time to engage in discussions with colleagues for professional purposes (Darling-Hammond, 2015; OCED, 2014).

In addition to “sharing out” (above), I contend that participants who “bring in” ideas that reflect what they do in various educational settings and share them with the other #sschat participants in the affinity space are also engaging in a form of boundary crossing. For example, affordances within social media also made it possible for #sschat participants to share multi-modal responses that “showed” what they were doing in their educational settings to promote student and teacher learning that went beyond “telling” about the experience. As demonstrated in Figure 5.17 below, the posted photograph included implicit information that was not apparent in the text alone (e.g., “I’ve found it helpful to just simply have the names exposed to the students on a daily basis”), such as how color (e.g., red for Republican and blue for Democratic candidates) could be used to promote understandings regarding the field of candidates (e.g., more Republican candidates) and how the inclusion of the candidates’ portraits likely helped with name recognition.
In addition to providing visual displays (photographs) of what the participants did in their classrooms, the data revealed participants shared other examples of activities they likely used to promote student learning such as manipulatives they created (e.g., vocabulary cube) and physical activities students engaged in (e.g., vocabulary relay). The photographs provided visual clues that appeared to help understand how to construct vocabulary cubes (e.g., 13 squares with text inside each side) and engage in vocabulary relays (e.g., students line up across from each other). In a similar way, the use of songs (e.g., “I'm not a big fan of "everybody gets a trophy" but, I believe with in all of us "Everybody is a star" http://ow.ly/T5YiI”) to answer #chat questions provided an example of how media can be used in unique ways to support student learning. And,
links to the participants’ social media sites provided access to resources curated by them (e.g., “May this LiveBinder\(^{39}\) give you ideas and inspiration to start your own Genius Hour”), blogs that reflected their teaching challenges (e.g. “Responsibility of Learning https://t.co/R3Ktk9u2U”), resources they used for classroom instruction (e.g. “A5 #worldgeochat simple class protocols for keeping Ss engaged in conversation http://petespiegel.com/2014/10/10/facilitate-the-classroom/ …”) and professional development (e.g. “Here is the Google Slideshow I use with @knixonAHS & @mrsjjee when we talk about #geniushour: https://t.co/BHqNdW7hm l”).

These examples were interesting for several reasons. First, these resources reflected the experiences of practitioners currently working in these schools. Seeing how learning experiences are enacted is important because previous studies have found that educators have trouble implementing new ideas without the support of colleagues (Kennedy, 2016). Moreover, #sschat participants who were pre-service and novice teachers, in particular, likely benefitted from reading about how other participants intended to modify the ideas for use in their classrooms (e.g., “Trying this as a review for pop [population] and mig [migration] in a couple of weeks”). Seeing how activities could be adapted to meet students’ needs and interests is an important part of learning how to teach (see Darling-Hammond, 2015; Lambert, 2012; Kalman & Guerrero, 2016; Kennedy, 2016; Knobel & Kalman, 2016; USED, 2010a, 2010b; USED, 2017). In addition, the “personal insights” that veteran educators posted after implementing these activities in their classrooms were likely more meaningful because they could see the

\(^{39}\) A LiveBinder acts like an online digital binder in which a person can add digital files in the form of images, videos, PDFs, etc.
finished product and become aware of the challenges before they attempted to incorporate the activity with their students (e.g., “but next time before I laminate and cut-having somebody check my work!!”). Finally, sharing resources that could be downloaded and modified by anyone (e.g., “This document can be COPIED and then EDITED with your own notes by YOU!”) was a common practice in the #sschat affinity space. This was interesting because in this era of “standardized” tests, curricula, and instruction, many of the resources that were shared in #sschat were created using some form of social media that was easily accessible (e.g., free, no log in) and could be downloaded and “mashed up” as desired. To be sure, this was very different from an administrator telling teachers they needed to use a certain template for their lesson plans or instructional activities. In these scenarios, participants were able to benefit from the resource itself (e.g., content-rich slideshow) as well as the practitioner’s knowledge and experience that influenced its creation. The cross-pollination of ideas was fostered in the #sschat affinity space through the use of affordances associated with social media that allowed for sharing multi-modal posts and participants’ willingness to share their knowhow and experiences in formats that could be downloaded and modified by other participants based on the needs and interests of their students.

**Collaborative Planning**

Throughout this section, I have described the many ways in which digital technologies and their affordances were leveraged to provide a wide range of opportunities for social interaction among #sschat participants for the purpose of sharing/accessing resources and knowhow related to social studies education. In a
previous section, I discussed the usefulness of sharing the #chat questions with #sschat participants prior to the actual session but had not considered the role digital technologies might have had in the development of the questions. In this subsection, I consider what can be learned from exploring the specific online word processing document that was used to create the questions for the #worldgeochat sessions.

The data strongly suggest that the use of a Google Doc appeared to contribute to a transparent and collaborative process that facilitated the creation of the synchronous #worldgeochat questions. As illustrated in Figure 5.18 below, the co-moderators appeared to show their desire to promote a collaborative process by making the Google Doc available to—and editable by—anyone with the link to it. The phrase, “FEEL FREE TO COMMENT!” in bold, capital letters gave the strong impression that the co-moderators sincerely wanted participants to feel comfortable sharing their ideas. Additionally, the inclusion of the statement, “We are always looking to make the questions better!” suggests that the co-moderators anticipated that the participants would likely have valuable contributions that would improve the questions and were open to a collaborative approach to the question-writing task. Moreover, co-moderators posted tweets in advance of the #chat sessions inviting participants to partake in the creation of question (e.g., “I’m working on finalizing #worldgeochat Qs. Pls share your thoughts with me”).

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40 Data collection did not indicate the process by which the questions for the weekly #sschat, #engsschat or #hsgovchat sessions were constructed.
Figure 5.18. All participants were invited to contribute to the creation of the #chat questions for the synchronous #worldgeochat sessions.

An examination of the four sets of questions that were designed for the #chat sessions that took place during the time of my study showed that specific formatting tools such as font color, italics, bold, and cross-out were used to indicate alternate versions (e.g., from “What does differentiation look like” to “How do you define differentiation”). As demonstrated in Figure 5.19 below, the comment feature built into Google Docs also was employed to ask questions in regard to the question’s meaning (e.g., “What are you trying to find out”), to recast the question (e.g., “How do you differentiate assessments both formative and summative”), and to offer positive comments (e.g., “Love this one!”).

Overall, the type of suggestions that were made appeared to be minor. It was interesting that rather than deleting the original version of the questions, the co-

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41 The #worldgeochat session was cancelled at the last minute because the presidential candidate debates took place the same night.
Online connectivity: A social study

Moderators sought the use of specific formatting tools to propose their thoughts for alternate versions. This approach appeared to serve two purposes. First, it looked like the creator of the original question was able to determine the final version. Second, allowing both versions to be viewed at the same time may have been done to show how minor changes can make one version more conducive to promoting discussion. It might also have been to help ensure that the revised question was in keeping with the “intent” of the original too (rather than changing the focus of the original question).

Figure 5.19. Participants leveraged various font tools and the comment feature as a way to make suggestions.

The use of a Google Doc in which the selected settings allowed anyone to access or edit it—along with an invitation to everyone to share their comments—showed that the co-moderators were open to and wanted feedback from the participants with regard to
what was to be discussed during the upcoming #chat session. This was a very different approach from the “workshop” model where one person (the perceived expert) designs the experience without the input of the participants or a “top-down” approach where an administrator decides what the teachers need to learn. In contrast, the use of a familiar word processing program—accessible to anyone with internet access—meant that participants did not need to acquire new software and learn how to use it. Rather they could provide feedback to the draft questions by using tools within the program in authentic ways (e.g., cross-outs, comments). The type of comments that were shared appeared to acknowledge that participants might have different needs and interests based on their experiences (e.g., “Perfect for providing guidance for someone to try ‘just one little thing’”). The use of the comment feature to ask questions and provide feedback that was positive, supportive, and pragmatic, and demonstrated a commitment to engaging in a collaborative process where participants seemed to feel comfortable sharing ideas. Further, seeing the questions in various stages of completeness (e.g., draft, under revision, final) appeared to emphasize a commitment to a collaborative process.

Finally, the #worldgeochat Google Doc was a particularly interesting artifact of the #sschat affinity space because it captured the questions from all the #worldgeochats since its inception. It is conceivable that this document could be viewed as “record” of an ongoing, sustained approach designed to address the professional needs and interests of world geography educators. As such, this document can contribute to the construction of a knowledge base of what middle and high school geography teachers should know, be able to do, along with identifying challenges that they may face in their positions.
to such a knowledge base could be particularly beneficial to teacher educators, pre- and in-service teachers, administrators, as well as professional development and content providers because it is based on the needs and interests of practitioners.

Discussion

I began this chapter by providing a brief review of the literature regarding online spaces for educators. Some of the current research in this area has shown that educators found technology to be a barrier while others appreciated the access it gave them to the ideas and resources that were shared within the online space. Researchers in the field of teacher education have called for studies that examine the structure of effective professional development environments (Borko et al., 2009; Cochran-Smith & Zeichner, 2010; Curwood & Biddolph, 2017; Desimone & Garet, 2015; Moon et al., 2014; Opfer, & Pedder, 2011) and this study was designed to understand what happens in online spaces for educators as a way to consider how to design more formal professional development experiences that will be of interest to educators. There already exists considerable research that identifies key features that lead to effective professional development (see Desimone, 2009; 2011a; Desimone et al., 2013; Desimone & Garet, 2015; Guskey & Yoon, 2009; Hill, 2009; Opfer & Pedder, 2011). These features include, for example, content-focused, sustained time, and active participation (see Chapter 2 for more). While I make no claims about #sschat being a place where professional development occurs, the data shows that participants engaged in a range of interactions related to discussing or sharing resources related to professional practice. boyd (2010, p. 1) argues “Networked publics’ affordances do not dictate participants’ behavior, but they
do configure the environment in a way that shapes participants’ engagement.” It is for this reason that I began this chapter by unpacking the digital technologies and affordances of the #sschat affinity space to better understand the ways in which they supported interactions, facilitated sharing of knowhow, experiences, and resources, and attracted and encouraged participation. Moreover, the research question that guides this study—what can be learned in online spaces such as #sschat to inform and shape more formal professional development—suggests that a close analysis of the structure and elements of the online space is warranted.

Earlier, I described how the selection of social media to form the infrastructure of #sschat provided a low barrier to participation. The popularity of social media for personal use—“seven-in-ten Americans use social media to connect with one another, engage with news content, share information and entertain themselves” (Pew Research, 2016, para. 1)—suggests that many of the #sschat participants may not have needed to learn how to use social media to interact with other #sschat participants. In addition, my data showed that interactions within social media spaces involved participants adapting or modding the medium to broadcast the types of activities that they were doing as practitioners as well as those that involved “apprenticing” their students to becoming active, informed citizens. Indeed, the data show how the adoption of Twitter #chat practices commonly used around the world (e.g., Q1/A1) clearly seemed to facilitate collegial discussions about professional practices. I provided examples of how social media and their affordances were leveraged to attract participants and encourage participation. This was done by co-leaders/moderators broadcasting uniquely crafted
synchronous #chat invitations and participants retweeting them to their respective networks. In addition, specific features within Twitter were used to send targeted tweets to encourage specific individuals to engage in the synchronous #chat session. I examined two websites within the #sschat affinity space that were designed to be a central hub. By central hub, I mean they provided access to other portals, broadcasted critically important logistical information about the synchronous #chat sessions, stored archived chats, and offered diverse opportunities for participation. I explored how social media and their affordances were leveraged to provide three types of collegial discussions about professional practice that were synchronous and asynchronous. I provided examples of how participants shared ideas and resources from the discussions with people outside of the #sschat affinity. I examined how the co-leaders/moderators appeared to create a portal that made it possible for participants to engage with the synchronous #chat sessions at a time and place of their choosing. I argued how the use of multi-modal tweets fostered the cross-pollination of ideas. Finally, I showed how social media and its affordances were also leveraged to support a collaborative approach to constructing the questions for the synchronous #worldgeochat sessions.

My study contributes to the field of online spaces for educators by highlighting the role digital technologies and their affordances played— in combination with participants’ knowhow and practices— to foster a participatory environment. A core understanding of affinity spaces is that participants freely share their knowhow and experiences within the affinity space that are related to their shared passion or interest. It is likely that Gee did not consider the significance of technology in his conception of
affinity spaces because his framework was developed prior to the rise of social media as a widely acceptable and familiar tool used by people of all ages around the world. Further, it was before the time that relatively ubiquitous access to the internet was made possible by the increase of availability of wireless access and mobile devices. Other researchers have recognized that digital technologies have increased opportunities for participants from around the world to engage in experiences related to their shared passions (e.g., Biddolph & Curwood, 2016; Black, 2008; Curwood, 2013; Curwood & Biddolph, 2017; Curwood et al., 2013; DeVane, 2012; Duncan, 2012; Durga, 2012; Gee, 2005, 2007; Gee & Hayes, 2010, 2012; Hayes & Lee, 2012; Jenkins, Purushotma, Weigel, Clinton, & Robison, 2009; Lammers, 2012; Lammers et al., 2012; Lewis, 2014; Magnifo, 2012).

For example, Jenkins and colleagues (2009) coined the term, “participatory culture” as a way to explain what was happening in the online spaces that he studied. As is shown in Table 5.7 (below), there are many commonalities between nurturing affinity spaces and participatory cultures. For example, both emphasize that anyone can participate and everyone’s contributions are valuable. In addition, both types of spaces promote a more distributed approach to leadership where mentorship plays an important role. Further, there is a commitment to the shared interest along with openness to feedback that promotes participants’ sharing their ideas, experiences, and creations in the two types of spaces. In both cases, the use of social media contributed to a low barrier for participation because it was free, required no log in, accessible from any device, and could easily be adapted for professional use (Biddolph & Curwood, 2016; Carpenter & Krutka, 2014). However, my study shows that there are also some important differences
between these two conceptions of online practice that make “affinity space” a more useful way of thinking about how what happens in online spaces for educators.

Table 5.7

A Comparison of Affinity Spaces and Participatory Cultures

<table>
<thead>
<tr>
<th>Affinity Spaces</th>
<th>Participatory Cultures</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Space is defined by common interests or passions—not race, age, sex, class,</td>
<td>• Low barrier to participation</td>
</tr>
<tr>
<td>gender, etc.</td>
<td>• Strong support for creating and sharing one’s creations with others</td>
</tr>
<tr>
<td>• Participants represent a wide array of experiences and levels of expertise</td>
<td>• Some type of informal mentorship</td>
</tr>
<tr>
<td>• Some portals are strong generators</td>
<td>• Members believe that their contributions matter</td>
</tr>
<tr>
<td>• Individual and collective knowledge is promoted and nurtured</td>
<td>• Members feel some degree of social connection with one another (at the least they</td>
</tr>
<tr>
<td>• Tacit knowledge is used and honored; explicit knowledge is encouraged</td>
<td>care what other people think about what they have created)</td>
</tr>
<tr>
<td>• People can participate in an affinity space in many different ways and at</td>
<td></td>
</tr>
<tr>
<td>many different levels</td>
<td></td>
</tr>
<tr>
<td>• Leadership takes on various forms</td>
<td></td>
</tr>
</tbody>
</table>

While some may view the differences between affinity spaces and participatory cultures as minor, for me they illustrate why Gee’s conceptual framework is more useful in explaining what is happening in #sschat than Jenkin’s understanding of participatory cultures. For instance, studies that contributed to the concept of participatory cultures typically involved the actions of young people, particularly in terms of what they were doing (and learning) in online spaces outside of school (see Jenkins et al., 2009; Ito et al., 2009). The #sschat affinity space was comprised of participants of all ages and the
discussions typically focused on what the participants were doing in school. The participatory sites that were studied by Jenkins and colleagues often focused on issues related to social justice with the goal of proposing (and implementing) solutions to social problems that affected the public at large (beyond their individual needs). Moreover, there was often a strong civic engagement component that contributed to the solution. For instance, the Harry Potter Alliance, as studied by Ito and colleagues, was comprised of young people (mostly Harry Potter fans) who sought to address issues of “literacy, equality, and human rights” (p, 48) by organizing campaigns among its various chapters to donate books (> 80,000) and raise funds for medical supplies for (e.g., Haiti earthquake) local and international communities along with a host of other activities. The names of their campaigns often reflected their commitment to civic engagement (e.g., Wrock [Wizard rock] the Vote). As will be discussed in the next chapter, #sschat participants appeared to also be interested in “literacy, equality, and human rights” (Ito et al., 2013, p. 48), but their intention appeared to be in providing learning experiences that enable their students to develop the knowledge and skills they would need to address these issues. In the case of the #sschat affinity space, it was the participants’ shared interests related to their own professional practice that brought participants to the space rather than a concern with mobilizing social activists. Extant affinity space focused research shows how individuals in other affinity spaces (e.g., fan fiction spaces, gamer spaces) engaged in a range of experiences sharing resources, offering feedback, and providing support as a way to become better at their interest in being a writer (Black, 2008; Lammers, 2012), being video game player (Duncan, 2012; Gee & Hayes, 2012;
Hayes & Duncan, 2012), and being video game modder (Duncan, 2012; Durga, 2012), to name just a few. My analyses in this chapter strongly suggest that many of the participants were concerned with being social studies teachers. The participatory culture focus on social action is inarguably important, but it does tend to elide this being and becoming dimension that is recognized overtly within affinity space scholarship and which, I argue, contributes important insights in research concerning teachers’ professional development, too. In affinity spaces, knowhow and resources that participants choose to share contribute to the collective knowledge of the space and help to nurture participants’ individual knowledge and their being something. Conceptions of professional development may be served well by attending to this dimension of what teachers are interested in learning about by leveraging what it is that teachers want to be.

Other researchers have attributed what was happening in online spaces for educators to the leaders of the space and gave these leaders unique names that described the roles they played. For example, in a study of two online communities of teachers of English as a Foreign Language (Pino-Silva & Mayora, 2010), one leader was described as a “team coach” who planned and directed what was happening as a way to encourage participants to consider new ideas or take specific actions. The other leader was regarded by the researchers as more of a “referee” who saw her responsibility as making sure the “rules of the game [were] observed” (p. 267). In a similar vein, Booth (2012) posited that it was a combination of structured conversations and strong leadership that contributed to a culture that promoted resource sharing. Her study of two online spaces for educators (the National Educators Learning Network (NELN) and English Teachers’ Online
Community (ETOC) suggested that the leaders within each space provided guidelines about _how_ to engage in the online discussions and she gave them nicknames (e.g., “sheriff”) to describe the way in which they _monitored_ (and controlled) participants’ behavior and enforced participation norms. Table 5.8 below provides a comparison of the characteristics of the synchronous #chat sessions that took place in NELN and ETOC with those that were part of the #sschat affinity space.

In the online communities that Booth (2012) studied, there was a single moderator who was responsible for facilitating the structured conversations. Booth credited the moderator with “[playing] a central role in sustaining knowledge sharing within the community” (p. 13). She acknowledged that technology “supported and contributed to participation” (p. 20) but did not provide data to illustrate how this occurred. One clear distinction between her study and mine was that participation in NELN was by invitation only (e.g., state teachers of the year, Milken educators). One of the teacher leaders explained that “not every community can be just open to anybody that wants to jump in” (p. 11). In contrast, #sschat was open to anyone including people who had never taught (e.g., students, pre-service teachers, content providers). Additionally, participants were encouraged to invite friends to participate in the synchronous #chat sessions.
Table 5.8

*Characteristics of Synchronous #chat Sessions*

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Structured Conversations (Booth, 2012)</th>
<th>Synchronous #chats in #sschat Affinity Space</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focus</td>
<td>“the big meaty teachers topics”—things they knew teachers could “talk until dawn about.” (p.10)</td>
<td>Topic was likely to be relevant to participants (e.g., event, pedagogical issue, someone perceived as having expertise in the field). Participants were able to suggest topics via the sschat website</td>
</tr>
<tr>
<td></td>
<td>“begin with overarching question or issue of focus” (p. 19)</td>
<td></td>
</tr>
<tr>
<td>Guidance</td>
<td>“proceed according to a pre-determined set of guidelines” (p. 19)</td>
<td>Followed a set of practices that are regularly found in Twitter chats (Carpenter &amp; Krutka, 2014) (see previous subsection for more discussion of the role of practices in #sschat)</td>
</tr>
<tr>
<td>Facilitator</td>
<td>Paul was the “community’s creator and sole moderator” (NELN, p. 13)</td>
<td>Co-leaders, co-moderators, guest hosts posted questions and facilitated discussions</td>
</tr>
<tr>
<td></td>
<td>“Henry believed that his role was less about directing the conversation in the community and more about setting and maintaining the tone” (ETOC, p. 14)</td>
<td></td>
</tr>
<tr>
<td>Time</td>
<td>“take place during a bounded timeframe” (p. 19)</td>
<td>Lasted for one hour</td>
</tr>
<tr>
<td>When</td>
<td>Not mentioned</td>
<td>Occurred the same day and time (contributed to findability)</td>
</tr>
<tr>
<td>Participants</td>
<td>“Teacher leaders were then hand-picked for the invitation-only event based on the belief that they would contribute to the conversations in meaningful ways” (NELN, p. 10)</td>
<td>Anyone was able to participate in the synchronous #chat sessions (e.g., pre-service, novice, veteran and retired teachers, administrators, teacher educators, content providers, authors, non-profits)</td>
</tr>
<tr>
<td></td>
<td>“Membership was open to anyone but required registration” (ETOC, p. 7)</td>
<td></td>
</tr>
<tr>
<td>Software</td>
<td>No mention of software used</td>
<td>Twitter and its affordances contributed to/facilitated/fostered a highly interactive environment</td>
</tr>
</tbody>
</table>
In my view, the “structured conversations” described by Booth (2012) did not fully capture what was happening in #sschat during the synchronous #chat sessions because the emphasis in Booth’s study was on how the moderator of these sessions structured the experience rather than on how digital technologies provided the infrastructure (the means) for participants to share their ideas, experiences, and resources. My data suggests that there was no need for a leader to set guidelines or norms because globally accepted practices for Twitter chats—created to take advantage of the affordance inherent in Twitter—were adopted by the participants in the #sschat affinity space. This convention struck me as particularly helpful given the fact that the majority of #chats were moderated by a guest host rather than the same “leader” each time. My data supported findings from other studies that showed that digital technologies—rather than a set of guidelines or prompting by a leader—can and often do support a highly interactive, fast-paced environment that provides an opportunity for everyone’s voice to be heard and for collaborative practices to take place (see, for example, Curwood & Biddolph, 2016; Carpenter & Krutka, 2014).

