THE IMPACT OF A TEACHER STUDY GROUP
ON TEACHER BELIEFS ABOUT TEACHING AND SOCIAL MEDIA

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DEDICATION

This dissertation is dedicated to my son, Jonathan, who inspired me to complete my study and achieve my dream. May all your dreams come true.
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ABSTRACT

Professional development approaches to teacher learning have shifted from short-term workshops to teacher communities of professional practice, which extend over a period of time and focus on the professional knowledge teachers need to use in their own context. A promising approach to teacher learning communities is a teacher study group. A teacher study group provided a venue to engage in collaborative discussion about teachers’ beliefs about teaching and the use of social media as a teaching tool. Therefore, the purpose of this study was to examine the impact of a teacher study group on participants’ beliefs about teaching and social media use for instruction. This study utilized narrative inquiry within a case study. Six teachers who taught at a community college participated in a teacher study group focused on collaborative dialog and reflection about teaching and on the use of social media in their courses. The results of this study revealed the impact of the teacher study group as a supportive community for teachers to share their teaching experiences and reaffirm their teacher beliefs and practices. Teachers’ exchange of viewpoints contributed to shared meanings and understandings about teaching pedagogy, particularly in the area of place- and culture-based education. Findings of this study suggest participants needed to explore their beliefs about teaching in-depth and therefore the integration of social media into teaching and learning was of less importance.
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The Data Analysis Spiral
CHAPTER 1
INTRODUCTION

Professional development approaches continue to evolve as new models of teacher learning emerge. The emerging model for improving teacher learning has moved away from one-day workshops and instead adopted new professional development approaches that are grounded in the idea of learning to teach as a lifelong undertaking and planned around a continuum of teacher learning (Borko, Jacobs, & Koellner, 2010). Stein, Smith, and Silver (1999) identified features of this new paradigm for teacher learning, which seeks to transform teachers’ beliefs, knowledge and habits of practice over an extended period of time. These features include various contexts for teacher development such as teacher assistance focused on teachers’ practice and the development of teacher communities of professional practice, which encourages collegiality among teachers and the development of teachers’ capacities to explain, challenge, and critique the work of peers (Stein et al., 1999).

Borko et al. (2010) placed a renewed emphasis on the new paradigm and stated that for teacher professional development to be effective, the content or context and design of such efforts should be situated in practice and focused on students’ learning. It should also engage teachers in inquiry-based learning activities, and building a learning community for professional development. As Borko et al. (2010) summarized, contemporary approaches to teacher professional development should focus on “providing a long-term, inquiry or learner-centered structure that supports teachers as they collaboratively develop the professional knowledge they need to use in their own context” (p. 548).
According to Wenger, McDermott, and Snyder (2002), communities of practice support collaborative inquiry and share three structural elements inherent to all communities of practice: (a) domain, which is a shared sense of identity, (b) community, which make up the people who care about their domain, and (c) practice, which involves the specific knowledge a community develops, shares and maintains. Wenger et al. (2002) define communities of practice as “groups of people who share a concern, a set of problems, or a passion about a topic and who deepen their knowledge and expertise in this area by interacting on an ongoing basis” (p. 4).

One promising form of a professional learning community is a teacher study group (TSG). A TSG is a teacher inquiry group in which teachers meet regularly for collaborative inquiry about their practical experiences to achieve their collective goal of group learning in a systematic and interactive way (Lambson, 2010; Wenger et al., 2002). Teacher study groups are sustained opportunities for teachers to work in a collaborative environment on issues and challenges that directly influence their teaching (Clair, 1998). Murphy (1992) identified three main purposes for teacher study groups in general: (a) facilitate implementation of curricular and instructional innovations, (b) plan school improvements, and (c) guide educators in studying research-based practices. This inquiry-based teacher learning model allows teachers to choose the topics of study that is relevant to their teaching practices. Thus, teacher study groups can be diverse in their format and content as the members of the group drive the design and content themselves (Clair, 1998).
Statement of the Problem

An approach to providing teachers with professional development to discuss beliefs about teaching and the use of social media is a teacher study group. This approach provides a venue to support collaborative discussion among colleagues about teaching and whether social media use facilitates learning in their classrooms. According to Zhao and Frank (2003) teachers’ reasons for using technology in the classroom usually relate to their beliefs that technology can address important teaching and learning needs.