In addition to digital technologies being leveraged to provide the infrastructure for a wide range of interactions within the #sschat affinity space, they also appeared to be useful in attracting participants and encouraging participation. A core understanding of affinity spaces is that participants are attracted and interested in these spaces because of their shared passion or interests. Gee did not consider, however, how participants were attracted to this space for the first time or how they learned of other portals beyond the ones that they interacted in regularly. Jenkins and colleagues (2009) was similarly silent
on this matter in his explication of participatory cultures. Given the research question that guides this study—what can be learned in online spaces such as #sschat to inform and shape more formal professional development—it is appropriate that I turn to other researchers to try to understand how digital technologies aided in attracting participants and encouraging their participation.

Hagel and colleagues (2012) found in their study of online spaces that participants were attracted to spaces because of their shared interests and the possibility of access to “rich flows of knowledge” (p. 221). They argued that there was a need to continually attract new participants to these spaces who would bring diverse ideas with them; potentially enriching and supporting knowledge flows across human networks within (and beyond) these spaces. The use of digital technologies to craft unique #chat invitations likely served this purpose. For example, the creation of logos (brands) for each of the specialized #chats helped to make them recognizable and set them apart from the hundreds of other #Twitter chats that educators might choose to participate in. Hagel and colleagues suggested that “teasers” are often used to sustain interest among participants. In the case of #sschat, co-leaders/moderators used digital technologies to craft #chat invitations that included clever word play or recognizable imagery; likely as a way to promote a sense of eagerness or curiosity that would attract participants to an upcoming #chat session (e.g., cozy-looking Adirondack chairs in front of the lake). Further, the use of the retweet feature (by co-leaders/moderators and participants) increased the frequency that the #chat invitations appeared at the top of the respective #chat Twitter feeds thereby increasing the likelihood they would be seen by participants.
with diverse experiences and potentially innovative ideas. This approach was very different from what happens in other academically documented online spaces that restricted participation to educators who had received national recognition or were designed only for educators of a particular country (e.g., Booth, 2012; Curwood & Biddolph, 2016, Duncan-Howell, 2010; El-Hani & Greca, 2013; Sari & Tedjasaputra, 2013; Pino-Silva & Mayora, 2010; Thang et al., 2011; Tseung & Kuo, 2013). Hagel and colleagues proposed that bringing in diverse perspectives, including participants that might have different types of experiences (not teachers in this case), may be valuable because they can potentially lead to new ways to think about how to approach a task or challenge. “This is not an information age. It’s an age of communication, of collective intelligence, of major collaboration, of major participation” (Tapscott, 2013, para 15).

The digital technologies (social media) used in #sschat provided a platform that was able to support “major participation” because it did not have any restrictions on the number of participants that could participate. Further, extending invitations to people all around the world increased the possibility of attracting participants who have had diverse experiences that could challenge notions of “standardization” (so popular in this age of educational reform) and bring new approaches into the collegial discussions that occurred within #sschat. This is very different from what happens during school/district-wide professional development sessions where the same people who teach together on a daily basis are put in groups to talk about how fidelity to a textbook series will result in change their instructional practice without the benefit of hearing from practitioners from other schools that might have different experiences that they could leverage or adapt. My data
supported other studies which found that a common activity in online spaces for educators is to engage in professional discussions regarding content-specific instructional practices and current trends in the content area (Booth, 2012; Curwood & Biddolph, 2016; Carpenter & Krutka, 2014; Duncan-Howell, 2010; El-Hani & Greca, 2013; Tsai, Laffey & Hanuscin, 2010; Wesely, 2013; Zuidema, 2012).

The creation of two websites in the #sschat affinity space that acted as central hubs is another example of how digital technologies were leveraged. Hagel and colleagues posit that “findability” is a critical aspect of any online space that seeks to provide rich knowledge flows. The websites served a valuable purpose in providing logistical information about the various synchronous #chat sessions. In addition, they provided links to all the archived #chats. The websites also provided awareness of and access to the multiple portals that comprised #sschat. Unlike typical professional development, the #sschat affinity space provides a wide range of experiences in which participants can engage with others (who aren’t all necessarily teachers) in relation to social studies education. For example, participants could engage in discussions about professional practice, synchronously and/or based on their needs and interests. While access to multiple portals is a common feature of affinity spaces (Gee, 2005, 2007; Gee Hayes, 2010, 2012, Haynes & Duncan, 2012), most professional development sessions provide only one way for educators to engage about a particular topic. The two websites mentioned earlier also served a valuable function by drawing attention to the multiple pathways for participants to engage with others interested social studies education (e.g., daily Twitter feeds, synchronous #chats, Facebook page, blog posts, suggesting chat
topics). The websites perform a similar purpose to a program book at an educational conference. Both provide useful information about where to find a session (e.g., #sschat) and the time when it occurs (e.g., every Monday night at 7pm EST).

Looking closely at my findings it is apparent that the concept of the “collective” has useful explanatory power for talking about how digital technologies in combination with the participants’ practices facilitated the sharing of knowhow and experiences. In doing so, I draw a distinction between a more macro and more micro “view” of this concept (i.e., Big C Collective and little c collective) which I discuss in more detail below. This kind of distinction drawing has any number of precedents in the academic world. Gee, for example, drew a useful distinction between little “d” discourse and big “D” discourse as a way to differentiate between the practices that are adapted by a particular group of people and the language used within these practices. As described in Chapter 2, practices (in this sense) concern the ways of doing and being associated with a group of people such as their clothing, and use of language (sayings, slang). In a similar way, Kramer and Beghetto (2009) developed a four C model of creativity (big C, little c, mini-c and pro-c) as a way to distinguish between the idea of creativity in everyday life, creative insights that are a result of experiences/events, creativity associated with a profession/community, and individuals who have been credited with being creative geniuses. These precedents are useful because they help me to draw a distinction between little “c” collective and big “C” collective. As such, little c/big C help us to understand/explain the interplay among the digital technologies, practices, and participants’ ideas, experiences, and knowhow; and, how they collectively contribute to a
participatory environment. In the same way that little “d” discourse focuses attention on the language aspects of a conversation, I propose that little “c” collective represents the “collective” of digital technologies (see Table 5.6) that were leveraged to provide the infrastructure for the various portals within #sschat (e.g., Twitter, Facebook, Storify) that attracted participants, encouraged participation (e.g., #chat invitations, websites), and enabled multi-modal posts on Twitter and Facebook. Big “C” denotes the “Collective” knowhow and practices that participants brought to the #sschat affinity space (e.g., ideas, experiences, resources). Thus both the little “c” and big “C” c/Collective are integral parts of the #sschat affinity space. They are interconnected and interdependent, too. By that I mean, the Collective (big C)—the participants, practices, knowledge and knowhow that was brought in and constructed during the interactive experiences (by means of various portals) in #sschat—was made possible by a collective of digital tools (little c) that had a low barrier to participation and which supported a wide range of interactions (e.g., chatting with a purpose, mini-discussions, collaborative planning, asynchronous experiences, sharing resources). What this C/collective distinction adds to the literature about teacher education/teacher development, I propose, is that it is the combination of teacher knowhow and experiences, along with digital technologies and the associated practices that contribute to a space that is conducive to teacher learning.

Chapter Conclusion

In this chapter, I closely examined the role that digital technologies played in #sschat over the course of my study. I found that the combination of digital technologies, practices, and participants’ knowhow contributed to creating a participatory environment
that promoted collaborative practices, fostered the cross-pollination of ideas, and allowed for a distributed approach to leadership roles. In the next chapter, I examine the factors that contributed to sense-making when participants engaged in a participatory environment to discuss professional practices related to social studies education.
CHAPTER 6 SOCIAL INTERACTIONS: PERSONAL AND PROFESSIONAL

In Chapter 4, I considered how diverse experiences and needs of the participants seemed to affect the interactions that occurred in the #sschat affinity space. In Chapter 5, I argued that the combination of social media platforms and functions, participants’ knowhow and experiences, along with their practices appeared to contribute to a participatory environment that facilitated a wide range of interactions in support of social studies education. In this third chapter focused on findings, I closely examine participants’ interactions during the synchronous #chat sessions. The question that guides this study asks what happens in online spaces for educators, such as #sschat, that can help shape and inform more formal professional learning. Thus, I wondered if there were aspects of the #sschat affinity space that educators might consider important beyond those features already documented about effective professional development (e.g., sustained over time, active experience) (see Desimone, 2009; 2011a; Desimone et al., 2013; Desimone & Garet, 2015; Guskey & Yoon, 2009; Hill, 2009; Opfer & Pedder, 2011.)

Teacher development/teacher learning is a continuous process that needs to be attended to over time (Cochran-Smith et al., 2015; Feiman-Nemser, 2001, Knobel & Kalman, 2016; Riordan & Klein, 2017; Taylor et al., 2014). I use the word social in this chapter to emphasize how learning happens through collaborative interactions with other people and not something that happens alone in one’s head. That being said, I make no claims that #sschat participants are learning during their interactions in this affinity space. Nonetheless, the participants themselves regularly mentioned “learning” as a part of their
experiences in the #sschat affinity space (e.g., “I really enjoyed learning with you all tonight. So much food for thought. It is inspiring to have such a great #PLN [personal learning network] with #worldgeochat we are all in this together”). Although a discussion of what “learning” is goes beyond the focus of this study, it is worth noting that within the context of #sschat, the idea of “learning” can be thought of in two general ways. For example, “learning,” as evidenced in the tweet above, could be conceived of as becoming familiar with an instructional strategy (e.g., think, pair, share) or gaining knowledge of an instructional approach (e.g., genius hour\textsuperscript{42}). Another way of thinking about learning, in my view, and, the type of “learning” that appears to be the goal of what has been deemed as effective professional development (see Desimone, 2009; 2011a; Desimone et al., 2013; Desimone & Garet, 2015; Guskey & Yoon, 2009; Hill, 2009; Opfer & Pedder, 2011) involves a deeper type of meaning-making that includes shifts in the “the acquisition and enactment of new identities, practices, social relationships” (Lankshear & Knobel, 2011) that are a result of social engagement. In many school or district-based professional development experiences, what educators are to “learn” is often determined by other people (e.g., administrators) and not the individuals that are the focus of the experience. In affinity spaces, participants’ interests or passions are what drive the learning process in terms of becoming better at something (e.g., better fan-fiction writer, better video game designer) (Black, 2008; Curwood, 2013; Curwood et al., 2013; DeVane, 2012; Duncan, 2012; Durga, 2012; Gee, 2005, 2007; Gee & Hayes, 2010, \footnote{Genius hour (also known as 20% time) refers to a class (or part of a class) which is structured such that students have the opportunity to explore their own passions and was the focus on this monthly #engsschat session.}
2012; Hayes & Lee, 2012; Lammers, 2012; Lammers et al., 2012; Lewis, 2014; Magnifo, 2012). Two researchers in the field of teacher education, Riordan and Klein (2017, para. 16), argue convincingly that “‘better’ teaching is not instinctive” and, as such, needs to be nurtured and consciously developed. My analysis of the interactions that occurred in the #sschat affinity space certainly supports this claim and the following discussion centers on the idea that participants appeared to engage in #sschat because they wanted to know more about teaching and wanted to support others in their quest for this type of knowledge; and, potentially, becoming “better” in their respective educator roles.

In this chapter, I examine the experiences that likely contributed to attracting and maintaining the interest of participants who voluntarily engaged in the #sschat affinity space. I explore the synchronous #chat questions as a way to understand the type of topics that seemed to be important to participants who were interested in social studies education. I consider how a collaborative approach appeared to foster participants’ sharing their knowhow and experiences, provide opportunities for reflective thinking, and facilitate role-shifting. I conclude with a discussion of how the findings regarding participants’ social interactions within (and, by implication, beyond) an online affinity space relate to the literature regarding professional development.

**Professional Learning Is Personal**

As a reminder, I make no claim about participants’ learning during their interactions within the #sschat affinity space. None of them were interviewed about their learning for this study, and learning itself cannot be parsed from Facebook posts and Twitter texts posted online. But, as will be discussed in this chapter, participants
appeared to participate in #sschat for the purpose of engaging in the types of experiences that are commonly associated with professional learning (e.g., collaborative discussions, reflection, mentoring). Therefore, in this section, I present three key findings from my analysis that strongly support my claim that professional learning is deeply personal. My findings strongly suggest that spaces that foster professional learning often enable participants to choose with whom they interact and can promote nurturing behaviors. In the case of my study, the first pattern I discuss concerns with how participants appeared to take responsibility for their learning and wanted to engage with others who appeared to share similar ideas about professional learning. The second involves the types of behaviors participants exhibited that gave the impression that it was important to be friendly and care about the people with whom they interacted in the #sschat affinity space. The third indicates that participants wanted their interactions in #sschat to be an enjoyable experience. Enjoyable, in this sense, means to have fun or take pleasure in doing something or view an activity as being entertaining. Needless to say, it is impossible to claim with any certainty whose responsibility #sschat participants thought it was to ensure that they have opportunities to learn what was needed to support them in their roles related to social studies education without specifically asking them about their professional learning experiences. That being said, the fact that #sschat participants “opted in” (voluntarily engaged in) to the #sschat affinity space suggests that they wanted to engage with others who shared their interest in social studies education and promoted—to vary degrees—the nurturing actions exhibited by other participants. (This assumption is very much in keeping with extant research on spaces using social media in
relation to teachers’ professional engagement; see, for example, the work of: Booth, 2012; Carpenter & Krutka, 2014; Forte et al., 2012; Krutka, 2017; Pino-Silva & Mayora, 2010; Rodesiler, 2014; Rodesiler et al., 2014, Sari & Tedjasaputra, 2012; Wesely, 2013.) I intend to hold off any discussion regarding specific patterns identified in this section until the end of this section because it is the combination of these “social” actions that are very personal in nature that define the #sschat affinity space.

**Being Social**

In addition to voluntarily participating in #sschat, participants demonstrated their interest in engaging in experiences with other professionals in the following ways. A close examination of participants’ Twitter profiles suggests that they intended to craft them in ways that would signal their proclivity towards learning. For instance, participants often used some form of the word *learning* to describe themselves (e.g., “life-long learner,” “learning,” “always learning”) as well as included the names of participant-driven events (e.g., “EdCamp Boston & EdCampBLC Organizer”) and/or other Twitter synchronous #chats geared towards educators (e.g., “TLAP [teaching like a pirate],” “BF530[before 5:30AM],” “inquirychat”) and that are readily associated with learning to be “better”. Much in the way that I argued in Chapter 5, the unique #chat invitations posted to Twitter or to Facebook appeared to be designed to “brand” the various #hashtags associated with the #sschat affinity space (e.g., patriotic color scheme for #hsgovchat, two generic people pushing puzzle pieces together for #engsschat), a close analysis of the data suggests that the participants intended their profiles to “brand” them as individuals who assumed responsibility for, or were invested in, their own
learning. The fact that Twitter profiles at the time of my study are limited to 160 characters and some participants included information related to their interest in learning suggests that it was an important aspect of their life that they wanted to highlight for others to see.

In addition, #sschat participants regularly posted comments—for the whole world to see—that gave the impression that they were looking forward to engaging in discussions with other professionals regarding topics related to social studies education. For example, participants appeared to express their enthusiasm for specific online chats (e.g., “specifically did not wash the dishes yet. doing that in between #worldgeochat and #7thchat”) and seemed to emphasize their appreciation for the collaborative nature of the synchronous #chats (e.g., “I can't wait to learn from my PLN [personal learning network] tonight on #sdedchat and #worldgeochat !!!!!”). And, at the end of the #chat session, participants regularly posted comments that seemed to indicate that they found the experience to be valuable (e.g., “I'm always inspired by awesome educators sharing great ideas. Thanks to my awesome #PLN for being rock stars #engsschat #engchat #geniushour”).

Of complete surprise to me were the announcements that the participants made that they would not be attending a #chat session or planned to lurk (e.g., “Hi #worldgeochat! Megan from The Bahamas mostly lurking from behind a stack of grading tonight”). In each of the nine synchronous #chats that took place during my one month study, at least one participant announced that he/she would not be attending the session for the full-time. An analysis of these announcements and the surrounding interactions
suggests that participants may have wanted to signal that they would not be posting comments during this session but wanted it to be known that they were intending on continuing to (actively) participate in future #chat sessions.

A close analysis of the data suggested that #sschat participants interacted with each other much in the same way that family or friends who care about one another do. Indeed, the #sschat affinity space mission statement seemed to suggest its intentions to be a nurturing space (e.g., “It's a group of dedicated social studies educators and enthusiasts who are on a mission...[to] support others in personal and professional growth in order to improve delivery of instruction to our students.”) In actuality, participants took time during the fast-paced, highly interactive chats (e.g., on average seven tweets per minute) to welcome participants and inquire about one another and ask about their family the way old friend might, as shown in Figure 6.1.

| Tweet 1: @classroomtools Yes, Hi, Bill. Good to see you here. Hope you're well. 

#sschat |
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Tweet 2: @Ron_Peck I am, and hope the same for you and your family, Ron. #sschat</td>
</tr>
<tr>
<td>Tweet 3: @classroomtools Yes, family and I are doing quite well. Thanks. #sschat</td>
</tr>
</tbody>
</table>

*Figure 6.1.* Participants exchange social pleasantries at the start of a synchronous #chat session.

In addition, #sschat participants were welcoming to newcomers. For instance, after I shared information that I worked for the department of education during the introduction phase of a synchronous #chat (September 28, 2015), a participant publically broadcasted to the entire group that he thought it was good for someone in my position to
be part of the discussion (e.g., “Love seeing state level people here”) even though I might be perceived as someone with institutional authority (e.g., I posted: “I'm the social studies coordinator at the state department of education”). In a similar way, it appeared that participants tried to make connections to experiences pre-service teachers had as a way to perhaps help them feel comfortable engaging with other more experienced teachers. By way of example, after one pre-service teacher posted the name of college he was attending (e.g., “Hi Matt from Greensboro NC, preservice teacher. #sschat #TED554”), a participant responded that there were many folks at his school from that college and another participant acknowledged that he had gone through the same program (e.g., “All your #TED554 folks give my best to Dr Journell, assuming he's still teaching the course....former student here #sschat”).

#sschat participants also appeared to demonstrate their concern about each other’s well-being in other ways. For example they appeared to be understanding when participants announced they were not able to attend a #chat session (e.g., “Always good to have your eyes on the conversation, Andrew. grading comes first. #worldgeochat”), to show concern when they were faced with dangerous weather conditions (e.g., “@GeoPenny Unreal! Stay safe!” posted in response to imminent storm) and seemed to show compassion when participants shared struggles they were having in school (e.g., TWEET). I found these interactions interesting because, again, they took place during the fast-paced, highly interactive synchronous #chat sessions and were public for everyone (in the world) to see—and yet seemed very personal and intimate at the same time. Typically, people exhibit these types of person-focused behaviors when engaging
with friends in private conversations.

**Having a Good Time**

Further analysis of the data strongly suggests that #sschat participants appeared to make interactions around social studies education an enjoyable experience. Enjoyable, in this sense, means to have fun or take pleasure in doing something or view an activity as being entertaining. This was often done through instances of word play or by posting clever, witty comments that signaled a sense of humor or seemed designed to evoke a humorous response from others. In Chapter 5, I discussed several examples of attractive and, very often, clever #chat invitations which I claimed were quite amusing (e.g., differentiated instruction #chat invitations with a tic-tac-toe task sheet, toolbox, puzzle pieces).

<table>
<thead>
<tr>
<th>Facebook post 1: Historical gaming!</th>
</tr>
</thead>
<tbody>
<tr>
<td>Here it is. In all of its pixelated glory. You probably have spent countless hours playing this gem. Now you can do it some more.</td>
</tr>
<tr>
<td>Is anyone up for a contest?</td>
</tr>
</tbody>
</table>

| Facebook post 2: Sorry, can't play. Recovering from dysentery and a snake bite.... |

*Figure 6.2.* Participant provides witty response based on video game’s historical context.

As shown in Figure 6.2 (above), participants also commented on Facebook posts with responses that were likely viewed as clever by other social studies enthusiasts who would probably be familiar with the computer game and the hazards of the time period in which the game took place (e.g., “Recovering from dysentery and a snake bite....”).
Arguably, the inclusion of a “drinking game” in the synchronous #worldgeochats sessions that poked fun at the “regular” responses that certain participants brought up in response to a #chat question serves as a useful example of the intentionality to make engagement around social studies education an enjoyable experience. For example, @GeoSpiegs, who referred to himself in his Twitter profile as a “GoogleEarth wonk,” frequently provided references to Google Earth in his responses (e.g., @GeoJo22: “Could GoogleEarth be part of that?”). Participants appeared to show approval of this type of “gentle” teasing by liking the post depicted in Figure 6.3 (above), or by showing they
were prepared for participating in the game (e.g., “lemonade at hand”), and indicating that it was amusing event (e.g., “LOL. Too funny!!”). While this “made up” game was rather unorthodox, it suggests participants wanted to have a good time while they were engaged in a fast-paced, interactive discussion about topics related to teaching social studies.

Figure 6.4. An image associated with the popular sitcom “Friends,” was edited and used to encourage #sschat participants to invite their friends to participate in future weekly synchronous #sschat sessions.

As a final example, the post above (see Figure 6.4) appeared to suggest that professional engagement around social studies education would be more enjoyable with people that knew and liked being with (e.g., #SSCHAT IS BETTER WITH FRIENDS”). This image was posted to the #sschat Facebook page and during the weekly #sschat synchronous sessions. The use of an empty couch in combination with the words,
“INVITE THEM,” suggests that participants were encouraged to recommend #sschat to people with whom they enjoyed spending time. Moreover, the dark background, the lampposts in the street, and the tall lamp (all turned on) along with the abbreviation, 24/7, infers that this space was open for engagement all night long which was particularly useful given #sschat participants were from all around the world in different time zones.

Fundamental to the conception of affinity spaces is the understanding that participants are attracted to these spaces because of their shared passion (Curwood, 2013; Curwood et al., 2013; Gee, 2005, 2007; Gee & Hayes, 2010, 2012; Hayes & Duncan, 2010; Lammers, 2010; Lammers et al., 2012; Magnifico, 2012). The #sschat affinity space certainly seemed to attract participants interested in social studies education. My analysis indicates that #sschat participants also appeared to engage in specific actions that affected how the participants engaged in interactions related to social studies education. These practices appeared to include being a self-directed learner and wanting to engage with others who took responsibility for their own learning, showing care to other participants in the #sschat affinity space, and ensuring that interactions related to social studies should be enjoyable.

My findings are in line with those of previous studies of shared online spaces whose authors noted a sense of camaraderie (Carpenter & Krutka, 2014; Hur & Brush, 2009; Krutka & Carpenter, 2016). Indeed, the use of nicknames (e.g., “geopeeps,” “#worldgeochat’rs,” “#sschat'ers”) made up and used by participants suggests that they may have felt a sense of belonging to the #sschat affinity space. Gee and Hayes (2012) contend that a feeling of belonging based on a shared passion and practices is commonly
found in affinity spaces (see also Curwood, 2013; Curwood, et al, 2013; Gee, 2007; Gee & Hayes, 2010, 2012; Hayes & Duncan, 2010; Lammers, 2010; Lammers et al, 2012; Magnifico, 2012). Interestingly, however, other studies of online spaces involving educators who voluntarily participate reported that moderators had to assume the role of sheriff (Booth, 2012) or referee (Pino-Silva Mayora, 2010) to make sure participants acted in ways that would enable everyone to feel comfortable. The professional development literature is full of recommendations regarding the use of conduct-focused protocols as a way to promote collegial conversations, build a culture of trust, and keep the discussion focused on the objectives (Hargreaves, 2015; McDonald, Mohr, Mc Donald, 2013). The data from my 30 day study suggests that sheriff-roles and protocols may not be the only approach to accomplishing those goals. Some affinity spaces where participants are kind and supportive to one another are known as nurturing spaces. Gee and Hayes (2012) contend that “shared passion can lead to good behavior if everyone sees that spreading this passion…requires accommodating new members and encouraging committed members” (p. 10). In my discussion of the data above, I provided several examples of participants welcoming newcomers, being friendly, and sharing concern suggesting that #sschat was a nurturing affinity space. As such, protocols did not appear to be needed to control #sschat participants’ behavior because they appeared to be motivated by their own desire to make #sschat a welcoming space for anyone interested in interacting in topics related to social studies education.

The intentional actions by participants to make interactions in the #sschat affinity space enjoyable were an unexpected finding. It is conceivable that these behaviors were
intended to contribute to creating nurturing environment. Another possible explanation for this is that participants were attempting to attract new participants who appreciated their efforts to be clever and innovative. Hagel and colleagues (2012) assert that some people have dispositions in which the “unexpected is exciting — it represents an opportunity to innovate, learn, and push our performance to new levels” (p. 118). It is conceivable that #sschat was looking to attract such people who have potentially valuable information and experiences to share with the affinity space.

While it would not be appropriate to draw generalized conclusions based on the findings from my small study, they do help us to understand that not all educators are going to want to engage in the same type of professional learning experiences. In the case of #sschat participants, engaging in interpersonal relationship behaviors (e.g., being welcoming and friendly, showing concern) and having a propensity for fun or to make other people laugh appeared to be important aspects of what they wanted in their professional learning experiences. To be sure, I am not suggesting that professional learning experiences have to be fun. But, rather educators are likely to have diverse ideas about the types of experiences and the kinds of relationships established therein that will attract them to attend.

**Teaching for Social Change**

A close analysis of the data strongly suggests that the #chat sessions during the time of my study went beyond discussions about content knowledge to conversations about the types of learning experiences that engaged students in critically examining the past and prepared them to confront the status quo. Some social studies teachers believe
their responsibility is to help students develop an appreciation for our country’s history, government, and societal values (Ross, 2000) and are not interested in challenging the dominant viewpoints passed on through textbooks and curricula. In contrast, the data from the synchronous #chats showed that #sschat participants appeared to want to collaborate with others who: (a) resisted transmission models of education that filled students with knowledge as determined by dominant groups; (b) desired to prepare students to challenge social inequities; and (c) questioned the extent to which technology could be viewed as a “‘great equalizer’ in education.”

**Chat Topics and Questions**

An examination of the #chat topics and questions (see Appendix B), suggested that participants were *not* interested in talking about a traditional view of teaching where the teacher’s role was to pass on a singular set of facts to be consumed by students in an efficient manner. As a point of illustration, the synchronous #chat that took place on Columbus Day was called *Changing Attitudes Toward One-Time Heroes* and appeared to be designed to encourage participants to reflect upon the “history” that is typically portrayed in textbooks (i.e., the dominant perspective in education) and consider the types of learning experiences that might be created to enable students to have opportunities to determine their own interpretation of what *really* happened by examining historical accounts for themselves.
<table>
<thead>
<tr>
<th>Tweet 1</th>
<th>Q1: It’s Columbus Day; How do you discuss Columbus and his role in your classrooms today?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tweet 2</td>
<td>A1 I wish I had more time to dispel the myth of Columbus.</td>
</tr>
<tr>
<td>Tweet 3</td>
<td>A1 It seems important to teach the different perspectives people have of him, what he did and let students decide what think #TED554</td>
</tr>
<tr>
<td>Tweet 4</td>
<td>We also put him on trial. We arm them with primary sources and then set them loose</td>
</tr>
<tr>
<td>Tweet 5</td>
<td>A1 I think it should be discussed since it is an important event, but the Native American's side should be represented too #TED554</td>
</tr>
<tr>
<td>Tweet 6</td>
<td>A1: we watch some old Columbus Day cartoons and then use the rethinking Columbus trial role play - then ss [students] write about whether or not he deserves the holiday using primary and secondary sources</td>
</tr>
<tr>
<td>Tweet 7</td>
<td>The only time Columbus makes it into my class is while discussing background on the Haitian Rev. He comes off rather poorly</td>
</tr>
<tr>
<td>Tweet 8</td>
<td>A1: I used to compare our textbook, Zinn, and the Willard textbook from the 1870s</td>
</tr>
<tr>
<td>Tweet 9</td>
<td>Q2: Do Ss [students] think we should drop the name of the holiday?</td>
</tr>
<tr>
<td>Tweet 10</td>
<td>A2- most of my students want to keep the holiday, but they almost all want to rename it. They also get mad at previous teachers</td>
</tr>
<tr>
<td>Tweet 11</td>
<td>The Ss [students] always feel bad they realize what followed Columbus, but also balk at the idea of giving the land back.</td>
</tr>
<tr>
<td>Tweet 12</td>
<td>...not sure we should make Ss [students] feel guilty about what happened 500 years ago either.</td>
</tr>
<tr>
<td>Tweet 13</td>
<td>Like it or not, many of us are here bc [because] of the age of exploration he started, the name of the day is part of that history</td>
</tr>
<tr>
<td>Tweet 14</td>
<td>Q2 Some of mine were confused as to why we still had it if his impact result in the death of so many Natives</td>
</tr>
<tr>
<td>Tweet 15</td>
<td>I think it would almost be silly to drop the name of the holiday - but we need to teach all the story. #sschat #TED554</td>
</tr>
<tr>
<td>Tweet 16</td>
<td>That is true - but there is something to be said for tradition.</td>
</tr>
</tbody>
</table>

*Figure 6.5.* A selection of tweets showing a range of ideas around teaching about Columbus.

In response to the first #chat question above (Tweet 1), I have selected seven of the 18 responses (that were posted on #sschat) to demonstrate that #sschat participants varied in how their students were currently learning—or in the case of pre-service teachers (Tweet 3 and 5) would teach—about Columbus. Each response appeared to promote a critical stance as a way for students to examine whether “one-time hero” was
an accurate portrayal of Columbus’ action. Some #sschat participants brought in primary sources (e.g., “sources from Las Casas”), secondary sources (“compare our textbook, Zinn, and the Willard textbook from the 1870s”), and contemporary sources (e.g., “the Simpsons”) and then designed learning experiences that required their students to go beyond “reading” about history from a textbook to engaging in the work of historians and doing their own analysis of primary and secondary (e.g., “We also put him on trial. We arm them with primary sources and then set them loose”).

It cannot be determined from the data I collected for this 30 day study if all #sschat participants shared these same perspectives regarding “changing attitudes toward one time heroes” or if any participants changed how/what they taught based on their participation in this #chat session. What can be said is that a range of approaches were brought to light that could be used by #sschat participants who were interested in challenging the dominant perspective on what are, in reality, complex issues because of the many divergent points of view held on these topics (e.g., presidents who were slaveholders, flying the Confederate Flag—just two other examples from my data). For pre-service teachers (e.g., those using #TED554 to signal their coursework affiliation) who were learning about teaching from a critical stance in their teacher prep program (e.g., “I’ve seen this the Simpsons used effectively in my Social Studies Methods course!”), participating in this synchronous #chat enabled them to hear first-hand from practicing teachers who were using similar types of resources and activities with their middle and high school students.

A review of the #chat questions in the data collected for this study appeared to
suggest that there were many ways to craft lessons that provided opportunities for students to confront issues of power and privilege. For example, looking holistically at all the #chat questions that were posed during my study gave the impression that they were not phrased to suggest that there was a single right way to teach (e.g., best way) or even that some ways are better than others (e.g., best practices). Nor did they seem to be written to debate whether teaching social studies should focus on an appreciation of U.S. history according to traditional beliefs and values or take a more contemporary view that focuses on teaching (critical thinking or historical process) skills using content as a vehicle.

Asking questions such as “What controversial topics do you teach in your classroom? Why do you choose those topics?” acknowledged there could be multiple answers and various pathways to teaching students about or within these topics.

Additionally, #chat questions were phrased in a manner that privileged the participants’ unique experiences (e.g., “you teach,” “your classroom,” “your students”) and acknowledged that some teachers could be decision-makers and challenge long held beliefs about what students should and should not be taught in schools. Moreover, asking a question such as “There is a move to add a woman to the ten dollar bill. Many argue that Jackson should go instead. Is this a topic for you?” (my emphasis) implied that participants were in the position to make decisions about what they taught based on such factors such as their professional expertise or community expectations. For example, one participant noted, “I teach in a very conservative area & they constantly watching and complaining if anything varies from what they ‘know’”. The idea that community values influenced what was taught in schools was discussed several times during the Changing
Attitudes Toward One-Time Heroes and Controversial Issues #chats. For example, the data indicated that geographic location often determined what a teacher felt comfortable teaching (e.g., “What some would call traitors, other (here in VA for example) call "patriots" -- teachers here tread a fine line ....”). Arguably, for the pre-service teachers who participated in the #sschat affinity space, developing an awareness of the important role that community values can play in teaching about controversial issues was likely to be useful to know before they began to teach about historical events such as the Civil War/War of Northern Aggression (e.g., “Depends on what part of VA you live/work/teach. Richmond, capitol and rural areas defend, most cities do not!”).

Preparing Students to Challenge Social Inequities

A close analysis of the data strongly suggest that many #sschat participants thought it was their responsibility to prepare students to confront social injustices that affected contemporary global societies. For instance, the responses posted during the Geographic Questioning #chat session appeared to suggest that #sschat participants wanted to shift the responsibility of asking questions from the teacher to the student. This “shift” in ownership of the questions asked in social studies classrooms changed the design of lessons from knowing a single “correct” answer to helping students develop an inquiry stance as a way to make meaning of the complex world we live in (e.g., “Ss [students] need to be able to question what they read & see”). For example, in response to the question, “What techniques/activities do you use to build Ss [students] capacity to develop geographic questioning skills?,” one middle school educator shared a link to his blog about building student curiosity where he discussed that he was “moving away from
(KTW = Know, Think I know, Want to know). This always churns up the same tired stereotypes of African culture and exposes American ignorance of the continent.” It was not surprising to me that simple questions like “what do you know” or “think you know” resulted in stereotypes because the answers relied upon students making generalizations about various groups of people who lived on the same continent as if they all acted and behaved in the same way. This naive way of thinking is likely to happen when students are expected to learn a series of geographic facts without an understanding the sociopolitical issues that affect the people living in a particular place. Several participants suggested using visual images of current events (e.g., “Put up an image or Headline/Image and have Ss [students] pose Q's [questions]”) as a way to encourage students to wonder about what is happening in the world around them. This orientation towards putting the students in the role of investigator and their questions at the forefront was another way educators (#sschat participants) provided opportunities for classroom students to be active in the learning experience.

My analysis of the responses posted during the Vocabulary Strategies #chat (see Appendix B for questions posed) indicates that it was less about how to teach new words and more about helping their students understand the complexities that are inherent in global issues. For instance, words like “Globalization,” “Colonialism,” “Gentrification,” and “Forced Migration” were shared when asked about “MUST know vocabulary for students to think geographically.” These types of words were likely to bring up a variety of social and political issues related to power, privilege, and marginalized groups of people. This #chat was not about using word walls as a way to prepare students for
weekly quizzes. The participants’ tweets appeared to make it clear that this geographic vocabulary #chat was more complex than simply learning definitions or finding places on a map. They seemed to make distinctions about the type of geographic vocabulary that would likely aid students in developing geographic reasoning skills, too (e.g., “not just directions, but ideas,” “not just in the physical world. HumanGeo terms are also important to unpack complex issues like Syria”). For these #sschat participants, the purpose of knowing vocabulary appeared to go beyond understanding texts that students read. The responses suggested that participants wanted their students to be positioned to actively engage in making social changes (e.g., “A2 Motivating Ss [students] to see beyond the word and look to how they will use the concept to improve the world”). The #sschat participants appeared to be interested in preparing their students with the tools (e.g., questioning skills, vocabulary) to understand how individual and political actions impacted the global society.

I have provided examples that illustrate that #sschat participants wanted to engage in discussions about preparing students to confront the status quo rather than focusing on how social studies has been traditionally taught. In schools/districts where teachers are given time during the day to meet in professional learning communities, they typically do not have a choice about with whom they engage and their ideas about what to teach (e.g., controversial issues) and how to teach (e.g., inquiry approach) may be very different. Almost three decades ago, Cochran-Smith (1991, p. 280) posited “teaching against the grain is not a generic skill that can be learned at the university and then ‘applied’ at the school” (original emphasis). She argued then, and continues to argue, that discussions
about teaching against the grain must occur in schools because of its situated nature (Cochran-Smith, 2010). My study lends support to the situatedness of Cochran-Smith’s notion and provides evidence that beliefs and values inherent in a community can influence what is/can be taught in schools. Cochran-Smith claims collaborating with other experienced teachers who share similar beliefs about taking a critical stance against the social inequalities inherent in schooling is essential. However, finding others who share similar beliefs about a teaching stance (e.g., teaching against the grain) in the same school or district may be difficult. My study suggests that digital technologies may be leveraged as a way to connect educators—including pre-service teachers—with others who share similar beliefs about challenging the social and political inequities that are traditionally passed on through educational institutions. In the next section, I present three key findings that concern the type of collaborative approaches that foster participants’ sharing their ideas and experiences, reflective thinking, and role-shifting.

**Collaborative Approach**

Having discussed the diverse experiences that participants brought to the #sschat affinity space in Chapter 4, how digital technologies were leveraged to facilitate a participatory environment where participants were able to share their knowhow and experiences in Chapter 5, the factors that appeared to contribute to creating a nurturing environment, and a glimpse into the types of topics that were the focus of the synchronous #chats earlier in this chapter, I am now ready to present three key findings that strongly support my claim that spaces that foster professional learning often employ a collaborative approach where practitioners’ knowhow and experiences are valued and
shared. The first finding involves how the use of a crowdsourcing approach appeared to make it possible for #sschat participants to benefit from the collective knowhow and experiences of everyone who posted comments during the synchronous #chats. The second finding concerns how designing a collaborative approach and fostering a participatory environment seemed to result in the participants’ ability to build upon each other’s ideas as a way to gain a more nuanced understanding of the challenge or solution. The third involves experiences that appeared to allow participants to move fluidly among a variety of roles (e.g., learner, knower, mentor) as a way to engage in reflective practice.

Crowdsourcing Ideas

A close analysis of the synchronous #chat topics, #chat questions, and tweets suggested that the design of the #chat sessions provided a window into the classrooms of the #sschat participants. In contrast to a transmission model of professional development in which an “expert” tells teachers the best way to address a teaching problem (as described in Kennedy, 2016), the majority of #chat questions asked participants to share their practitioners’ knowhow and experiences (see Appendix B). For instance, the question “Q2 How do you motivate students to ‘want to learn’ geographic vocabulary?” [my emphasis] prompted participants to think about what they did in their classrooms and share their experiences as practitioners. As illustrated in Figure 6.6 below, there were 18 responses directly to the #chat question (Q2) and 16 additional tweets that related to participants’ responses. (For ease of following the discussion, I selected only the tweets that were in response to Q2 to include in Figure 6.6. In addition, I put the response(s) to a particular tweet directly below it and labeled it Tweet # “a,” “b,” etc. to show its
connection, e.g., Tweet 2 and a response listed as Tweet 2a.)

Tweet 1: A2 I like to use @CNNStudentNews and discuss what is going on within that!

Tweet 2: A2 fortunate to have an interactive whiteboard, so we use to play games that reinforce vocab skills #worldgeochat

Tweet 2a: @LFU_MissCox manipulating vocab really helps my Ss #worldgeochat

Tweet 3: A2 I used to have students work in pairs to create Xword puzzles. I took the better clues & answers to make class puzzles. #worldgeochat

Tweet 4: A2 I think it's important to read articles that include the vocabulary and force them to use it when they talk and write #worldgeochat

Tweet 4a: @ParkersGeocats So true! I love suggesting geo themed ideas for our article of the week that we use in our LA classes. #worldgeochat

Tweet 5: A2 Draw, construct, search. Visual. #worldgeochat

Tweet 6: A2 Ss also use their Current Events assignment to build off of their geo vocab too #worldgeochat

Tweet 7: A2 Use vocab in authentic activities - making news reports, writing articles, holding debates #worldgeochat

Tweet 8: A2 #worldgeochat took this photo 2night b/c I knew the geographic conditions were setting up 'just right'. Ss=#ART

Tweet 8a: @GeoSpiegs See. Visual vocabulary. #worldgeochat

Tweet 8b: @GeoJo22 @GeoSpiegs yes!! visual vocab is a fun assignment to do!! they like to draw!! #worldgeochat

Tweet 9: A2 @GetKahoot always engages SS #worldgeochat

Tweet 10: A2 I know I've said it before but @GetKahoot has been a big student favorite & it is so easy to use! Love it! #worldgeochat

Tweet 10a: @ecasey77 @GetKahoot I use it also and Ss love it! They also love creating questions! #worldgeochat.

Tweet 11: A2 besides the required quiz? :) @jmgarnet2003 They get to use cool words in their FRQs and posters- like "morphology" #worldgeochat

Tweet 12: A2 Using more word walls & anchor charts too this year. That daily visual has
definitely increased Ss use of discipline vocab #worldgeochat

Tweet 12a: @ecasey77 I need to make more use of my word wall more than these are the words to do vocab cards 😊 #worldgeochat

Tweet 12b: @ecasey77 My high schoolers even like anchor charts. They make them for test reviews - makes them USE their vocabulary #worldgeochat

Tweet 13: A2 I am going to do a vocab relay tomorrow...well I'm going to try it out and see how it goes #worldgeochat

Tweet 14: A2 thru authentic learning activities such as social media cross-cult exchanges that use prompts making SS use geo vocabulary #worldgeochat

Tweet 14a: @caranowou so true!!! #worldgeochat

Tweet 15: A2 Motivating Ss to see beyond the word and look to how they will use the concept to improve the world #worldgeochat

Tweet 16: A2 Ss also have put vocab on Google Earth w pins and travel stories. #worldgeochat

Tweet 16a: @kconners09 love that idea #worldgeochat

Tweet 16b: @ecasey77 @kconners09 Or create amazing content to tell a story! #worldgeochat @googleearth

Tweet 17: Ed & I started Word Walls last year - PowerPoint slides with a pic & definition. Worked great. #worldgeochat

Tweet 18: A2: #worldgeochat vocab is not just in the physical world. HumanGeo terms are also important to unpack complex issues like Syria

Tweet 18a: @GeoSpiegs as well as geographic perspective. I have my students writing in perspective of a refugee and they need to know how and where

Tweet 18b: @MsIppolito I had students change all the names in an article to people that they knew personally and then reread out loud. #worldgeochat

Tweet 18c: @GeoSpiegs #worldgeochat I read some stories from this book today totally surprised and engaged students

Tweet 18d: @GeoSpiegs refugees are leaving and going to add realism to the story. Plus they have to look into the issues that cause people to flee

Tweet 18e: @GeoSpiegs mentioned HumanGeo before I did :-) Yes, necessary to understand complex world issues #worldgeochat
Of the 18 responses to Q2, only three participant’s responses were similar (e.g., use current events, GetKahoot [an app], word walls) emphasizing that there appeared to many different ways a particular topic might be taught. Overall, the responses generally described actions taken by the teacher (e.g., “I like to use @CNNStudentNews and discuss what is going on within that!”), activities the students completed (e.g., “Ss [students]also have put vocab on Google Earth w pins and travel stories”), and experiences that were done by both the teachers and students (e.g., “Ed & I started Word Walls last year,” “They make them [word walls] for test reviews - makes them USE their vocabulary”). Seven of the responses specifically mentioned the use of digital technologies (e.g., “fortunate to have an interactive whiteboard, so we use to play games that reinforce vocab skills”).

As illustrated in Figure 6.6, there were 16 additional tweets that were posted in response to eight responses to the #chat question (Tweets #2, 4, 8, 10, 12, 14, 16, 18). These tweets helped to provide additional insights with regard to the original posts. For instance, several of the comments affirmed the original suggestion (e.g., “so true”). Other posts added clarifying information about reading articles (e.g., “I love suggesting geo themed ideas for our article of the week that we use in our LA [language arts] classes”). For participants posting responses to participants’ tweets, it was an opportunity to reflect upon how the ideas shared were similar or different from what they did in their
Crowdsourcing is a term used to describe when a large group of people share their ideas to solve a problem or accomplish a task (Surowiecki, 2005). This crowdsourcing approach was interesting for several reasons. On one hand, the structure of each #chat question—along with the affordances inherent in the #chat design (e.g., replies with further clarification)—provided an opportunity for everyone who participated to be exposed to a range of possible ways to design learning experiences related to the topic. #sschat participants likely appreciated seeing a variety of options and then being able to choose the ones they implemented. One participant indicated, “I have gained so many ideas for making my history course more interesting through different instructional techniques, resources, activities, etc.” in response to a question about how #sschat had benefitted her professionally (survey respondent2, 9/28/2015). On the other hand, the phrasing of the question seemed to prompt the participants to think about what they were doing in their classroom; thereby possibly providing an opportunity for participants to engage in the reflective process.