Kagan (1992) and Pajares (1992) have indicated that teacher beliefs have more influence on teacher practice than teacher knowledge. According to Clark and Peterson (1986), the professional decisions teachers make on a daily basis are based on their beliefs. Teacher beliefs play a critical role in general instructional practices (Pajares, 1992) as well as specific technology integration practices (Ryba & Brown, 2000).

Belief systems have been represented as a complex network of attitudes and values (Rokeach, 1968). Beliefs have a tendency to influence practice (Pajares, 1992), especially beliefs attributed to value (Ertmer & Ottenbreit-Leftwich, 2010). Value beliefs (or beliefs about the value of something) encompass the perceived importance of particular goals and choices (Anderson & Maninger, 2007).

In other words, teachers’ value beliefs with regards to technology use are based on whether or not they think technology can help them achieve the instructional goals they perceive to be most important (Watson, 2006). Zhao and Frank (2003) reported that change in teacher beliefs regarding the value of computer technologies was more likely to occur when teachers were socialize with their peers to think differently about technology use. This suggests the need to provide teachers with professional development situated in
the context of an inquiry-based learning community to examine their beliefs about new technologies and pedagogies to facilitate student learning.

**Purpose of the Study**

The purpose of this study was to examine the impact of a teacher study group on participants’ beliefs about teaching and social media use for instruction. Research findings have noted that teacher beliefs about the usefulness of integrating technology influence whether they use technology for instruction (Ertmer & Ottenbreit-Leftwich, 2010). This study examined teachers’ study group discussions, teacher experiences, teachers’ written reflections, and teacher beliefs about teaching and social media. According to Day, Sammons, Stobart, Kington, and Gu (2007), the way communities use talk as a means of probing meanings is crucial to their growth. The exploration of personal and professional life histories can provide insights to teachers and track the origins of their beliefs, values and perspectives, which influence and inform their current theories and practices of being a teacher (Day et al., 2007). For the purposes of this study, participants discussed their personal and professional experiences in relation to their beliefs to uncover meanings to inform their teaching practices.

Teachers’ beliefs about the use of social media for instructional purposes were also discussed among colleagues. According to Joosten (2012) social media is a term that is broadly used to describe any number of technological systems related to collaboration and community. Kaplan and Haenlein (2010) described social media as technologies that allow for both the creation and exchange of user generated content. For the purposes of this study, social media has been defined as “a wide array of web-based applications which allow users to collaboratively build content and communicate with others across
the world” (Butler, 2012, p. 139). This study specifically discussed five social networking sites (e.g., Facebook, Twitter, Blog, ‘Imiloa, and Instagram) for teaching and learning. These sites were chosen for this study because each represents a different application of networking communication and collaboration.

Although interest on social media use in higher education has been increasing, I found no existing research on teacher study groups as a form of professional development to understand the relationship between teacher beliefs about teaching and the use of social media for teaching and learning. Additionally, most research about teacher study groups has been with K-12 teachers and therefore this study contributes to the growing body of research on the impact of teacher study groups in higher education, particularly with community college teachers.

As an educator who has conducted professional development sessions with faculty, I was interested in understanding teacher study groups as a form of professional development. I was also interested in understanding how teacher study groups may be a venue for teacher input on curriculum design and development, so that educational institutions can make informed decisions about resources and professional development related to classroom practice.

In addition to understanding teacher study groups as a form of professional development for teachers, I was interested in learning more about what community college teachers think about the use of new technologies, specifically social media, for teaching and learning. As social media becomes more popular in the everyday lives of students, I was interested in exploring teachers’ beliefs about the use of social media to facilitate learning in their classroom, and understanding how and in what ways
community college teachers may use these new technologies to connect with their students to facilitate student learning.