It can be said that in a way, the #chat sessions removed time and space boundaries and allowed participants to take a “virtual” look into the #sschat classrooms to see what was happening. In the case where the ideas shared were similar to what the participant was already doing, it is easy to imagine he/she felt validated in his/her approach because other practitioners were using similar methods. When “seeing” ideas that were different, it is conceivable that being exposed to what other practitioners were doing in their
classrooms may have contributed to participants feeling comfortable taking risks and trying new approaches. One participant noted, “I have become more comfortable with using inquiry and essential questions in my course” (survey respondent1, 9/28. 2015) in response to the question, how has #sschat been beneficial professionally. Having regular access (e.g., synchronous #chat sessions) to a group of participants interested in social studies education who wanted to engage in discussions about their practices and share their knowhow and experiences was likely important for educators who were interested in making shifts in their practices (e.g., “more student inquiry is one shift I am trying to make this year”) and did not have access to these types of experiences in their own schools.

This crowdsourcing approach appeared to be useful when the discussion turned to issues or challenges that participants faced in their roles in schools, too. For instance, one #chat question directly asked participants to share ideas about “challenges…encountered when differentiating instruction.” The responses ranged from targeting issues related to time (e.g., “It takes time for anything worth doing. To train, read data, create leveled resources, etc.”), need for professional development (e.g., “until recently a lack of PD on how to reach Ss [students] that learn differently: dyslexic, slow processing, low working memory”), and shifts in thinking (e.g., “getting Ss [students] to accept that they learn differently from other Ss [students]. Getting parents of those same Ss [students] to understand that, too”). In this case, a crowdsourcing approach was likely to be helpful in two ways. First, by drawing attention to a specific issue, other participants appeared to be able to suggest targeted resources (e.g., “I have (somewhere) a list of 10 minute
differentiation ideas”). Second, participants whose role involved teacher learning and development (e.g., teacher educators, staff developers) or administrators responsible for overseeing teachers were able to read the first-hand accounts of the type of struggles participants appeared to face on a daily basis and, in some cases, the potential solutions other participants offered based on their experiences (e.g., “I’m using that idea in PD I’m doing next week”).

In a similar way, participants asked their own questions and benefitted from hearing from participants with a range of experiences. For instance, during the genius hour chat, one participant tweeted “how do we get beyond the acidic concerns of staff and admin in order to implement our vision?” and five possible solutions were provided in just two minutes. The responses ranged from “let the student achievements speak for themselves !!” to “giving loose guidelines of what I do helped others to organize.” The responses were positive in nature (e.g., “You go, Girl!! ;))” and made it clear that it was the other staff that needed to make the change (e.g., “They have to "let it go"... ;)”). Research is clear that it is difficult for teachers to make shifts in their instructional practice and they need support during the enactment phase (Allen & Penuel, 2015; Darling-Hammond, 2006; Hill, 2009; Kennedy, 2016; Riordan & Klein, 2017; Klein, et al., 2015; Knobel & Kalman, 2016). In this case, five different participants—who had experience implementing genius hour in their own classrooms—shared specific ideas that were actionable while others commiserated and provided encouragement.

My analysis strongly suggests that a crowdsourcing approach served to shine a spotlight on the complexities of teaching. It is likely that the open-ended manner of the
#chat questions (see Appendix B) contributed to participants posting an array of responses rather than seeking to identify a single “correct” answer. As a result, the ideas shared by the participants drew attention to the many components of teaching that educators consider when designing learning experiences. By way of example, in Figure 6.7, the responses to the question about how to “keep emotion to a minimum and good arguments with evidence to a maximum” seemed to illustrate how teaching about controversial issues involves a variety of components that educators attend to in different ways (and some may not at all).

 Tweet 1: Q5: How do you keep emotion to a minimum and good arguments with evidence to a maximum?
 Tweet 2: A5 Stick to the basics: structure, rules, clear expectations... all need to be established first before tackling controversy #sschat
 Tweet 3: A5 needs to be established early, classroom has to be safe environment where Ss [students] can express opinions w/o fear of ridicule
 Tweet 4: A5 - teacher has to spend time at the beginning of the year laying groundwork for healthy discussions #sschat
 Tweet 5: A5: The key to keeping emotion to a minimum is building up 2 the more emotional issues. Lay the ground rules & Ss [students] will monitor. #sschat
 Tweet 6: @BushbinsClassAHS @ron_peck At same time allowing students to organize around issues important to them puts the learner in center #sschat
 Tweet 7: A5: Create a classroom culture that allows Ss [students] to feel free to disagree honestly but respectfully. #sschat
 Tweet 8: A5. It's all about listening! Understanding what is being said, then bringing discussions back to the text #sschat
 Tweet 9: A5: giving Ss [students] 5 mins to gather thoughts and write their argument doesn't stifle passion but gives them pause and helps [helps] order thoughts #sschat
 Tweet 10: A5: Start with primary sources and then eventually focus on more relevant controversial topics
The responses ranged in terms of how to create classroom a culture conducive to this type of learning (e.g., “safe environment”), specific writing strategies that might be helpful (e.g., “sentence frames to help Ss respond/disagree in a respectful manner”), the role the teacher should play (e.g., “It's all about listening!”), resources (e.g., “using tools like @hypothes_is”) along with how to implement activities (e.g., “have Ss [students] work 1st briefly with their own thoughts, then in small groups, then as a class) and the importance of building relationships with students (e.g., “Its all about creating relationships with students that fosters a positive discussion environment supported by evidence”). These responses suggest there are many facets for educators to pay attention
to when designing learning experiences that favor reasoned argument over emotion.

Adding to this complex process is the need to take into consideration the diverse needs of students based on the prior knowledge they bring to the experience and their unique skills and abilities. These #chat discussions, I argue, allowed participants to benefit from the many years of experiences that the participants have in a wide range of settings.

Kennedy (2016) posits that most professional development is created to address “teaching problems” in order to “improve” teachers. However, this approach typically is not effective because professional development experiences tend to isolate specific issues and then addresses them in isolation (e.g., questioning strategies). Her research, and what my study reveals, is that teachers need to think about a variety of components (e.g., classroom culture, teacher’s role, activities, resources, relationships) when designing learning experiences for students; and, professional learning experiences should reflect the interplay of the components rather than conceptualizing them as isolated factors which do not influence one another. This notion appeared to be particularly useful for pre-service and novice teachers participating in #sschat. In many teacher education programs in the U.S., the majority of time is spent learning about teaching outside of schools and a lesser amount of time is spent in schools analyzing the complex nature of teaching first-hand.

The #chat sessions were different from professional development experiences where the goal is to reach consensus about how a particular lesson or instructional strategy might be implemented to address a particular issue such as in Japanese lesson study or school-based professional learning communities (Avalos, 2011). The design of
the #chat questions was to elicit as many responses as participants wanted to share about their experiences as practitioners. This approach was also different from brainstorming, where the goal is to generate a list of ideas—including those that may seem crazy or impractical—for the purpose of solving a problem. The majority of ideas shared during the synchronous #chats were based on participants’ actual experiences as practitioners and, as such, were not hypothetical examples that had never been used in schools.

Given the ubiquitous nature of the internet and social media, crowdsourcing has become a popular technique used by various businesses and organizations to gather an abundance of possibilities—including innovative proposals—to address a particular issue (cf. Amazon’s Mechanical Turk program, or the crowd-enhanced Waze GPS app, for instance). As described above, my analysis of the data suggests that using a crowdsourcing approach within #chat sessions (rather, than say, a weekly “guest expert” to talk at people) was useful because it resulted in a wide range of practical and informed ideas being shared based on the authentic experiences of the participants. In many face-to-face professional development experiences participants have little time to interact with others. When teachers have a chance to discuss their ideas in these settings—to save time and for convenience sake—it is usually with another nearby person or in small groups. While there may be opportunities to “share out” ideas discussed in the groups, only those “chosen” are heard by entire group. The affordances provided by Twitter allow every participant to provide responses as often as he/she desired and for every participant to consider all responses posted (see Chapter 5). In my data, there was no evidence of limits as to the number of ideas that could be shared or time constraints that prevented
participants from sharing their experiences (participants were able to post ideas even after the next question was asked without causing any disruption). Of course, it must be noted that it can sometimes become difficult to follow all the ideas contributed in synchronous #chats sessions when the pace of the postings is too fast to keep up with or when participants post tweets that do not relate to the question or forget to use the appropriate abbreviations (e.g., “A1” to signal a response to the first question for the chat session).

In the case of #sschat, this crowdsourcing approach provided a window into the classrooms of the #sschat participants. Much in the same way as walking down the hallway and looking into each teacher’s room to see what was happening, the participants’ responses provided a brief narrative of what might be seen as the lesson was being enacted. The affordances provided by digital technologies, in combination with the design of the #chat questions, allowed participants to cross time and space boundaries and take a “virtual” look into the classrooms of teachers around the world, in different types of educational institutions, and at various grade levels. As a result, everyone in “attendance” of the #chat session was able to benefit from the collective experiences of the participants and not just from educators that are in close proximity in their schools or nearby (in groups) during face-to-face professional development experiences. This type of access to practitioners’ experiences is important because some schools/districts “are handicapped in their knowledge resources” (Talbert, 2010, p. 559) due to of a large number of novice teachers and would benefit from having access to the knowhow and experiences of veteran teachers. Further, unlike professional development experiences designed to “improve” teachers where the intention is for the practitioners to abandon
what they are currently doing in favor of some new approach (Kennedy, 2016), #sschat participants—who voluntarily participated in this space—had autonomy to “take up” any new ideas, modify their existing practices or ignore the ideas shared by other participants.

**Building on Each Other’s Ideas**

In the previous section, I argued that the structure of synchronous #chat questions resulted in a type of crowdsourcing approach that provided a wide array of ideas related to classroom instruction as a result of practitioners sharing their authentic experiences. In this section, I consider the degree to which the synchronous #chats appeared to support the #sschat mission to “reflect on the teaching of the discipline” and “help social studies teachers by providing ongoing democratic collaboration that works to challenge & support others.” Specifically, I explore what happened when participants responded to tweets posted by other participants.

An examination of all the synchronous #chat sessions that occurred during my 30 day study indicates that #sschat participants regularly responded to the tweets (ideas) that were posted in response to the #chat questions. As a point of illustration, in Figure 6.6 (crowdsourcing of ideas in which participants shared ideas regarding how they taught geographic vocabulary), all but one participant added additional information that was likely to be useful in terms of providing clarity or offering alternate but related approaches to the original post. It is possible that when participants were considering how other participants' responses to the #chat question were similar or different from their own, they were engaging in a type of reflective thinking that aided in the meaning-making process. Claiming this with any certainty of course lies outside the boundaries of
my study—nonetheless, the absence of repetition gives one pause. The comment (feedback) that was provided about using “an interactive whiteboard” as a way to “motivate students to ‘want to learn’ geographic vocabulary” is a good illustration of this point (see Figure 6.6, Tweet #2, 2a). One participant shifted the focus slightly from the activity mentioned in the original response (e.g., “we use to play games that reinforce vocab skills”) to identifying how the digital tool was beneficial for her students (e.g., “manipulating vocab really helps my Ss [students]”). This additional information was helpful because it made it clear that the participant believed the students were impacted when they were the “operators” of the interactive whiteboard. In the original response, it was not clear what role the teacher and the students had in “playing games.”

In the case of the “word wall & anchor charts” response (see Figure 6.6, Tweet #12), one participant added that his “high schoolers…make them [anchor charts] for test reviews.” This brief comment about who was responsible for creating the anchor charts in the participants’ class represented a, potentially, major pedagogical shift. And, because these comments were posted on the internet for the world to see, anyone who attended the #chat (or viewed the archived #chat) was able to benefit from the discussion. The design of the #chat sessions—along with the affordances provided by Twitter—made it possible for participants to see what other practitioners were doing in their classrooms and then provided an opportunity to think deeply about similarities and differences regarding their own practice. Researchers have found that teachers benefit from making their practices public and sharing them with others (Lieberman & Pointer-Mace, 2010). In this situation, it is possible that after reading the original post, another participant wanted to
make the students’ role in the activity explicit. It seems reasonable to assume that teachers who keep their doors closed and do not engage in discussions about classroom practice miss opportunities to learn from other practitioners who may have different ways of teaching similar topics.

It was during the interactions with other participants that it became evident that participants seemed interested in building upon each other’s ideas rather than claiming one idea was better than another. As described above, the “new” idea (high school students creating the anchor charts) was a minor shift in how an activity was implemented but could potentially have a large effect on student engagement and, possibly, student learning. These types of responses appeared to be useful to participants because they illustrated that learning experiences could be designed in many ways depending on their purpose and the students. In addition, they suggested that activities could be modified and adapted to suit a particular context which was helpful because teachers need a wide range of approaches to address the diverse learning needs and interests of their students (Darling-Hammond, 2015; Lambert, 2012; Kalman & Guerrero, 2016; Kennedy, 2016; Knobel & Kalman, 2016; Riordan & Klein, 2017; USED, 2010a, 2010b; USED, 2017). Further, participants come to the affinity space with different strengths and may find some ideas/approaches more suitable to their style or context than others; and, therefore, likely appreciate seeing how other participants have implemented similar instructional ideas in different ways.

My analysis of the data showed that participants also appeared to build on each other’s ideas as a way to address difficult questions about teaching posed by participants
that did not appear to have an obvious correct answer.

Tweet 1: how do I ensure that the process is meaningful for EACH and EVERY student

Tweet 2: @hohmsclass It might not be the most popular answer, but you might not! It's hard to measure passion, interest, & indivd meaning #engsschat

Tweet 3: @MrSchoenbart @hohmsclass thats what is the problem with education. #engsschat

Tweet 4: @callmemrmorris @MrSchoenbart @hohmsclass I like that GH helps school suck less - I don't measure it. I USE the time to get to know Ss.

Tweet 5: @JoyKirr @MrSchoenbart @hohmsclass and at the end of the day, that is what education is about - getting to know Ss better #engsschat

Tweet 6: @callmemrmorris @MrSchoenbart @hohmsclass I love that they know EACH OTHER better, too. Builds empathy & great classroom culture. #engsschat

Tweet 7: @JoyKirr @callmemrmorris @MrSchoenbart Ahh...its all about that classroom culture! #word #engsschat

Tweet 8: @JoyKirr @MrSchoenbart @hohmsclass building on work of each other - what better bottom line of education that this? #engsschat

Figure 6.8. In response to the question posed in Tweet 1, participants share their ideas and build on the ideas of others.

For example, in Figure 6.8, in response to a participant’s question about how to “ensure that the [genius hour] process is meaningful for EACH and EVERY student,” the answer shifts from it may not be possible to new responses that appear to re-conceptualize the first answer based subsequent comments. As a result, the conversation moved to a focus on the quality of interactions among the teacher and the students and resulted in the participant who posed the original question being led to discovering “it’s all about that classroom culture!.”

In what follows, I argue this side conversation (above) serves as a useful example

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43 Genius hour (also known as 20% time) refers to a class (or part of a class) which is structured such that students have the opportunity to explore their own passions and was the focus on this monthly #engsschat session.
of the process by which the participants seemed to work through their understandings of what they did in their classrooms as a way to respond to another participant’s question. This process demonstrated a collaborative effort that involved interactions with other participants as an important step in the meaning-making process. After considering the responses of others, participants appeared to reflect upon their ideas and posted new comments that seemed to demonstrate a shift in thinking or refinement of ideas. In the case of one participant (see Figure 6.8), his position changed from a critique of education (e.g., “We always trying to measure everything”) to acknowledging that what’s important about schooling are the interactions with the students (e.g., “that is what education is about - getting to know Ss [students] better”). Another participant’s responses showed a more nuanced shift from her relationships with students (e.g., “I USE the time to get to know Ss [students]”) to drawing attention to how implementing genius hour in her classroom has changed how students interact with one another (e.g., “I love that they know EACH OTHER better”). The participants’ chose to include each participant’s Twitter name (along with the #engsschat hashtag) at the end of each post to this conversation as a way to keep all the participants who contributed an answer apprised of the latest addition to the side conversation. This action suggests that participants appeared to be cognizant of the collaborative nature of this sidebar conversation; and, possibly, recognized that coming to a final answer was a result of each person sharing their own thoughts and building on the ideas of others. This example suggests that providing opportunities for educators to collaborate with other professionals is an important step in the reflection process and may contribute to deep conceptual
understandings. Other studies have reported that participants appreciate online spaces for educators because of the collaborative nature of the environment (e.g., Booth, 2012; Carpenter & Krutka, 2014; El-Hani & Greca, 2013; Forte et al., 2012; Holmes et al., 2013; Lieberman & Pointer-Mace, 2010; Rodesiler, 2014; Rodesiler et al., 2014; Visser et al., 2014; Wesely, 2013). My study adds to this literature by providing specific examples that suggest that the process of reflective thinking may be enhanced through interacting with others in an online collaborative environment.

Stepping In / Shifting Roles

A close analysis of the data revealed some unexpected findings regarding the roles and responsibilities of the co-leaders/moderators and the participants and how the interactions of each group contributed to #sschat’s mission of “providing ongoing democratic collaboration that works to challenge & support others in personal and professional growth” (retrieved from https://sschat.org/about-us). As a reminder, my research question asks what can be learned from online spaces such as #sschat that can help inform more formal professional development. Because #sschat was created by educators and eight years later continues on because of the efforts of participants who voluntarily participate, it seems particularly useful to consider how the roles and responsibilities of individuals in this space are similar to or different from those in more formal professional development models. To understand what is happening in this affinity space, I found it necessary to examine the co-leaders/moderators separately from the participants.

My study supports other research that found #sschat co-leaders/moderators were
responsible for maintaining organizational structures and routines (see Krutka, 2017). For example, the co-leaders/moderators were responsible for carrying out routines that contributed to attracting participants such as announcing upcoming topics, sending #chat invitations, welcoming new participants, and archiving chat sessions (see Chapter 5). They also maintained #chat structures associated with synchronous Twitter #chats (e.g., posting of synchronous #chat questions, Q1/A1 format) which I argued contributed to the collaborative nature of this affinity space. One interesting finding was that the co-leaders/moderators’ role was more managerial than the type of visionary role often associated with school leaders or expert role associated with professional development specialists.

An examination of the data collected during my one month study indicated that six of the ten synchronous #chat sessions were led by guest #chat facilitators. I use the term “guest facilitator” to describe the people who “stepped in” and led a #chat session because it reflects their role during the #chat session. Further, it distinguishes them from the co-leaders/moderators who, in addition to leading #chats, had other responsibilities as described above. Looking closely at what happened when there were guest #chat facilitators suggests there may be other ways to think about instructional leadership.

An unexpected finding of my study was that the participants appeared to determine the information and knowledge that was shared during the synchronous #chats rather than the co-leader/moderator or guest #chat facilitator who led the session. I offer three brief examples in support of this finding. First, one regular participant—turned #chat facilitator (for this session)—made it explicitly clear at the start of the
Differentiation in Geography Classroom #chat session that he was not an expert in this area (e.g., “Want to say up front I'm a neophyte when it comes to DI [differentiated instruction]”) and was “looking forward to learning how it looks in your classrooms.”

Second, when someone who might be viewed as an expert— the author of a New York Times best-seller history book series—led the Changing Attitudes about Heroes #chat, he spent the hour asking questions of the participants rather than telling them what he knew.

Third, during @YourWeekly Previews Upcoming Supreme Court Term #chat, it was the participants who asked questions of Stewart Harris (@YourWeekly) regarding what they wanted to learn about rather than the professor of Constitutional Law sharing his expertise about what he thought was important for them to know. Typically, professional development experiences are led by someone with assumed expertise and that person is responsible for designing an agenda and ensuring specific goals or objectives are met. In #sschat during the period of my study, the #chat facilitator was responsible for asking questions that would potentially inspire participants to share their relevant knowhow and experiences in a manner that would be beneficial to all the participants.

My analysis suggests that the establishment of strong organizational structures and routines made it possible for participants and outside experts to “step in” to the role of #chat facilitator and lead discussions about a range of topics while the co-leaders/moderators “stepped out” of being responsible for leading the #chat. This fluid approach to #chat facilitation made it possible for individuals to move in and out of the facilitator’s role preventing any single person from being viewed as “in charge” of the affinity space. It also enabled participants to “step in” to the facilitator’s role without
needing any special skills or expertise. Further, it provided the structural support for the type of participatory environment in which the value of the participatory space was the participants and their knowhow and experiences and gave voice to their interests by foregrounding their questions. This space was different from professional development experiences where the leaders of the experiences were expected to create learning experiences to “fix” teachers or transform teachers (Kennedy, 2016). Participants did indicate that they thought differently as a result of #chat sessions (e.g., “I’ve learned a lot and grown as a preservice teacher”); however, the intent of the #chat sessions was to share experiences rather than tell participants how they should act in their classrooms. Participants had autonomy to make changes to their instructional practices as they saw fit.

Had the idea of shifting roles been limited to the co-leaders/moderators and guest #chat facilitators during the synchronous #chat sessions then I would have likely considered the occurrence to be an example of collaborative leadership. Two closely connected features of affinity spaces relate to the porous/fluid roles involving leadership and participants. Gee & Hayes (2012) posit that the role of leadership is to provide resources, mentoring, and experiences that will facilitate the learning of the participants in the affinity space (see also Gee, 2005, 2007; Gee & Hayes, 2010; Lammers, 2010; King, 2010).

A close analysis of the data, however, also suggests that participants “stepped in” to a variety of roles (e.g., knower, expert, mentor) that likely contributed to participant’s individual growth and/or were likely viewed as an asset to the collective space. It is important to note that these data that I present below drew attention to how participants
were viewed by others in the affinity space, not necessarily how they viewed themselves (see Figure 6.9).

This exchange appears to illustrate how @JoyKirr was seen by others as knowledgeable and eventually shifted into being perceived as an expert on the subject of genius hour. In response to a question directed at her (see Figure 6.9 above), @JoyKirr signaled she was “stepping in” to the role of knower by responding with a question asking the participant if she was prepared to hear the answer that she was about to give (e.g., “Ready??”). She explained that she had a somewhat similar experience. As a result, she came up with “TONS of reasons” that illustrated the value of genius hour which she compiled in a Livebinder and shared the link for everyone in the #chat to access. In response, the participant showed her appreciation (e.g., “Thanks for sharing such great stuff with us”) and acknowledged her expertise (e.g., “you are clearly the go-to lady on this topic!!!”). The use of multiple explanation marks suggests the participant was
impressed by her knowledge on this subject.

This exchange was interesting for three reasons. First, while @JoyKirr was willing to “step in” to the role of “knower” and share her curated resources, she saw herself only as a passionate educator willing to help others interested in genius hour but not as an expert (e.g., “Just an “evangelist”). Second, according to the Twitter bio of the participant asking the question, she was a principal who had a “Master's Degree,” was an “Educational Leader,” and was “Driven to Succeed.” It was unexpected to see an administrator who wanted to be viewed as an “Educational Leader” publicly asking a teacher for advice regarding how to deal with other teachers who were reluctant to try new/different instructional approaches. This reminds us that educators at all stages of their career benefit from being able to shift into the role of a “learner” and engage with others who have experiences that will be useful in their learning. Gee and Hayes (2012) argue that in affinity spaces, “Everyone is always a potential “newbie,” continually learning and being mentored.” In the present study, having a structure that allowed participants to shift fluidly from knower to learner (and the reverse) likely contributed to a collaborative learning environment where everyone’s contributions were potentially viewed as valuable. In affinity spaces where the focus is on the passion (not a person’s years of experience or title) traditional hierarchies between knower and learner tend to be flattened. Finally, because this exchange was public for everyone to see, all of the #sschat participants were able to take advantage of the resource that was shared during the role shifting exchange.

Another example of a participant who appeared to “step in” to a new role
occurred when a regular participant posed a question to the guest #chat facilitator and all the participants in the weekly #sschat about *Controversial Issues* (e.g., “@Ron_Peck and other #sschatters, are there any taboo topics you keep away from?”). As a retired educator it was unlikely that he was in need of the answer. However, as a veteran educator it is conceivable that he posed this question because—from his experience—he thought it was important for #sschat participants to consider; and, it might not be addressed because it was not one of the “official” #chat questions to be asked during the session. Rather than assume the role of a “knower” and just tweet his perspective, it appeared that he chose to ask a question that provided an opportunity for practitioners to share their knowhow based on their diverse experiences in a range of educational institutions (e.g., grade levels, geographic locations). This approach resulted in multiple side conversations in which five participants provided different scenarios. One pre-service teacher asked multiple questions in an effort to learn from the experiences of veteran teachers. These questions seemed to reflect the type a novice teacher might ask his/her mentor (e.g., “@flipping_A_tchr - I understand why you wouldn't but when would you?#sschat #ted554”). But instead of getting a response based on one teacher’s experience (his/her mentor), the design of the #chat environment made it possible for anyone to “step in” to a mentoring role and share advice based on his/her experiences. Unlike schools where pre-service and novice teachers are partnered with a mentor to guide them and answer their questions through the first few years of teaching, it can be argued that the synchronous #chat sessions served as a form of collaborative mentorship experience for those who viewed themselves as learners. It was the collection of ideas—
particularly where participants interacted with one another, built on each other’s ideas, and scaffolded their thinking—in which the value of a collaborative approach to mentorship was realized. Teacher education programs that seek to prepare pre-service teachers—a form of early professional development in so many ways—to work in a range of diverse educational settings might find the idea of a collaborative approach to mentoring useful because it would likely expose their students to multiple perspectives for designing learning experiences and crafting solutions to challenges they are bound to face. The literature is filled with examples of teacher education programs that attempt to link theory and practice as a way to prepare teachers to teach in a wide range of educational settings (Avalos, 2011; Darling-Hammond, 2006; Cochran-Smith et al., 2015; Kennedy, 2014; Kennedy, 2016). My study adds to the emerging literature that suggests having access to a community of online educators who can act as mentors may be particularly beneficial to pre-service and novice teachers who are in the early stages of their careers in education (Carpenter, 2015).

Thus far the examples of role shifting I have discussed have highlighted how a fluid approach to participation has been useful to #sschat participants who had specific questions while also contributing to the collective knowledge of the affinity space. The next two sets of data illuminate how #sschat participants were impacted as they shifted in their roles from participants to learners, knowers, and mentors within the #sschat affinity space.

In Figure 6.10 (below), @JoyKirr provided a response to a question posed to #sschat participants based on her own experiences and not necessarily on any research
(e.g., “My 2 cents”). The inclusion of a winking smiley face emoticon (i.e., “;”) suggested that she wanted her response to be viewed as a friendly recommendation coming from a colleague and not from a position of authority.

Tweet 1: Should I use a rubric for Ss [students] passion project blogs? More guidance but less freedom. Easier to justify to admin. [administration] #engsschat

Tweet 2: @mrchokshi If you use a rubric, have students self-assess, & give peer feedback, & don't put it in the grade book. #engsschat My 2 cents ;)

Tweet 3: Suggestion for #engsschat Ts [teachers] - if you grade Ss [students] on any part of #geniushour projects, PLEASE do a project yourself & grade it, as well.

Tweet 4: @JoyKirr Such a great idea. I have my own 20%. But I should have my students grade me!

Tweet 5: @BioBenasconi I tried to grade myself one summer using my own rubric... couldn't get the A. Threw away the rubrics. ;)

Tweet 6: @JoyKirr Did you make your own rubrics? I have my students make their own, gives them guidelines as to how to develop their project

Figure 6.10. Participants appear to move fluidly from knowers to learners (and the reverse) as they interact with others in this space.

After posting her response to the question, her next tweet (Tweet 3) suggests that she likely reflected upon her response and decided there was a need to further clarify her thinking (e.g., “if you grade Ss on any part of #geniushour projects, PLEASE do a project yourself & grade it, as well”). After reading Tweet 1 (see Figure 6.11 below), two things appeared to happen. First, @BioBenasconi seemed to show her approval by “liking” the tweet and responding “such a great idea.” Second, she gave the impression her thinking shifted from someone who had authentic experiences with genius hour (e.g., “I have my
own 20%”) to potentially taking steps to make it more authentic based on @JoyKirr’s advice (e.g., “But I should have my students grade me!”). In response, @JoyKirr indicated that by putting herself in the position of a student (e.g., “I tried to grade myself one summer using my own rubric... couldn't get the A. Threw away the rubrics”) her thinking about grading shifted (e.g., “Threw away the rubrics”). These data suggest that @JoyKirr and @BioBernasconi appeared to move fluidly from knowers to learners (and the reverse) as they interacted with others in this space; and, as they did this, likely refined their thinking.

Further, the affinity space seemed to benefit from the symbiotic relationship that existed between the “learner” who asked authentic questions based on their needs and the “knowers” who were willing to share their knowhow and experiences. It appeared that through social interactions, both groups of participants were able to actively engage in a meaning-making process. It is this type of collaborative approach to understanding that sets #sschat apart from more traditional forms of professional development where
educators are put in the role of “learner” with little or no opportunity to contribute as a “knower.” The combination of the #chat session design, the participants’ responses, the ability to engage in “role-shifting,” along with social media and their affordances contributed to a collaborative approach to mean-making. The very fact that participants voluntarily participate in #sschat suggests that they place a high value of opportunities to engage in this type of collaborative mean-making processes.

Research has shown that “role-taking” that involves taking the position of others can be a productive step in the reflective process (Brookfield; 2017; Kennedy, 2014; Lieberman & Pointer-Mace, 2010; Schön, 1987). Data from my study support this claim. However, my data also suggest that there may be more than this happening in the #sschat affinity space. For instance, the term, “role-taking” does not seem to capture the dynamic nature of role-shifting that occurred in the synchronous #chat sessions. Within a single #chat session, participants shifted multiple times from peripheral participant (Lave & Wenger, 1991) to knower/mentor to learner. Knobel and Kalman (2016) found their study participants shifted continuously from teacher to learner as they—along with their students—interacted in new ways with digital tools in support of learning. Moreover, while “role-taking” may explain how enacting in new roles provided opportunities for personal growth; it does not address how these actions—which are public for #sschat participants to observe—affect the affinity space at large. The role-shifting process described above benefitted the individuals who engaged in this process along with the #sschat participants since the tweets related to the experience were public for anyone in the world to see.
In #sschat, the participants had autonomy to shift from one role to another based on the interaction and the participants with whom they engaged. Gee and Hayes (2012) argue this is different from schools where administrators, teachers, and students tend to have set roles which define how each group interacts with one another based on a hierarchal structure (see also Gee, 2005, 2007; Gee & Hayes, 2010). Having the flexibility to step in to roles as knowers and mentors helps to ensure that the information shared maintains a standard that continues to attract participants to the affinity space. The synchronous #chat sessions gave participants a “voice” to share their knowhow based on their experiences as practitioners and a “choice” about how they wanted to engage in the sessions and be perceived by others. Previous research has shown that educators have little influence with regard to the type of professional development that they must attend during the school day (Darling-Hammond, 2015; Gulamhussein, 2013; Grossman & Hirsh, 2009; Hill, 2009; OCED, 2014; Rodesiler et al., 2014; Tucker, 2011). My study contributes to the literature by providing data that indicate it is beneficial for educators to have a space which allows them autonomy in how they interact with colleagues and provides opportunities for role shifting (see also Knobel & Kalman, 2016; Riordan & Klein, 2017). What is not known is how others in the affinity space were affected by the public display of the participants’ shifts in thinking as engaged in role-shifting behaviors. As such, this suggests a potentially fruitful avenue for further research.

**Discussion and Conclusion**

I began this chapter by examining the interactions during the synchronous #chat
sessions as a way to answer my research question which asks: what can be learned from online spaces for educators, such as #sschat, that can help shape and inform more formal professional development. In keeping with the title of this chapter, Social Interactions: Personal and Professional, I considered how participants voluntarily participated in the #sschat affinity space and the opportunities they had to make choices about how and when they engaged in activities and interacted with other participants. I contemplated about what was happening in my study in broad terms beginning with what factors contributed to a sense of belonging that was apparent among the participants. I considered the various features that made #sschat a nurturing affinity space. Each of the synchronous #chats had its own characteristics. However, looking across the #chats made it apparent that the participants placed a high value on supporting one another through friendly interactions and making interactions within #sschat affinity enjoyable. I examined the types of topics and questions that were the focus of the synchronous discussions and argued that these sessions were designed to support participants in their endeavors to prepare students to address social issues that are prevalent in our global society. Finally, I analyzed how a collaborative approach contributed to participants sharing a plethora of ideas and experiences, reflective thinking, and role shifting.

My study contributes to the literature by recognizing that some educators want to engage collaboratively with others who share similar beliefs/ideas about professional practice and professional learning in an effort to become better in their role as an educator. There will always be new research about how to teach and new students—with unique interests and experiences—for teachers to consider when designing learning
experiences. Consequently, becoming a “better” educator is a never-ending journey (Feiman-Nemser, 2001; Knobel & Kalman, 2016; Riordan & Klein, 2017; Taylor et al., 2014). The idea of teachers needing to continue to learn how to teach is not a new concept. Two such examples follow. Feiman-Nemser (2001) created a teaching continuum to describe how teachers passed through various stages based on specific areas of concerns that teachers had related to their years of experience. Taylor and colleagues (2014) conceptualized teacher development as “a lifelong process” and “no matter the stage, need[ed] opportunities to reflect, learn from, and teach one another” (p. 17). The very notion of teacher training and professional development is based on teachers learning new ideas about topics such as differentiated instruction, assessment design, and classroom management to name a few. In U.S. schools, teachers have little input into the type of professional development experiences they must participate in during in-service days (Grossman & Hirsh, 2009; OCED, 2014; Tucker, 2011). In contrast, my study sheds light on what happens when educators engage in experiences that are aligned to their passions.

Previous studies have found that participants in online spaces for educators appreciate the opportunity to interact with like-minded people (Booth, 2012; Duncan-Howell, 2010; Carpenter & Krutka, 2014; Wesely, 2013). I find the term like-minded problematic, however, because it is not clear in what ways the participants in these studies were alike. It could be construed that participants appreciate the opportunity to interact with others who teach the same content area or grade level. My data suggests that what the participants shared was a common idea about how they viewed their role as
a professional and educator, their actions in these roles, and how they interacted with others in activities related to these roles. To be clear, participants were not always in agreement regarding how to teach about a particular issue; and, consequently, the sharing of diverse ideas, in fact, enriched the discussions (see also Surowiecki, 2005 for the value of leveraging the “wisdom of crowds”). In the present study, common understandings were apparent in participants’ actions as self-directed learners, the manner in which they supported other participants in their learning, and how they prepared their students to be enactors of social change. The names they created for describing members of the group (e.g., “my #sschat peeps”) suggests that they viewed themselves as “insiders” in a group of educators who shared a similar set of “practices” (social ways of being). Gee & Hayes (2012) argue that while participants may engage in ways that show they enjoy interacting with other participants, the primary focus of the space is the shared passion. Despite the names of the hashtags (associated with the #sschat affinity space), my analysis showed this affinity space was less about teaching social studies and more about engaging with others who shared a similar passion about preparing students to take active roles in an ever-changing world. Distinguishing what educators teach (e.g., content area, grade level) from how they teach (e.g., student-centered) suggests a reason to consider different conceptualizations of professional learning.

While I make no claims about #sschat being a place where learning occurs, the data showed that participants engaged in a range of interactions in which they examined instructional practices and reflected upon their experiences as practitioners. These are some of the same type of actions that have been associated with teacher learning.
(Desimone, 2009; 2011a; Desimone & Garet, 2015; Guskey & Yoon, 2009; Lieberman & Pointer-Mace, 2010; Opfer & Pedder, 2011; Putnam & Borko, 2002). Over the past decade, researchers interested in determining what makes professional development effective, have come to agreement on a common set of features that contribute to this purpose. Other researchers who have studied online spaces for educators using social media have posited that it is not known the degree to which the design of these spaces reflects what is known about designing effective professional development (Moon et al., 2014). Because the methodology for my study involved my active participation in the synchronous #chats, I was able to shed light on what was happening during the interactions that occurred in the synchronous sessions in ways that were not possible by examining survey data. In addition, actively engaging in the #sschat affinity space resulted in identifying nuanced understandings of what was happening along with why it was happening from an “insider’s” perspective that is characteristic of what anthropologists learn when they live among the group of people that are the focus of their study (Boellstorff et al., 2012; Merriam 2009; Merriam & Tisdell, 2015; Stake, 2009). Moreover, researchers who study transcripts from the online space—without actively engaging in the experience—are likely to miss important factors that affect the participants’ motivation to participate. As illustrated in Table 6.1 below, there are many commonalities between the five features that have been identified as contributing to professional development and what happens in the #sschat affinity space. I provide a more thorough discussion of these comparisons below.
Desimone and Garet (2015) found that a critical feature of professional development was that the experience “focused on subject matter content and how students learn that content” (p. 253). In a similar way, looking broadly across the synchronous #chats, the sessions were designed for participants to share the “big ideas” prompted by a topic along with matters that affected student learning such as pedagogy, classroom climate, and assessment design. For example, there were some #chat

Table 6.1

Comparison of Effective Features of Professional Development (Desimone & Garet, 2015) to #sschat Experiences

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
<th>#sschat Experiences</th>
</tr>
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<tbody>
<tr>
<td>Content focus</td>
<td>activities that are focused on subject matter content and how students learn that content</td>
<td>purpose was “to discuss and reflect on the teaching of the discipline [social studies]...in order to improve delivery of instruction to our students”</td>
</tr>
<tr>
<td>Active learning</td>
<td>opportunities for teachers to observe, receive feedback, analyze student work, or make presentations, as opposed to passively listening to lectures</td>
<td>participants interact with one another by sharing knowhow, providing feedback and asking questions in asynchronous and synchronous environments</td>
</tr>
<tr>
<td>Coherence</td>
<td>content, goals, and activities that are consistent with the school curriculum and goals, teacher knowledge and beliefs, the needs of students, and school, district, and state reforms and policies</td>
<td>#chat sessions focused on preparing students to be critical thinkers, confront social injustices, and for civic engagement</td>
</tr>
<tr>
<td>Sustained duration</td>
<td>PD activities that are ongoing throughout the school year and include 20 hours or more of contact time</td>
<td>#chat sessions occur synchronously for one hour with access to previous years’ archived #chats available</td>
</tr>
<tr>
<td>Collective participation</td>
<td>groups of teachers from the same grade, subject, or school participate in PD activities together to build an interactive learning community (see Desimone, 2009)</td>
<td>structures of the affinity spaces foster a highly interactive environment where participants share their knowhow and experiences</td>
</tr>
</tbody>
</table>
questions that focused on specific subject matter and how to support students in the learning process (e.g., *Teaching the Primaries*) (see Appendix B for #chat questions). However, there were #chat topics that were more conceptual in nature (e.g., *Controversial Issues*). In addition, there were #chat topics that did not focus on content at all. For example, the *Genius Hour* chat was designed to discuss how to create an environment based on student-inquiry without any specific focus on content. It is worth noting that genius hour was the focus of the synchronous #engsschat which targeted participants of #engchat and #sschat. Further, the data revealed that all the synchronous #chat sessions within the #sschat affinity space included participants from multiple content areas with job responsibilities outside of teaching social studies. This suggests that some educators want to engage in discussions about interdisciplinary topics as a way to help their students develop important skills (e.g., critical thinking) and prepare them to address real-world challenges (e.g., social inequities).

Active learning was another feature that researchers have agreed is essential to effective professional development. Experiences where teachers are told what to do or say (lectures) do not appear to be as effective as activities designed in which educators are involved in the sense-making process (e.g., observing, providing/receiving feedback). In #sschat, participants willingly opened the “virtual door” into their classroom enabling others to observe how they interacted with their students. Data from my study was filled with examples of participants sharing specific examples of what they or their students did as part of the learning process. Participants shared digital resources that they created or used from the internet as a way to further clarify what was happening in their classrooms.
in support of student learning. Given that this was a virtual space without any video capabilities, it not possible to say with certainty what participants were doing when they were participating peripherally or lurking. My own experiences as a participant during the synchronous #chats suggests that they may have been involved in a host of activities that may have contributed to learning (e.g., reflecting upon what was being said, taking notes, sharing information via their networks) or involved in some other activity preventing them from giving their full attention to the #chat session. Further research that examines what changes participants make in their practice as a result of participating in online spaces for educators is needed.

In regard to the third feature, coherence, it is difficult to make any claims about the degree to which the topics for the synchronous #chat sessions were aligned to “school curriculum and goals” (Desimone & Garet, 2015, p. 253). Other researchers have noted that online spaces comprised of a global group of educators from a variety of educational institutions is not consistent with the research that suggests that professional development must be aligned to school/district initiatives (Carpenter & Krutka, 2014). What can be said is that participants voluntarily chose to participate in the sessions suggesting that there was likely to be some relevance to their roles as educators. For example, regardless of the topic, a common theme of the synchronous #chat sessions related in some way to preparing students to be critical thinkers. This view of social studies education is different from educators who focus on teaching about the past as a series of names of historical figures and dates of important events to be memorized without making relevant connections to today’s world. Kennedy (2014) cautions that some professional
development experiences can have intended/unintended outcomes that “encourage conformity to the status quo” (p. 692). This suggests that some programs may be aligned to school/district goals (e.g., prescriptive curriculum) but may not result in increased student achievement.

My study suggests that limiting educators’ opportunities to professional development to only those experiences that are aligned with school/district goals prevents the cross-pollination of new ideas and new ways of thinking. It is widely accepted that one of the most salient benefits of online spaces is the diverse experiences that are shared as a result of the vast array of schools represented in the space. Other studies have found that participants who act as boundary crossers can be beneficial to schools when they bring new ideas back and share with their colleagues (Forte et al., 2012; Knobel & Kalman, 2016; Schlager et al., 2009). In response to a survey which asked about how #sschat was professionally beneficial, one participant acknowledged she was exposed to “innovative practices that ppl [people] in my school might not be using” (survey respondent10, 10/12/2015). In Chapter 5, I discussed that a key finding from my study related to the ways in which a participatory environment appeared to contribute to participants’ “bringing in” and “sharing out” ideas—which may have resulted in the formation of new ideas and innovative thinking. In a related way, participants seemed to feel a sense of support when they engaged in discussions about classroom instruction with participants who were more aligned to their approach to teaching (e.g., student inquiry). Studies have found that teachers—who act as change agents—often have to act in subversive ways (Cochran-Smith, 1991; Taylor et al., 2014). Having access to
educators who shared similar beliefs about the teacher’s role in student learning can be important when teachers are implementing instructional approaches that are different from their school/district colleagues. Aligning school-based professional development experiences to district goals can promote a sense of coherence between what educators know and are expected to do. However, my study supports the literature that indicates that experiences, such as online affinity spaces, that promote the cross-pollination of ideas can be beneficial, as well.

The notion of sustained duration of time is an interesting feature because there is not complete agreement on the amount of hours that are sufficient to result in lasting changes to instructional practice. Some research identifies a range of hours in terms of the length of semester (e.g., Desimone, 2011a recommends at least 20 hours) and other research describes the optimal duration in terms of being “intensive, ongoing, and connected to practice” (Darling-Hammond, 2009, p. 6). There does seem to be consensus that one-time workshops are not effective. The data from my study suggests that there may be other ways to conceptualize the notion of duration. Although the #chat discussions regarding a single topic were designed to last for one hour, participants were able to regularly interact with others in synchronous experiences designed to promote reflection on a regular basis (e.g., weekly/monthly). It is difficult for teachers to engage in this type of thinking during the school day on a regular basis with colleagues. However, digital technologies make it possible for participants to routinely examine their own practices as part of a socially constructed process. My study suggests that it may be more about the importance of making reflection a regular part of a teacher’s practice then
the length of a professional development experience.

A key element of affinity spaces and a feature that is found in effective professional development is collective participation (see Table 6.1 above). As described earlier in Chapter 5, the design of the synchronous #chat sessions was to promote a highly interactive environment. Findings from my study are in accord with recent studies that indicate participants in online spaces for educators appeared to appreciate the opportunity to hear multiple perspectives regarding a particular topic (Biddolph & Curwood, 2016; Booth, 2012; Carpenter & Krutka, 2014; Duncan-Howell, 2010; El-Hani & Greca, 2013; Forte et al., 2012; Gao, et al., 2012; Hur & Brush, 2009; Rodesiler, 2014; Rodesiler, 2014). #sschat had participants from a range of educational institutions across the United States and some participants from other nations; arguably more diversity than educators find in their school/district professional development experiences. Although ubiquitous access to digital technologies is becoming more prevalent, there are still individuals and places in the world where such access does not exist.

In more recent years, Desimone and Garet (2015) have identified “further insights” refining the features of effective professional development based on their research. I provide a brief comparison of these insights to what was happening in the #sschat affinity space I studied (see Table 6.2 below) along with a more thorough discussion of these comparisons below.
Table 6.2

Comparison of Insights Regarding Effective Professional Development and #sschat Experiences

<table>
<thead>
<tr>
<th>Insights (Desimone &amp; Garet, 2015)</th>
<th>#sschat Experiences</th>
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<tbody>
<tr>
<td>Changing procedural classroom behavior is easier than improving content knowledge or inquiry-oriented instruction techniques.</td>
<td>#chat questions were designed for participants to share their ideas and experiences. Recognizing how challenging it can be to try new instructional approaches, #chat questions were designed to enable participants to focus on one aspect at a time, such as “Q? what is a simple thing someone could do tomorrow to differentiate?.”</td>
</tr>
<tr>
<td>Teachers vary in response to the same professional development.</td>
<td>Participants came to the affinity space with different levels of experience and had opportunities to examine their own practices and engage in reflective discussions from the perspective of learner or knower. Further, because they voluntarily participated in this space, they had autonomy to decide what shifts, if any, they would make to their instructional practices.</td>
</tr>
<tr>
<td>Professional development is more successful when it is explicitly linked to classroom lessons.</td>
<td>#chat questions were designed for practitioners to share their knowhow based on their experiences in classrooms and schools. Responses provided a “virtual” look into the participants’ classrooms.</td>
</tr>
<tr>
<td>Professional development research and implementation must allow for urban contexts (e.g., student and teacher mobility).</td>
<td>Participants had autonomy to “take up” and adapt ideas to meet their situations. Data indicated context plays a significant role in why teaching is complex; rural contexts had their own challenges.</td>
</tr>
<tr>
<td>Leadership plays a key role in supporting and encouraging teachers to implement in the classroom the ideas and strategies they learned in the PD.</td>
<td>A range of voices with experiences in different educational settings (e.g., K-12 schools, teacher ed programs, government agencies, non-profit organizations and content providers) who play key roles (formal/informal) in supporting and encouraging teachers in the implementation of new ideas and strategies participated in the #sschat sessions.</td>
</tr>
</tbody>
</table>

As with the previous comparison, many of the insights that were considered to be important components of effective professional development existed in some manner in the #sschat affinity space. For example, with regard to the importance of focus on classroom instruction (lessons and student learning), the #chat sessions were designed...
such that practitioners—with actual experience in classrooms—were best positioned to answer the questions. As discussed previously, the collection of responses provided a “soup to nuts” approach of what a teacher new to teaching the topic would need to know based on the many years of experiences that the practitioners had in teaching the topic. As a result, participants were well-armed with ideas that they could implement in their own classrooms the next day. This approach is different from professional development experiences that are led by outside experts that promote ideas about how to teach something without any real experience with regard to implementation (Lampert, 2010).

One obvious difference between #sschat and the studies that Desimone and Garet did that informed the list of effective features and insights of professional development is how the goals of the experiences were determined (Desimone, 2011a; Desimone & Garet, 2015; Desimone, Smith, & Phillips, 2013; Desimone & Garet, 2015). As mentioned previously, the mission of #sschat was to support social studies teachers in their personal and professional growth. Desimone and Garet’s research is rooted in the idea that outside tools (e.g., evaluations, student test scores) can be used to identify teachers’ shortcomings and areas in need of improvement. Like the transmission model of professional development which emphasizes a “right” way to teach (Kennedy, 2014), thinking about professional development only in terms of it characteristics does not acknowledge the unique skill sets that individual teachers bring to teaching or the interests or passions that students’ bring which can be leveraged in the learning process.

Researchers have called for a better understanding of how to prepare teachers for more diverse schools and students in relation to important skills such as critical thinking.
(Cochran-Smith, Villegas, Abrams, Chavez-Moreno, Mills & Sterns, 2015; Darling-Hammond, 2015). Desimone and Garet (2015) have made known the need for further research into what they see as the five features of effective professional development within different contexts in order to “better understand why some PD works and some doesn’t” (p. 260). In Kennedy’s (2016) review of 28 studies in which she examined the theory of action framing each, she posits there is no agreement on how professional development “fosters teacher learning and how it is expected to alter teaching practice” (p. 945). Therefore, Kennedy (2016) concluded that rather than focusing on design features of professional development, there needs to be a better understanding of the role teacher motivation plays in teacher learning. Meanwhile, Moon and colleagues (2014) have called for research to examine learning environments reflective of the features for effective professional development that appear to support teacher learning. I now turn to discuss how my study addresses in some way many of these research agendas as well as has generated other important findings and insights.

As demonstrated in Tables 6.1 and 6.2 (above), my study adds to the literature by providing evidence of how the research-identified features of and insights into effective professional development are enacted in a new and different context (i.e., within an online affinity space). Gee and Hayes (2012) claim that “affinity spaces have much to teach us about fostering people’s passion and commitment to learning” (p. 34) (see also Black, 2008; Curwood, 2013; Curwood et al., 2013; DeVane, 2012; Duncan, 2012; Durga, 2012; Gee, 2005, 2007; Gee & Hayes, 2010, 2012; Hayes & Lee, 2012; Lammers, 2012; Lammers et al., 2012; Lewis, 2014; Magnifo, 2012). Thus, findings from my
study—where participants voluntarily chose to participate—can provide some notions of the types of experiences educators want to engage in to discuss topics related to classroom instruction and how to prepare students with important skills such as critical thinking.

Perhaps the most important contribution that my study makes to the literature is by identifying design components that foster the type of social interactions that are conducive to teacher learning from a practitioner’s perspective. Findings from my study suggest that educators want to be able to partake in discussions with other educators who shared similar ideas about the type of professional learning experiences that they want to engage in. In a similar way, a relatively recent edited collection of 11 studies about teacher learning, digital technologies, and new literacies (Knobel & Kalman, 2016), showed how teachers from a range of countries wanted to collaborate with others who shared a similar view of how technology can be used to support learning in new ways that were not previously possible. Likewise, in a case study of one history teacher’s journey, Kalman and Guerrero (2013) found that collaborating with other practitioners who shared similar interests was helpful to this teacher as he re-imagined his teaching practices to make room for students to use digital technologies in meaningful ways. What these studies all have in common is the emphasis on a collaborative experience in a non-hierarchal setting with colleagues who share similar beliefs about how they view themselves as teachers and learners. Unlike professional development models that are designed to address “deficiencies” in teachers, these examples reflect transformative models of professional learning which incorporate collaborative experiences as a way to
support professional inquiry (Kennedy, 2014).

The idea of a democratic, non-hierarchal environment has been found to be important to practitioners in other Twitter #chat studies because it seems to provide an equal opportunity for participants to interact with everyone in the session (including the #chat facilitator) and there appears to be equal opportunity to share ideas and ask questions (Krutka & Carpenter, 2014; Wesely, 2013). This type of experience is different from school-based professional learning communities (Lave & Wenger, 1991, 1996) because the #chat sessions involve a large number of people who engage in a discussion about a specific topic but are not working towards the same implementation goals.

Moreover, the interaction among all levels of educators (e.g., pre-service, novice, in-service, teacher educators) in #sschat shows a promising approach for designing professional development in schools/districts where the goal is for all educators to “take up” a new instructional approach. There has been considerable critique with regard to how pre-service teachers are currently being prepared to teach. There is need to re-conceptualize how to prepare teachers to teach in schools with increasing number of students with diverse backgrounds who will need to think critically and utilize emerging technologies in effective ways. Likewise, it is necessary at the same time to consider how to support current teachers, mentors, school leaders, and teacher educators in their efforts to keep up with these same demands (Cochran-Smith et al., 2015; Darling-Hammond, 2006). Affinity spaces do not segregate people based on their age, years of experiences or other demographic features. People are drawn to the space and interact with others based on their shared passion (Biddolph & Curwood, 2016; Black, 2008;
Curwood, 2013; Curwood et al., 2013; DeVane, 2012; Duncan, 2012; Durga, 2012; Gee, 2005, 2007; Gee & Hayes, 2010, 2012; Hayes & Lee, 2012; Lammers, 2012; Lammers et al., 2012; Lewis, 2014; Magnifo, 2012). The participation model portrayed in the #sschat affinity space—which included educators at all different stages of the teaching profession—may provide a viable approach for those educators willing to try a more integrated system.

Other researchers have emphasized the importance of reciprocal relationships in online spaces (Matzat, 2010, 2012; Rheingold, 2014; Sari & Tedjasaputra, 2012). This is the idea that participants must post resources or offer feedback as a way to ensure receiving valuable items in return or to be viewed as a valuable contributor to the space. While this may be intuitive, there was no evidence that this type of expectation-based symbiotic relationship existed. For example, pre-service teachers and others who did not have actual experiences to share often asked questions. From the perspective of the participant responding to the question, the inquiry could be viewed as meaningful contribution to the affinity space. A response seemed to prompt participants’ examining their own practice before providing an answer. From the perspectives of the other participants, examining their practices in light of the response often highlighted critical nuances that came from their practical experiences and context. What sets affinity spaces apart from other professional development models is the emphasis on supporting the development of individual and collective knowledge (Biddolph & Curwood, 2016; Black, 2008; Curwood, 2013; Curwood et al., 2013; DeVane, 2012; Duncan, 2012; Durga, 2012; Gee, 2005, 2007; Gee & Hayes, 2010, 2012; Hayes & Lee, 2012; Lammers, 2012;
Lammers et al., 2012; Lewis, 2014; Magnifo, 2012). In the case of #sschat, the archives of the synchronous #chats provide a strong foundation for a knowledge base reflective of what is needed for social studies teachers to know and be able to do.

In keeping with concerns about participants’ contributions, other studies have found lurking\textsuperscript{44} behavior to be problematic (El-Hani & Greca, 2013; Matzat, 2010, 2012; Sari & Tedjasaputra, 2012; Sun et al., 2012). For example, Matzat (2010; 2012) argued that lurking was detrimental to forming a trust-based environment. As a result, some participants did not want to share resources if everyone was not going to be held to the same expectations. In the #sschat affinity space, it was common practice for participants to indicate when they would not be in attendance during a #chat session. As insiders, participants appeared to understand other personal and professional responsibilities may have prevented participants from attending #chat sessions. Missing a #chat session did not appear to diminish the #sschat participants’ commitment to the shared passion.

The commitment to the shared passion in affinity spaces is what sets these spaces apart from what happens in schools. By foregrounding the shared passion, participants in my study seemed to value sharing their knowhow and experiences during the synchronous #chat sessions. Insiders saw this action in terms of what it means to be a professional within this affinity space. Because the emphasis was on supporting each other and contributing to the collective, a sense of trust among the participants was established. Hagel and colleagues (2012) argue “trust also fosters the shared understanding that makes it easier to access tacit knowledge” (2012, p. 255). It is widely

\textsuperscript{44} A lurker in a Twitter #chat is someone who observes what is happening but does not post any comments.
accepted that good teachers are effective in meeting the needs of their students because of the tacit knowledge that they have gained from their experiences. However, one challenge is being able to share tacit knowledge with others. Hagel et al. (2012) have found that there are certain conditions that can be created that will help to make implicit or tacit knowledge more explicit. This involves creating environments similar to the #chat sessions where participants share ideas and experiences with others they trust in collaborative settings. For a long time, teaching has been understood to be a private endeavor with few opportunities for teachers to observe others in the profession. The design of the #chat sessions encouraged participants to examine their teaching practices and then share their practices publicly. This type of reflective experience encourages teachers to become students of their own practice (cf. Knobel & Kalman, 2016; Lieberman & Mace, 2010). Riordan & Klein (2017) conceptualized similar experiences that involved teachers sharing multiple perspectives on issues of equity and then making decisions about how they would “take up” ideas as teachers being “leaders in their own practice” (np). During these exchanges, participants engaged in collaborative practices through building on each other’s ideas. It was during this process that important nuances were brought to light and which emphasized the important role that context plays in teaching.

In this chapter, I considered the various factors that contributed to participants engaging in synchronous #chat sessions and the outcomes of those experiences. I found that educators want to engage in discussions about topics that are relevant to their needs and interests and where practitioner knowhow and experience was viewed as a valuable
commodity. Recognizing the importance of context and the complexity of teaching and learning, the discussions within the synchronous #chat sessions were framed such that participants were the decision-makers about which (if any) instructional strategies they wanted to consider and implement in their classroom. A key finding of my study suggests that professional learning is a personal experience; educators want the ability to choose with whom they interact, the design of the space, and the manner in which they engage in these experiences. In the next chapter, I consider the patterns that are apparent across all three chapters of findings and make recommendations resulting from my findings.
CHAPTER 7 CONCLUSION AND DISCUSSION

This study was designed to examine an online space for educators known as #sschat as a way to inform and shape more formal professional development experiences. I wondered if there were aspects of #sschat that educators might consider important beyond those features regarding “good” professional development documented by research (Avalos, 2011; Desimone, 2009; 2011a; Desimone et al., 2013; Desimone & Garet, 2015; Guskey & Yoon, 2009; Opfer & Pedder, 2011). I chose to use the affinity space conceptual framework (Gee, 2005) as a way to draw attention to the features of an online space for educators where participants voluntarily choose to participate (see also Curwood et al., 2013; Duncan, 2012; Durga, 2012; Gee, 2007, 2012; Gee & Hayes, 2010, 2012; Hayes & Duncan, 2012; Hayes & Lee, 2012; Lammers et al., 2012; Magnifico, 2012). The interactions that occurred within the #sschat affinity space almost always related in some way to someone interested with social studies education; however, what can be learned from this space is less about social studies instruction and more about what happens when a group of people with diverse experiences connect and interact in a technology-mediated environment regarding their shared interests in teaching and student learning.

In this chapter, I begin by discussing key findings from my study of the #sschat affinity space. Next, I briefly share some limitations that relate to the data collection aspect of my study. I describe the usefulness of the affinity space conceptual framework as a structure to provide understanding about what was happening in #sschat and to offer possible explanations regarding the behaviors of #sschat participants. I consider the
findings from this study as a way to draw conclusions for professional development. I share several ways my study contributes to the relatively new field of research involving online spaces for educators. I discuss implications in three broad categories: (a) for policy makers; (b) for practice; and (c) for research. I reflect upon my experiences as a researcher and share examples of how I have already begun to apply the findings from this study to more formal professional development experiences. This chapter concludes with my final thoughts regarding this study.

**Key Findings**

I found that the diverse perspectives that the participants brought to #sschat as a result of their different roles (e.g., students, pre-service, in-service, retired teachers, school and district-wide administrators, teacher educators) and educational settings (e.g., urban, suburban, rural, charter, private, online, high schools associated with universities, university-based teacher preparation programs) seem to be beneficial in meeting the needs and interests of the individual participants as well as contribute to the collective knowledge base inherent #sschat. Ironically, while the data emphasized the important role that context plays in teaching, it is the very act of connecting with educators *outside* of their schools and districts that allow them to be exposed to new ideas and consider different approaches that come from other places not constrained or limited by factors reflective of their educational institution (e.g., leadership, bell schedules, textbook series).

In addition, findings from my study illustrate the advantages of designing a professional learning space that flatten hierarchal structures or reduce limitations that restrict participation based on roles (e.g., administrators) or type of educational
institutions (e.g., private schools). In the case of #sschat, a close examination of what is happening in the affinity space brought to light the value of having participants—who take on fluid and interdependent roles—engage in the same learning spaces. For example, the data strongly suggest that administrators can gain insights from the ideas teachers share and the questions they ask. In a similar way, teachers interested in helping students become civic minded may be able to identify their needs by engaging with them in authentic political discussions (e.g., live-tweeting presidential primary debates). Likewise, teacher educators likely benefit from interacting in the same space with pre-service teachers; and, content providers seem to be at an advantage when they can hear the needs of educators first hand.

Another key finding from my study concerns the combination of social media tools, practitioners’ knowhow, and practices foster a participatory environment. I considered Gee’s Big “D”/little “d” understanding of discourse and conceptualized the notion of Big C/little c. The Collective (Big C)—the participants, their practices, and knowhow that they brought to the space and constructed during the interactive experiences in #sschat—was made possible by a collective of digital tools (little c) that appeared to provide a low barrier to participation and supported a wide range of participation. I discussed in great detail the significance of the digital technologies and their affordances in contributing to the participatory environment that existed in #sschat as a way to illustrate how participants leveraged (adapted) them for professional purposes. For instance, they provided the infrastructure for the various portals within

45 Big D reflects the practices that are adapted by a particular group of people and little d the conversation itself
#sschat (e.g., Twitter, Facebook, Storify), were leveraged to attract participants and encourage participation (e.g., #chat invitations, websites), and enabled multi-modal posts on Twitter and Facebook. Further, in a space where there are no face-to-face interactions, the affordances inherent in social media provide a means by which participants can create a visual representation of their professional selves (profiles). This is important because it serves as a reminder that the posts reflect the thoughts of participants who share similar interests and are not merely text on the screen. The icons (shortcut symbols) that are part of Twitter and Facebook facilitate instantaneous interactions among participants 24/7. Without these affordances, the experience would simply be reading text (passively) from the screen. The profiles remind us that we are connecting with other #sschat participants (who share a similar interest) and the icons and symbols (e.g., RT, @, like) remind us we have the opportunity to interact with #sschat participants or others outside of the affinity space. Moreover, the imagery helps us to visualize a space that appears to be collaborative, supportive, positive, interactive, and committed to individual and collective growth.

Lastly, the participants seemed to share similar beliefs about professional practice and professional learning and appeared to participate in #sschat for a wide range of reasons. Some appeared to want to deepen their understandings about teaching or were looking for alternate approaches to “change it up,” while others seemed to want to engage in a good chat or learn how to teach about a specific topic. Some were interested in sharing what their students were doing or talking about the activities they used to promote learning while others were interested in finding resources they could use to
teach, support their students in their learning or help them gain additional content knowledge. Nonetheless, it was their shared understandings about what it means to be a professional (e.g., self-directed learner, supportive of other educators), their commitment to the profession (e.g., contributor to a knowledge base), and the type of educator they wanted to be (e.g., proponent of student-centered learning, innovative, creative) that likely explained their interest in participating in #sschat and willingness to support other participants whom they never met. Moreover, the combination of the type of environment (e.g., nurturing), structure of the experiences (e.g., collaborative approach), relationships among participants (e.g., trust-based) and opportunities for participants to choose how they would participate (e.g., daily tweets, chatting with a purpose, mini-discussions) appeared to contribute to why participants voluntarily participated in this affinity space.

In contrast to many school or district-based professional development experiences, #sschat participants appeared to view each other as knowledgeable educators, were able to make their own choices about their learning trajectory, and acted as decision-makers regarding the degree to which they adopted or adapted new ideas, strategies or approaches that were discussed in #sschat. I found that the establishment of strong organizational structures and routines in #sschat—where participants’ knowhow and experiences were foregrounded—likely made it possible for participants to move fluidly from knower to learner (and the reverse) and engage in collaborative meaning-making experiences. Moreover, there were opportunities for participants to build on each other’s ideas and engage in reflective practice. Finally, capturing and archiving the #chat
sessions resulted in the creation of a rich repository of practitioner knowhow and experiences which could be tapped for just-in-time learning or serve as a much needed knowledge base for teacher educators and pre-service teachers who also participated in #sschat. In the next section, I briefly discuss some limitations related to the data collection of my study.

Limitations

The original design of my study intended to collect survey data and interview ten participants regarding their participation in #sschat. Although the number of survey respondents was limited to 12 people, their responses added considerable insights to my study. Only one participant was willing to be interviewed. While this was disappointing, I found that it resulted in a deep examination of the more than 6,000 tweets and 250 Facebook posts along with a thorough analysis of the other portals (e.g., #sschat and #hsgovchat websites, #worldgeochat Google Doc) as a way to make sense of what was happening among the various types of interactions within the #sschat affinity space. For example, as a result of looking closely at the interactions among participants during the #chat sessions, I found that role-shifting behavior appeared to support reflective thinking. This is important because while researchers have identified key elements that are believed to be important for effective professional development, they have not identified how teachers learn in these professional development experiences (Kennedy, 2016). I now turn to examine how the use of the affinity space conceptual framework drew attention to aspects of the affinity space that had not yet been captured by other researchers.
Usefulness of the Affinity Space Conceptual Framework

It is assumed that professional development is beneficial for teachers and teaching. However, there is considerable evidence that educators are frequently dissatisfied with mandated, school/district-based professional development experiences (Darling-Hammond, 2015; Gulamhussein, 2013; Grossman & Hirsh, 2009; Hill, 2009; OCED, 2014; Rodesiler et al., 2014; Tucker, 2011). In the past decade, researchers have agreed upon common features that contribute to effective professional development experiences (Avalos, 2011; Darling-Hammond, 2009; 2015; Desimone, 2009; 2011a; Desimone et al., 2013; Desimone & Garet, 2015; Gulamhussein, 2013; Guskey & Yoon, 2009; Kennedy, 2016; Opfer & Pedder, 2011). In my study of #sschat, Gee’s conceptual framework of affinity spaces proved to be a useful analytical tool because it brought to light several important considerations about designing professional development from the participant’s perspective. Further, it provided explanatory power as to why educators (and people interested in education) were voluntarily engaging in online spaces for educators and freely sharing their practitioner’s knowhow and experiences.

The notion that participants engage in affinity spaces because of their shared passion or interest drew attention to how the diverse experiences that participants brought to the space could be viewed as an asset for teacher education/teacher development. Typically, professional development experiences target specific groups of educators based on their roles (e.g., teachers, administrators, teacher educators) without considering the value of bringing groups of educators together that have different experiences and responsibilities. My analysis of the data strongly suggests that designing a space that was
open to anyone regardless of their status (e.g., teacher, administrator) or educational setting (e.g., K-12 school, teacher preparation) was beneficial to all participants because it provides a platform for participants to ask questions and share concerns in an environment where others are willing to offer responses based on their experiences and knowhow as practitioners who share similar interests. For instance, in thinking about how to reduce the theory/practice gap, #sschat serves as a useful model of how preservice, in-service and teacher educators can engage in the same space with each other—as co-learners—regarding topics of mutual concern. In a related way, data from my study strongly suggests that constructing a space designed to include educators and content providers can be mutually beneficial because of the reciprocal relationship that exists between them. In the case of Constitution Day, content providers shared a wide array of resources in advance of the federally mandated requirement to teach about the Constitution anticipating that educators would have a need for them.

In addition, recognizing the shared interest as the attractor to the affinity space provides an alternate way to think about why participants were willing to share their highly personalized craft knowledge. Rheingold (2014) argued that it was necessary to share resources as a way to be viewed as a valued contributor to the space. This type of thinking has led some researchers to a negative view of lurkers (i.e., people who do not contribute) (El-Hani & Greca, 2013; Matzat, 2010, 2012; Sun et al., 2014). Data from my study showed that participants regularly announced they were going to lurk during #chat sessions and co-leaders/moderators and other participants provided responses that were supportive of this type of peripheral role. Given that in an affinity space the
commitment is to the shared interest and creation of a rich knowledge base that anyone can “pull” from at any time regardless of their contribution to this base (cf. Hagel et al., 2010), it follows that lurking is not seen as problem in the #sschat affinity space.

The affinity space conceptual framework places a spotlight on the various portals within #sschat. The emerging body of literature regarding online spaces for educators has focused on spaces bounded by the use of a single type of social media (Biddolph & Curwood, 2016; Carpenter, 2015; Carpenter & Krutka, 2014; Colwell & Hutchison, 2018; Forte et al., 2012; Krutka & Carpenter, 2016; Hart & Steinbrecher, 2014; Holmes et al., 2013; Pino-Silva & Mayora, 2010; Ranieri et al., 2013; Rodesiler, 2014; Visser et al., 2014; Wesely, 2013). As a result researchers have not consider the role that other associated portals might play. My study highlights the critically important role that each portal played with regard to interactions among the #sschat participants. For example, the websites (i.e., sschat.org, hsgovchat.blogspot.com) served as central hubs for attracting and sustaining interest and providing access to the archived #chat sessions. The #worldgeochat Google Doc made it possible for anyone to contribute to the agenda for the synchronous #chat by becoming involved in the creation of #chat questions. Further, by closely examining the portals my analysis went beyond recognizing that there were opportunities for synchronous and asynchronous interactions that are beneficial based on participants’ individual needs as other studies had done. I found that participants not only shared and gained resources and asked questions and provided responses through posting daily comments to Facebook and Twitter; they also took advantage of the affordances within Facebook and Twitter to interact with participants
regarding topics of mutual interest. As a result, participants were able to engage in three different types of collegial discussions (e.g., chatting with a purpose, side conversations, mini-discussions) about similar topic based on their needs and interests. In addition, having several #hashtags (portals) to follow drew attention to the unique characteristics of each hashtag (e.g., content-focus) and highlighted the nuanced approaches each used to sustain interest (e.g., how archived #chats were made accessible). Further, the close examination of each portal demonstrated that providing multiple pathways to address similar topics is one way to differentiate learning opportunities for educators who have different levels of experiences and needs based on their students.

In a related way, the recognition of “distributed knowledge” as a key element within the affinity space conceptual framework places a spotlight on the knowhow and experiences that participants brought to the space through their comments and links to their own social media spaces (e.g., blogs). Other researchers found that participants appreciated the sharing of resources (Biddolph & Curwood, 2016; Blitz, 2013; Booth, 2012; Byington, 2011; Carpenter & Krutka, 2014; Duncan-Howell, 2010; El-Hani & Greca, 2013; Forte et al., 2012; Hargadon, 2010; Hart & Steinbrecher, 2014; Herbert, 2012; Holmes et al., 2013; Hur & Brush, 2009; Krutka, 2017; Krutka & Carpenter, 2015; Pino-Silva & Mayora, 2010; Ranieri et al., 2012; Rodesiler, 2014; Rodesiler et al., 2014; Sari & Tedjasaputra, 2012; Schlager et al., 2009; Seo & Han, 2013; Visser et al., 2014; Wesely, 2013) but likely did not examine the links to gain an understanding of what they might offer or how they might be used by other participants. I personally found access to participants’ blogs about their experiences with shifting their instructional approaches
(e.g., implementing #genius hours, promoting student inquiry) an extremely valuable addition to the knowledge base created in and through #sschat because their first-hand accounts documented the challenges, successes, and changes they intend to make next time in a more detailed manner than was possible for the participants to share during the synchronous #chats (and the limitation at the time of 140 character tweets).

Other studies of online spaces for educators have conceptualized leadership as more distributed (Carpenter & Krutka, 2014; Wesely, 2013). Within the conceptual framework for affinity spaces, leadership is viewed as porous. That is, participants move in and out of roles associated with leadership such as becoming mentors, facilitators, and counselors when those skills would be beneficial to other participants. In a similar way, leaders will “step out” of a leadership role when they want to move into the role of a learner or allow others to take on leadership responsibilities. Findings from my study present a different view of leadership. The data suggest that co-leaders/moderators took responsibility to complete managerial tasks (e.g., sending out #chat invitations, archiving #chats) and did not present themselves as charismatic leaders responsible for creating a vision for the space. Findings from my study suggest a need to reconsider the concept of leadership in affinity spaces in light of the expanded notions of participants’ roles that were apparent in #sschat. My data strongly suggests that the ability for co-leaders/moderators to “step out” of the role of #chat facilitator and for newcomers or regular participants to “step in” to the role was likely made possible as a result of the use of social media and the practices associated with engaging in synchronous #chats. In a similar way, the design of the #chat sessions appears to encourage participants to move
from learner to knower or mentor and back based on the #chat topic or question under discussion. Opportunities for role-shifting seem to promote a more democratic and collaborative learning environment.

**Drawing Conclusions Regarding Professional Development**

The purpose of my study was to examine what was happening in an online space for educators (#sschat)—where participants voluntarily engage in topics related to social studies education—for the purpose of considering how these experiences might be used to shape the design of more formal professional learning sessions. In Chapter 6, I provided an analysis of the features of effective professional development (Desimone & Garet, 2015) and offered some expanded ways to think about those ideas based on what was happening in the #sschat affinity space. My analysis offers compelling evidence to suggest there is not a single right way to design professional development experiences. The ideas I outline in this section reflect findings from #sschat, an affinity space created by educators for educators. As a result, they foreground the participant’s perspective in regard to designing a space conducive to learning. In this section, I discuss three principles to consider when planning professional learning opportunities: (a) teachers benefit from having the same types of learning experiences that we know are good for students, (b) professional learning is a personal experience, and (c) technology should be leveraged in service to teacher learning. It is important to note that these principles should not be thought of as items on a checklist that are to be implemented in all professional development experiences. Rather it is critical to recognize that teacher learning is a complex endeavor. Furthermore, it would be a mistake to plan experiences
without realizing the important role that context plays in teacher learning and the
interconnected nature of these principles discussed below.

**Experiences Good for Students Are Good for Teachers**

The first principle suggests that the same types of experiences that are good for
student learning are good for teacher learning. For example, professional development
experiences should be authentic, experiential, inquiry-based, differentiated, relevant,
collaborative, inclusive of diverse perspectives, active, and encourage open-mindedness.
In the same way that teachers are encouraged to design lessons that help build skills to
address real-world problems, professional development experiences should focus on
topics that teachers find challenging or of interest. Additionally, professional
development experiences should provide opportunities for educators to engage in regular
collaborative discussions in which their practitioner’s knowhow and real-life experiences
are valuable contributions. This goes beyond asking educators “to turn and talk” about
something that the facilitator thinks is important. Educators need to know that what they
are sharing adds value to the experiences.

The #chat sessions within #sschat provided a useful model of the type of
structures that promoted a participatory environment which likely helped educators feel
comfortable sharing their ideas. In the same way that teachers plan activities to help
students connect new learning to what they already know, formal professional
development should consider ways to build “bridges” from what practitioners already
know to new approaches and instructional shifts being proposed.
Professional Learning is a Personal Experience

In many professional development experiences, educators are told what they are going to learn, how they are going to learn (e.g., activities), and how to apply this new knowledge. My analysis indicated that educators want to have choice when it comes to professional learning. Not everyone is going to want to participate in an online affinity space. And the extent to which educators want choice to play a significant role in learning is not the same for all people. However, the idea of choice is something that we know is good for learning (Curwood et al., 2013; Duncan, 2012; Durga, 2012; Gee, 2007, 2012; Gee & Hayes, 2010, 2012; Hagel et al., 2012; Hayes & Duncan, 2012; Hayes & Lee, 2012; Lammers et al., 2012; Magnifico, 2012; Seely Brown & Adler, 2008; Thomas & Brown, 2011). While the examples shared in this discussion reflect what was learned from the #sschat affinity space, the same ideas could be applied holistically in various degrees to more formal professional development experiences. Participants in my study chose to engage in the #sschat affinity space\(^6\) which suggests that educators want to choose with whom they interact when it comes to professional learning. In addition, educators want to have choice about the design of the space (e.g., asynchronous, synchronous), the type of activities that they engage in (e.g., chatting with a purpose, side conversations, mini-discussion), and their role (e.g., lurker, learner, knower).

Educators also desire opportunities to share their voice, as attested to by my study as well. This includes opportunities to discuss ideas based on their experiences, build on the ideas of others, as well as ask questions that are specific to their needs. #sschat

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\(^6\) #sschat is one of many social studies / history focused Twitter hashtags. Other examples include #SSTLAP (SS teaching like a pirate), #WHAP (world history advanced placement (AP), etc.)
appeared to be a democratic space in that all voices had *opportunities* to be heard and all participants had the chance to hear all voices—participants were not segregated by age, status, roles, location or time. As a point of clarification, the design of the #sschat affinity space made it possible for anyone in the world to participate in this space; although, it is duly noted that this space primarily had a U.S.-centric focus with regard to the topics chosen for synchronous #chat sessions and mini-discussions17 (see Chapter 5). In addition, the synchronous #chats took place during times that appeared to be designed for those living in Eastern, Central, or Mountain Standard Time zones. With that said, an analysis of the data (including the world map of participants, see Figure 4.1) strongly suggests that participants from around the world shared their ideas (voices) in various ways by posting to the asynchronous (e.g., #sschat Facebook page) and synchronous (e.g., #worldgeochat) portals available in the #sschat affinity space.

Further, educators seemed to value engaging in collaborative learning experiences with others who have similar ideas about professional practice and professional learning. In #sschat, participants likely saw their role as preparing students with the skills, knowledge, and dispositions to address the challenges of living in a rapidly changing world. This is a very different approach to teaching from those who think a teacher’s responsibility is to ensure their students learn a pre-determined set of facts. My analysis strongly suggests #sschat participants were forward thinking educators who like to push boundaries and were self-directed when it came to their own learning. In short, educators appeared to appreciate autonomy regarding what they learn, with whom they learn, how

17 Mini-discussions began as a Facebook post by #sschat co-leaders and included a set of interactions in which there were at least five comments related to the same Facebook post (see Chapter 5).
they learn, as well as where and when they learn.

Educators participated in #sschat for many reasons. There were opportunities for the participants to learn, contribute to the profession (knowledge base), engage in discussions, and be exposed to or take away ideas. Recognizing the importance of context and the complexity of teaching and learning, the discussions within the synchronous #chat sessions were framed such that participants were the decision-makers about which (if any) ideas, approaches or strategies they wanted to consider and implement in their classroom.

My study provides strong evidence that the key to spaces like #sschat is to attract participants with diverse experiences and skills sets. It would be a mistake to omit acknowledging the many unique characteristics that participants bring to a space such as #sschat that enhance its value. My analysis indicates it was more than attracting people who were willing to contribute their knowhow and experiences to the collective. For instance, the “regular” participants served to model the practices that were inherent in the space for the newcomers in implicit and explicit ways (e.g., welcoming newbies). Participants who posted supportive responses appeared to foster a nurturing environment which in turn helped participants feel safe and comfortable sharing the struggles they faced. Pre-service teachers asked questions that sparked rich discussions among practitioners about how they chose to design certain activities in support student learning. This particular set of interactions illustrates that teaching is a complex enterprise. Reducing it to a set of steps to be followed not only does a disservice to the profession; but, also contributes to the myth that anyone can teach. An important takeaway from
#sschat is to identify and capitalize on the strengths that educators bring to professional learning experiences as a way to support the needs and interests of other individuals and the collective knowledge base.

**Leverage Digital Technologies and their Affordances in Service to Teacher Learning**

Almost a decade ago, Lieberman and Pointer Mace (2010) argued that social media showed great potential for scaling up professional learning experiences because of their ability to make practice public and promote new types of conversations about teaching. While data from my study cannot speak to whether their prediction has come true, they do provide compelling evidence which suggests that digital technologies removed time and geographic constraints for #sschat participants and made it feasible to engage in rich discussions about practice much in the way they imagined. To that end, digital technologies and their affordances in #sschat were leveraged to promote multi-modal communication, creativity, collaboration, problem-solving, active engagement, reflective practices, open access, flexibility, feedback, boundary crossing, knowhow and experience sharing, and distributed power. In designing professional development experiences, consideration should be given to how digital technologies can amplify and extend learning to a range of educators by creating an infrastructure that facilitates collaborative learning experiences (asynchronous and synchronous interactions), fosters a participatory environment, provides a sustainable space that includes access to educators and others interested in education, a curation space (e.g., #chat archives), and a collective knowledge base. The intent of this long list of ways—in which digital technologies might be leveraged to support teacher learning—was to draw attention to the many
factors that contribute to teacher learning. Instead of being conceived as a checklist, these ideas are shared as a way to illustrate the wide range of possibilities of how digital technologies might be leveraged during professional development experiences. Factors such as who attends the sessions and their comfort level with digital technologies, along with the intended length, and type of interactions will affect the sort of digital technologies best suited to support the professional development experiences.

Keeping in mind the goal is to attract and maintain the interests of people that bring diverse experiences and ways of doing things to support the diverse needs of educators; the selection of digital technologies is an important factor. #sschat was built on social media. This appeared to be a smart choice because the same tools that educators used in their personal lives were easily adaptable for professional purposes in the case of the #sschat affinity space. For example, participants were able to create a profile in a manner in which they had choice about how they presented their professional selves. It would be wrong not to acknowledge that there are barriers associated with digital technologies. For professional development purposes, educators need ubiquitous access to high speed internet access, digital devices, time to engage in these types of experiences along with familiarity of how to participate in various types of interactions (e.g., synchronous #chats) and awareness of the practices associated with the online space. Educators may not be able to access social media while at school; and some educators may be reluctant to use various forms of social media because of the negative connotations associated with them. Nonetheless, social media appeared to be useful for providing a space where participants could quickly ask questions and find resources,
create recognizable “brands” associated with each of the #hashtags, attract participants, and maintain a central hub where valuable resources were stored (e.g., #chat archives). In Chapter 5, I presented ample evidence that demonstrated access to the previous recorded synchronous #chat sessions was valued by #sschat participants. It is conceivable that providing access to the #chat archives was viewed as an attractor to #sschat participants given that other researchers have found online warehouses of student and teacher artifacts may contribute to sustaining innovative practices and promote creativity because teachers can build on what has already been done (Klein, Walter & Riordan, 2015).

The data from my study provided evidence that digital technologies and their affordances fostered a range of experiences that contributed to a space conducive to learning. By way of example, the #chat sessions promoted reflective thinking by facilitating interactions with others who had similar or different experiences on a regular basis. As a result, participants were able to cross time and geographic boundaries and engage in reflective practices in a way that is not traditionally possible in schools. In addition, the use of digital technologies appeared to overcome obstacles found in face-to-face experiences such as the side-bar conversations (see Chapter 5) and instantaneous sharing of participant-created resources in support of just-in-time learning. In addition, #sschat was designed such that the same topic could be addressed through a variety of interactions types (e.g., chatting with a purpose, mini-discussions) based on the participants needs and interests. To be clear, it is not the digital technologies that are responsible for rich discussions, but, rather, the type of technology that is selected and
what educators do using that technology that matters (Knobel & Kalman, 2016). In 
#sschat, participants had multiple ways that they could contribute to the profession (e.g.,
serve as a guest #chat facilitator, share experiences and resources they created). In
addition, they had flexibility in how they shared their resources (e.g., resource format,
attachment, link to self-created social media site). All of these examples point to the
importance of considering how digital technologies might be leveraged to support the
type of interactions that are likely to contribute to teacher learning based on the purpose
of the professional development and the intended audience.

Contributions to the Field

The literature regarding affinity spaces has documented the actions of individuals
who connect and interact with others regarding their shared interests or passions. My
study provides evidence that affinity spaces can be useful for individuals who want to
engage with others regarding their shared professional interests. The findings strongly
suggest that bringing together professionals with diverse experiences may be beneficial
because it can lead to rich exchanges of information and experiences. Moreover,
welcoming students and pre-service teachers to a space designed for professionals
provides an opportunity for these groups to see firsthand the practices associated with
educators engaging in professional learning experiences.

My study also adds to understandings regarding new methodologies and data
collection processes involving research of online spaces for educators. As a participant in
#sschat, for example, my insider status helped to foreground critical aspects of the
interactions that likely contributed to collaborative meaning-making experiences.
Previous investigations of online spaces for educators have relied heavily—if not almost exclusively—on survey data and interviews which depend on participants’ understandings of their sense-making. Moreover, the data are limited by the questions that are asked, the choices that are provided for them to choose their responses (e.g., close-ended, Likert-type) and the researchers’ ability to elicit useful information during the interviews. By closely examining the interactions, the data brought to light the complexities inherent in the interactions. For example, among other critically important actions (e.g., building on the ideas of others), participants appeared to engage in reflective thinking as part of their role-shifting experiences. While not conclusive, this insight helps to contribute to our understanding of how teachers learn. In other studies, participants asserted their online experiences with other educators were among some of their best professional learning experiences without providing any indications of how learning might have happened (Duncan-Howell, 2010; Carpenter & Krutka, 2014; USED, 2017; Wesely, 2013).

The use of NVivo10 to capture postings from Twitter and Facebook provided a rich collection of data points. In addition to recording all of the text data, it also collected useful information that could not viewed on the social media sites (e.g., location of the participants who posted comments). NVivo10 was able to create a map using the coordinates of each participant (see Figure 4.1) which illustrated the global nature of the #sschat affinity space. The software also filtered information from the posts (e.g., retweets, #hashtags) which was helpful when considering the potential opportunities for boundary crossing and their possible implications. In short, my analysis of the data
captured by NVivo10 adds to our understandings of online spaces for educators in ways that are not possible when using survey data or interviews alone.

Implications

There is a risk that the accounting presented in this dissertation may be perceived as so beneficial that others will attempt to replicate #sschat based on the assumption that some type of “magic” will happen and there will be similar results with the newly created affinity space. But it must be said that what happens in #sschat cannot be reduced to a checklist of activities and/or websites to be created. At the core of #sschat are the participants. Because each participant brings unique contributions, it is unlikely that the exact experience could be duplicated, nor should it be. The intent of this study was not to identify the characteristics of #sschat so that it could be reproduced. Instead, the research question inquired what could be learned from #sschat to help inform and shape more formal professional development experiences. With that in mind, I provide some thoughts to guide policy makers, for teacher educators and other professionals, and future research.

Implications for Policy Makers

I concur with other researchers (Krutka, Carpenter & Trust, 2017) who have warned about the dangers of “bureaucratizing the voluntary, participatory cultures which attract educators to informal learning in the first place” (p. 251). Instead of mandating the types of professional development experiences that are acceptable (e.g., credit-bearing coursework) or the number of hours (e.g., seat time), policy makers should give districts the authority to allow their educators to have choice about the type of
professional learning experiences in which they engage and encourage them to provide opportunities for educators to interact with other educators outside their school or district on a regular basis.

It would be wise for policymakers to set the vision for teaching and student learning according to research and let educators and schools determine how to do this based on their context. Policymakers should consider how to leverage state and federal agencies and non-profit organizations to provide support to educators and schools as they design and implement professional development experiences and make recommendations regarding the types of partnerships that will be beneficial. Moreover, policymakers can provide funding for pilot programs and research that foregrounds the types of participatory experiences that value practitioner’s knowhow and experiences and allows for teacher autonomy. Further, it is recommended that policymakers set up formal and informal structures by which a range of educators who represent different types of educational settings can provide input on topics related to professional development and student learning on a regular basis. The intent of this process would be to promote open and ongoing dialogue in support of teacher learning. Finally, policymakers may want to attend/participate in professional development experiences, particularly those in which educators play a major role in its design and implementation. This will enable the policymakers to gain a sense of the complexities of teaching and see firsthand what happens when teachers are trusted to take charge of their learning.

**Implications for Practice**

The #sschat affinity space provides an example of a differentiated approach to
professional learning that may be useful for teacher educators and other professionals who support teacher learning to consider. Recognizing the situated nature of teacher learning acknowledges that educators vary in the type of knowhow and experiences they bring to the professional development sessions. Designing professional development in which educators have choice about how they interact (e.g., lurker, learner, knower) takes into consideration their different needs and interests. By placing practitioner knowledge center stage, attendees have an opportunity to learn from educators with authentic experiences that might be similar or different from their own. Understanding the important role that context plays in teaching emphasizes the need to design experiences based on an inquiry stance rather than a “one-size” fits all style. This approach acknowledges educators have different needs and interests regarding their learning based on the own experiences, the students they teach, and the values of the educational community in which they work.

My study provides evidence that educators want the opportunity to engage with other professionals on a regular basis. Teaching is an isolating profession. Along with participating in hour-long synchronous experiences, #sschat participants had the opportunity to share (or respond to) ideas, resources, and requests with other interested professionals anytime, anywhere. Not all interactions with other professionals need to result in shifts in instructional practice nor do they need to focus on student achievement. Sometimes educators may want to engage in discussions about teaching with other professionals who share similar ideas about their roles and responsibilities because they find it enjoyable. Others may engage in conversations because they want to know more
or contribute to the profession. Finally, there may be times when they want to share their struggles with educators who understand the complexities of teaching and are willing to provide support. These examples suggest teacher educators and other professionals should consider the importance of designing a nurturing environment that will enable educators to feel comfortable sharing their concerns as well as their knowhow and experiences.

Historically, teacher educators in teacher preparation programs have been responsible for preparing future teachers. They provide pre-service teachers with the latest theoretical understandings about students learning, provide course work in pedagogy, and work with districts to offer practicum experiences. Districts assume very little responsibility for preparing teachers for the teaching profession until they become employees. This stark division in responsibility has been blamed for the theory/practice gap and is one of many reasons why new teachers report feeling unprepared to do their job. This raises several questions. Who “owns” the knowledge? And who benefits when practicing educators and teacher educators do not have time and opportunity to collaborate on how to prepare future teachers?

Goodlad (1993) has argued expecting different groups of people to be responsible for specific parts of teacher training has resulted in incoherent preparation programs and poorly prepared teachers. He has proposed the formation of partnerships between educators from schools and universities responsible for preparing future teachers with each group having an equal voice in this process. The #sschat affinity space demonstrated multiple benefits of having pre-service teachers, in-service teachers, and
teacher educators in the same space learning together. To begin, these pre-service teachers were experiencing firsthand how to engage in collegial discussions, get/provide support for other colleagues as well as gain access to a professional network of educators and knowledge base. In addition, they were observing seasoned educators (from schools and teacher prep programs) engage in this space as co-learners. As a result, they were introduced to the types of experiences that educators may find useful for their own meaning-making (e.g., collaborative, reflective). In terms of their own professional growth, pre-service teachers were able to learn from practitioners with a wide range of experiences. This distributed mentorship approach suggests that they had opportunities to be exposed to ideas and issues that might not be addressed in their formal clinical experience.

The teacher educators, practitioners, and other professionals in #sschat also benefitted from sharing the space with the pre-service teachers. Teacher educators were able to hear directly from practitioners regarding the innovative approaches they were currently using in schools (e.g., smartphones to support learning) as well as the challenges that they face (e.g., not enough time). In addition, they were exposed to the latest (free) resources that were available from government agencies, non-profit organizations, and content providers. Likewise, practitioners benefitted from engaging with teacher educators who shared the relevant research about student learning. This collaborative approach to teacher learning provides an example of pre-service teachers, in-service teachers, and teacher educators as co-learners engaging together in meaning-making activities and potentially co-constructing new knowledge.
Implications for Research

Although online spaces for educators is an emerging field of research, it is time to acknowledge that future research should move beyond talking about what’s being shared and use theory to make sense of what is happening when educators engage in affinity spaces and interact with participants who bring diverse ideas and experiences to the spaces. To that end, it would be useful for researchers to investigate other online spaces for educators using an insider’s perspective as a way to identify those aspects regarding teacher learning that are similar or different from #sschat.

It is also important to design studies that follow participants and see what impact, if any, participating in an online affinity space has on the individuals, the people they interact with and/or their students. It is not known the degree to which the experiences in online spaces for educators may result in shifts in instructional practice, changes in relationships with colleagues or students or possibly heightened feelings of confidence or self-efficacy.

Other researchers have found that participants who engage in these types of online spaces bring back ideas and share with colleagues in their schools and districts (Carpenter & Krutka, 2014; Forte et al., 2012; Wesely, 2013). Data collected for my study did not address what participants did after they engaged in #sschat; therefore, it is not known whether #sschat participants shared anything with their colleagues in their schools or districts. However, there were indications that some types of boundary crossing behavior was occurring. For example, affordances associated with social media (e.g., RT, @, #hashtags) were leveraged by participants to share ideas, experiences, and resources with
their networks outside of #sschat (potentially people they may never meet). A question that comes to mind is what can be learned by examining who is retweeting and who benefits directly and indirectly from the retweets. In a similar way, there are questions about the pre-service teachers that engaged in this space and the type of impact, if any, their retweets and inclusion of additional #hashtags had on others who were the recipients of this information (e.g., pre-service teachers, in-service teachers, teacher educators). Finally, other researchers have discussed the notion that participants bring back ideas to their school colleagues (Forte et al., 2012) but have not considered the importance of the ideas and experiences participants brought to the space. This raises the question regarding the factors that encourage participants with valuable knowhow and experiences or dispositions to engage in spaces and share what they know with other educators that do not work in their school or district.

Although my study did not focus in the actions of specific groups of participants in any great detail, there were sufficient data to suggest a need for future research to examine what happens when educators and students engage in learning in the same space. As discussed previously, #hsgovchat participants engaged in live tweeting with their students during the debates because they had hoped to help them develop the skills necessary to engage in meaningful political discussions. It was through these interactions that the educators became aware of the students’ strengths and weaknesses and identified potential scaffolding activities. Although quite unusual, this experiential learning experience shows potential for educators and students to learn together in ways that would not be possible in a typical classroom setting. Future researchers may want to
investigate what type of professional learning experiences can support teachers and students learning together.

**Researcher Reflection and Action**

Participants and outsiders may view #sschat as a personal learning network, a community of practice, or as an online professional learning community. However, my insider perspective enabled me to move beyond these types of labels and consider the type of interactions that were occurring within this space and their implications for teacher learning and teacher development. In addition, my familiarity with a variety of online spaces for educators helped me to identify the behaviors that were unique to the #sschat affinity space. For example, I understood #sschat to be comprised of multiple portals which contributed directly (e.g., Facebook) and indirectly (e.g., #worldgeochat Google Doc) to offering multiple pathways created for participants to interact with others within this space. I had familiarity with the “practices” inherent in the weekly #sschat space but had little understanding of the other #hashtag spaces which helped me to identify the unique aspect of each and then wonder about the similarities and differences. Further, as an insider I benefitted from support provided by the weekly #sschat co-leaders to engage in this research. For example, they publically welcomed me as a researcher and acknowledged the benefits of documenting what was happening in this space.

As someone who works for a state department of education and is responsible for creating and delivering “formal” professional development sessions, I have already been able to apply what I have learned from studying #sschat. As one example, I have been hosting a monthly webinar series with the National Archives for the past five years. As a
result of my findings from this study, I have made several changes to the way I leverage digital technologies to attract participants to this webinar series. For example, I now structure the webinar experience to facilitate interactions among the participants. In addition, this year I have added images that reflect the monthly topic to the email reminders I send out to each of the registrants. Similar to the way the co-leaders/moderators frequently posted their #chat invitations, I now send out multiple reminders as it gets closer to the webinar because teachers are busy and likely benefit from seeing the message more than one time. Like the synchronous #chat sessions, the webinars take place the same day/time each month (e.g., second Wednesdays, from 3-4pm) so participants can make it part of their routine and plan accordingly. I use a version of online software that includes a chat box so that the participants can interact during each session with each other and share their ideas and experiences (in previous years, I used a version that only allowed the participants to interact with the presenter). I record each webinar session and make the recording available to anyone (free of charge) by posting it on the state department website. In addition, I send out an email to everyone who registered with a link to the recording and a list of the resource links that were shared during the session. Similar to the #sschat participants, I am interested in supporting other educators in their learning trajectories. Consequently, everything I do is available online for anyone that might find it useful. In addition, I now duplicate the actions of the #sschat participants who retweeted the #chat invitations to their respective networks and send the state department broadcast memo—that goes out to more than 600

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48 Interestingly, after receiving one of the reminder emails, registrants let me know they are no longer able to attend the session. As a result, I am able to open their spaces to others on the waitlist.
districts with information about the webinar series—to my professional networks (including teacher educators) to make them aware of this professional development experience. Indeed, I have noticed that more teacher educators and pre-service teachers now regularly attend the webinars. Finally, I have shared all the processes and structures that I have put in place to implement webinars with my colleagues at the state department and made myself available to assist them in similar endeavors.

It is difficult to say empirically what impact these changes have had on the educators who attend the webinars or my colleagues. Anecdotally, I can say that I now regularly receive emails from the attendees expressing their appreciation for the sessions and my efforts to curate and share the resources from the webinars. Four years later, there are many repeat educators who continue to attend the sessions which suggests that they likely find some value in what is being shared and/or enjoy engaging with other professionals in the field regarding a topic of shared interest. Moreover, my colleagues have begun to structure the professional development experiences that they lead with a mindset of open access to all. In addition, they are now intentionally designing some sessions to foster a collaborative approach to mean-making (e.g., including using Google Docs as a collaborative platform).

Finally, this research study and the process of engaging as a novice researcher, has helped to inform and shape the work that I do in my role at the department of education. I have noticed there are many researchers who take a critical stance towards schooling and the structures within educational institutions that continue to support power and privilege. Some use their research to give a voice to marginalized groups and
call for change in educational systems. Others use their academic position to bring awareness of the injustices inherent in educational settings and look to support marginalized groups to gain access to resources (e.g., knowledge, opportunity) that have not traditionally been available to them. This experience has provided me, an insider at the department of education, with the confidence and support of my empirical research to begin to make changes regarding the bureaucratic structures that have traditionally benefitted those with power and privilege and ignored or punished marginalized groups of students and educators.

**Conclusion**

For professional development to be of any value to educators, consideration must be given to other aspects of the design beyond what has been deemed as effective features. Much of the research about professional development looks at what has been learned (or not) from the experience or the impact of the session without considering the design of the experiences from the participants’ perspective. My study highlights the types of experiences that educators find valuable from their perspective and provides insights as to their motivation to interact with others with similar ideas about professional responsibilities regarding topics of mutual interest. Findings from my study suggest three principles should guide those involved with teacher learning and teacher development and were discussed earlier in this chapter.

This is an emerging field of teacher learning research and there is a need to look beyond why educators voluntarily engage in these online spaces and examine what educators are doing in these spaces that contribute to how they make meaning of their
experiences as well as contribute to our understandings of how teachers learn. As researchers we need ask questions about what is being shared. For example, in what ways might the photographs of student work or teacher-created performance tasks provide examples of tacit knowledge? Beyond content, what are the important considerations for educators to think about to prepare their students for a knowledge economy (e.g., skills, dispositions)?

I began by wondering what could be learned from an online space for educators that could help to inform and shape more formal professional development experiences. This study brought to light the importance of thinking about educators as learners and providing opportunities for them to engage in collaborative and role-shifting experiences in support of their sense-making. It also illustrated the value of bringing together educators with diverse roles and responsibilities who are willing to share their practitioners’ knowhow and experiences as a way to facilitate individual growth and the creation of a knowledge base. Additionally, my study highlighted how digital technologies were leveraged to provide participants with voice and choice with regard to how and when they chose to interact in the space. Moreover, it demonstrated how social media was adapted to support the type of interactions that reflected the needs and interests of the educators. In the end, this study was an examination of the #sschat affinity space for just one month. However, it included an incredibly rich source of data that provided useful insights for teacher educators responsible for providing professional development. #sschat served as a model where educators went to engage in discussions, share resources (knowhow and experiences), and provide support to others who thought
similarly regarding their role as a professional and their responsibilities as educators.

Finally, this study drew attention to the complexities of teacher learning and teacher development. It would be a mistake to think meaningful professional development experiences can be defined as a series of steps or a checklist of features to be incorporated. Rather, teacher educators are wise to acknowledge the purpose of the session(s) can be best addressed by designing experiences that recognize the valuable knowhow and experiences that educators bring, provide opportunities for educators to have voice and choice, and foster a nurturing space in support of collaborative and reflective practices.
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APPENDIX A

Online Questionnaire about Your Experiences with #sschat

Thank you in advance for completing this survey. The purpose of collecting demographic information is to gain a sense of the people that participant in #sschat. This information is for descriptive purposes only. You may skip any questions you do not want to answer.

* Required

Consent to Participate in Survey *

By clicking 'yes' you are indicating that you have read the consent form available at [http://tinyurl.com/sschatconsentform](http://tinyurl.com/sschatconsentform) and agree to participate in the survey.

- [ ] Yes, I consent to participate in the survey
- [ ] Other: [ ]

1. Please select the title that most closely matches your position. Choose ALL that apply.

- [ ] Pre-service teacher or college student
- [ ] Elementary teacher
- [ ] Middle/high school teacher
- [ ] Other K-12 educator (technology coach, literacy coach, staff developer)
- [ ] Administrator
- [ ] Higher education faculty
- [ ] Retired educator
- [ ] Individual working as a consultant, for a non-profit, in education industry
- [ ] Other: [ ]

2. In what content area do you have expertise?

- [ ] Social studies/history
- [ ] Other: [ ]

3. Where do you live?

(Please identify the STATE if you live in the United States and the COUNTRY if you live outside the United States. Do NOT include your actual address or town/city.)

[ ]

4. How would you describe your school?
5. Please select the age range that describes you

6. Please identify your gender.

7. Which of the following best represents your racial or ethnic heritage? Choose all that apply.
   - Non-Hispanic White or Euro-American
   - Black, Afro-Caribbean, or African American
   - Latino or Hispanic American
   - South Asian or Indian American
   - Middle Eastern or Arab American
   - Native American or Alaskan Native
   - Prefer not to answer
   - Other:

8. How many years have you been an educator and/or worked in the education field (total years)?

9. How long have you been going to #sschat?

10. On average, how often do you go to any sites associated with #sschat (e.g., weekly Twitter chat, Twitter feed, sschat.org, Facebook page, etc.)?

11. How often do you use the following tools in your personal life?

<table>
<thead>
<tr>
<th>Tool</th>
<th>Never</th>
<th>Less than once/month</th>
<th>Monthly</th>
<th>Weekly</th>
<th>Daily</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facebook</td>
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<tr>
<td>Twitter</td>
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<tr>
<td>Pinterest</td>
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</tr>
</tbody>
</table>

12. Not including #sschat, how often do you use the following tools in your professional life?

<table>
<thead>
<tr>
<th>Tool</th>
<th>Never</th>
<th>Less than once/month</th>
<th>Monthly</th>
<th>Weekly</th>
<th>Daily</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facebook</td>
<td></td>
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</tr>
</tbody>
</table>
13. Please select the phrase that best describes how you interact when you go to #sschat.

- Read responses but do not post comments or questions
- Occasionally post comments or questions
- Regularly post comments or questions
- Other: [ ]

14. There are many reasons why a person may go to #sschat. Please indicate how important each reason is for you.

<table>
<thead>
<tr>
<th>Reason</th>
<th>not important at all</th>
<th>somewhat important</th>
<th>important</th>
<th>very important</th>
</tr>
</thead>
<tbody>
<tr>
<td>to get/share resources for teaching</td>
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<tr>
<td>to get/share instructional strategies</td>
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<tr>
<td>to give/get support</td>
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<td>to remain abreast of current educational trends/issues</td>
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<tr>
<td>contribute to the profession</td>
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<tr>
<td>to share your voice with a larger audience</td>
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<tr>
<td>to assume a leadership role</td>
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<tr>
<td>to learn new ways to</td>
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</tr>
<tr>
<td></td>
<td>not important at all</td>
<td>somewhat important</td>
<td>important</td>
<td>very important</td>
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<td>-------------------------</td>
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<tr>
<td>engage students</td>
<td></td>
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<td></td>
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<tr>
<td>to learn strategies to</td>
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<td></td>
</tr>
<tr>
<td>support students with</td>
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<tr>
<td>unique learning needs</td>
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<td></td>
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<tr>
<td>to learn strategies to</td>
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<tr>
<td>support students with</td>
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<tr>
<td>are learning English</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>to learn from experts</td>
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<tr>
<td>to network</td>
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<tr>
<td>to interact with people</td>
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<tr>
<td>from other schools and</td>
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<tr>
<td>districts</td>
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</tbody>
</table>

15. Do you typically follow #sschat weekly chat live or view later using the online archive?
   - [ ] View #sschat weekly chat live
   - [ ] View archive of #sschat weekly chat
   - [ ] Both

16. Please provide an example of something that you learned from #sschat that you applied in your classroom, school setting or role as an educator.

17. Have you made changes to your practice as a result of #sschat. If yes, please describe briefly.

   - [ ]
18. Have you collaborated with any other participants of #sschat? If yes, please provide an example of how you have collaborated.

19. Briefly describe how you think #sschat has been beneficial to you professionally.

20. Would you be willing to participate in an interview about your experiences in #sschat? The interview would be conducted by phone, skype, google hangout, or using an online conferencing tool (your preference). I value your time and will schedule the interview at your convenience. It should take approximately 30-60 minutes. Please indicate your name and email address in the box below if you are willing to be interviewed or are interested in learning more about my study.

Online survey can be accessed at http://tinyurl.com/survey-sschat
### APPENDIX B

<table>
<thead>
<tr>
<th>Hashtag</th>
<th>Topic</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>#engsschat</td>
<td>Implementing Genius Hour in the ELA/SS Classroom</td>
<td>09/28/2015</td>
</tr>
<tr>
<td>Q1: Describe your current knowledge of and experiences with #geniushour. #engsschat</td>
<td></td>
<td></td>
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<tr>
<td>Q2: How would you like to use #geniushour in your classroom? #engsschat</td>
<td></td>
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<tr>
<td>Q3: What brainstorming techniques could use to spark #geniushour ideas in your classroom? #engsschat</td>
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<tr>
<td>Q4: How could you structure #geniushour to fit your students and classroom? #engsschat</td>
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<tr>
<td>Q5: How could you create an authentic audience for your students to share their final products? #engsschat</td>
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<tr>
<td>Q6: Share your successes and/or concerns in regards to #geniushour. #engsschat</td>
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<td></td>
</tr>
<tr>
<td>Q7: Share any last tips or resources you may have for #geniushour. #engsschat</td>
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<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>#sschat</th>
<th>Controversial Issues</th>
<th>Date</th>
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<tbody>
<tr>
<td>Q1: What controversial topics do you teach in your classroom? Why do you choose those topics?</td>
<td></td>
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<tr>
<td>Q2: What position do you take with controversial issues? Or do you?</td>
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<tr>
<td>Q3: What methods do you use with your students to investigate, write, discuss or debate about these topics?</td>
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<tr>
<td>Q4: How do you create context in history when approaching a controversial issue?</td>
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<tr>
<td>Q5: How do you keep emotion to a minimum and good arguments with evidence to a maximum?</td>
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<tr>
<td>Q6: What resources do you use to help students research, prepare, investigate and write about the issues?</td>
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</tr>
<tr>
<td><a href="https://Storify/mseideman/controversial-issues">https://Storify/mseideman/controversial-issues</a></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>#sschat</th>
<th>Smartphones in the Classroom</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1: Are smartphones allowed in your classes? Why or why not? #sschat</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q2: How does knowing students have all human knowledge ever discovered instantly accessible in their pockets transform education? #sschat</td>
<td></td>
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<tr>
<td>Q3: This @PostSchools piece suggests smartphones degrade discourse, hurt students. Agree/disagree? Why? #sschat</td>
<td></td>
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<tr>
<td>Q4: How can teachers use smartphones as an <em>effective</em> educational tool? Share some</td>
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</tbody>
</table>
Q5: Sometimes digital technology is referred to as the "great equalizer" in education. How can tech be used to reduce gaps? #sschat

Q6: What are some ways you use smartphones & other tech to formatively assess students? #sschat

Q7: If you're using smartphones in class for legitimate educational purposes, what about the students w/o smartphones? #sschat

Q8: Students as digital natives, you agree? Are they really? Why or why not? #sschat

https://Storify.com/mseideman/smartphones-in-the-classroom#publicize

#sschat  Changing Attitudes Toward One-Time Heroes  10/12/2015

Q1: It’s Columbus Day; How do you discuss Columbus and his role in your classrooms today?
Q2: Should we rename Columbus Day?
Q3: There is a move to add a woman to the ten dollar bill. Many argue that Jackson should go instead? Is this a classroom topic for you?
Q4: 5 of first 7 presidents, 10 of first fifteen were slaveholders. How do you deal with this issue as it relates to Presidents like Jefferson and Jackson?
Q5: Army bases are named for Confederate generals. Should they be changed? How does Columbus issue relate to lowering Confed flag and Confed statues? Same issue? Q5 follow up: Has the Confed flag issue been discussed w Ss this year?
Q6: In the same vein, US army bases are named for Confed generals. Rename them too? Weren’t they traitors?
Q6: Is the Geography textbook that called African slaves “workers” a topic of discussion in your classroom?

https://Storify.com/CHitch94/10-12-2015

#worldgeochat  Vocabulary Strategies  09/22/2015

Q1: Why is geography specific vocabulary important for students to learn?
Q2: How do you motivate students to ‘want to learn’ geographic vocabulary?
Q3: What are some MUST know vocabulary for students to think geographically?
Q4: How do you get students to utilize geography vocabulary in their writing and in discussions into their life? Why is it important to do this?
Q5: How do you assess vocabulary knowledge/usage in a geography classroom?
Q6: Share a vocabulary strategy that has worked in your geography classroom.

https://Storify.com/cheffernan75/worldgeochat-5602074cddec25e6050be0c6?utm_content=Storify-pingback&awesm=sfy.co_s0wt4&utm_source=t.co&utm_medium=sfy.co-Twitter&utm_campaign=
<table>
<thead>
<tr>
<th>#worldgeochat</th>
<th>Geographic Questioning</th>
<th>09/29/2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1: What does geographic questioning mean to you? Why is it important?</td>
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<tr>
<td>Q2: What techniques/activities do you use to build Ss capacity to develop geographic questioning skills?</td>
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<td>Q3: How do you use geographic questions in your classroom?</td>
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<td>Q4: What geographic questions do students struggle with? What geographic questions do you struggle with?</td>
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<td>Q5: What are your favorite geographic questions to ask students? Why?</td>
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<tr>
<th>#worldgeochat</th>
<th>Differentiation in the Geography Classroom</th>
<th>10/06/2015</th>
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<tbody>
<tr>
<td>Q1: How do you define differentiation in a geography classroom?</td>
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<tr>
<td>Q2: How did you learn to differentiate your instruction? What resources did you learn from?</td>
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<td>Q3: What challenges have you encountered when differentiating instruction?</td>
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<td>Q4: How do you differentiate your assessments? (Pre/formative/ &amp; Summative)</td>
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<td>Q5: What are the best tools or resources you have to help differentiate a lesson?</td>
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<tr>
<td>Q6: What examples of lessons/units that you have differentiated?</td>
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<td>Q7: What is a simple thing someone could do tomorrow to differentiate instruction?</td>
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<tr>
<th>#hsgovchat</th>
<th>Teaching the 2016 Primaries and Caucuses</th>
<th>09/20/2015</th>
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</thead>
<tbody>
<tr>
<td>Q1: For our students w little prior political knowledge, how are we bringing em up to speed on Dem/GOP races?</td>
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<tr>
<td>Q2: What do students need to understand about GOP/Dem nomination processes? How are you helping them achieve that understanding?</td>
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<td>Q3: For those of who don’t live in Iowa, New Hampshire, South Carolina… How do we teach our students about their significance?</td>
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<td>Q4: How do we teach our students about the often complicated process of accumulating delegates to win unofficial nomination?</td>
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<td>Q5: What do we need help with teaching our students about the nomination process?</td>
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Let’s help each other out.