The Center for Research on Education, Diversity, and Excellence (CREDE) Standards for Effective Teaching and Learning is a framework that may serve as a guide to assist faculty in the use of social media for teaching and learning. The CREDE Standards were designed to help teachers maximize classroom interactions in ways that promote learning of concepts and higher-level skills (Tharp, Estrada, Dalton, & Yamauchi, 2000). The CREDE Standards are derived from over 30 years of research and grounded in a sociocultural perspective of teaching and learning first proposed by Tharp and Gallimore (1988) and later more fully elaborated by Tharp et al. (2000) in Teaching Transformed: Achieving Excellence, Fairness, Inclusion, and Harmony. The Standards derive from Vygotsky’s (1978) sociocultural theory that learning occurs through social interaction with others within specific cultural contexts and communities. As Yamauchi, Wyatt, and Carroll (2005) explained:

The Five Standards are helpful to educators because they translate sociocultural theory into pedagogical practice. For example, they emphasize that teachers need to organize activities so that they have opportunities to discuss concepts with students and provide assistance for students as they engage in problem solving, analysis, and other higher level thinking. (p. 227)

Theoretical Framework

One of the distinguishing features of sociocultural theory is the view that teaching and learning are social, not individual, activities. From this perspective, people construct meaning through their interactions with and experiences in their social environments
A sociocultural model for professional development therefore involves social interaction that is mediated by tools such as language to facilitate the co-construction of knowledge. Thus a one-shot workshop provided by an expert will not be as effective as a collaborative effort to solve a common problem.

Therefore, language and discourse can play a critical role as part of the professional development process. A fundamental premise of sociocultural theory is that language is an important tool, which helps mediate interaction with others. In this view, thinking takes place through the medium of language, and language helps frame problems in new and important ways. Discourse can be a central part of the professional development process, as long as it helps to frame a problem or re-conceptualize it in a more useful way.

Another premise of sociocultural theory is that teaching and learning must be contextualized, or situated, in meaningful activities connected to everyday life (Forman, Minick, & Stone, 1993). This means that teaching and learning activities and joint problem-solving tasks should focus on authentic issues and problems encountered in participants’ daily practice. Both the problems addressed as well as the teaching and learning processes in these contexts are certain to be more challenging than those typically encountered in more controlled situations, but are more meaningful to participants.

Learning about teaching within a social constructivist framework is more of a social process, which involves the formulation of knowledge through sharing, learning and understandings with others. Collaborative work in collegial groups enables individuals to examine their thinking about teaching with others. This interaction also
emphasizes the important role of colleagues in professional development to support reflection on and development of knowledge and skills required for effective teaching (Amundsen, et al., 2005).

If one embraces the idea that teacher learning is social, situated in physical and social contexts, and distributed across people, tools, and activities, then a TSG has the potential to help teachers explore and examine their beliefs, personal knowledge and professional practice among colleagues. This approach to teacher professional development provides teachers with multiple opportunities to discuss beliefs about teaching and social media for instructional purposes. Therefore, the purpose of this study was to examine whether teacher study group participation influenced community college teachers’ beliefs about teaching and social media as a teaching tool. Specifically, this study explored the following research questions:

1. What impact did the teacher study group have on six community college instructors’ beliefs about teaching and learning?
2. What impact did the teacher study group have on six community college instructors’ beliefs of the use of social media as a teaching tool?
3. To what extent did the six community college instructors’ beliefs about the CREDE standards influence their beliefs about teaching and the use of social media in their courses?
CHAPTER 2

LITERATURE REVIEW

Advances in information technology, along with the changes in our society, are creating new paradigms for education (Franklin & Van Harmelen, 2007). Social media, or what is collectively known as Web 2.0 technologies, is reshaping the way college students communicate generally and within their college community. But more than utilizing a new way of communication, college students are using social media to connect, to create and consume content, to use and generate applications, and thus to experience college in both real and virtual or online communities (Martinez-Aleman & Wartman, 2008). Contextually rooted discussions of the potential of Web 2.0 in teaching are rare (Brown, 2012). More common are generalized analysis of the benefits of Web 2.0 for the higher education sector. The integration of Web 2.0 into teaching may be affected relatively more, however, by perceptions and beliefs of its potential among teachers and educators charged with enhancing teaching practice (Brown, 2012). This literature review includes: 1) social media in education, 2) teacher beliefs about teaching and learning 3) teacher study groups, and 4) CREDE Standards for Effective Teaching and Learning.

Social Media in Education

Social media technology (SMT) has become a growing phenomenon, with many and varied definitions, in public and academic use. Social media generally refers to media used to enable social interaction. The term often refers to web-based and mobile applications that allow individuals and organizations to create, engage, and share new user-generated or existing content, in digital environments through multi-way
communication (Davis III, Deil-Amen, Rios-Aguilar, & González Canché, 2012). boyd and Ellison (2007) define social network sites as web-based services that allow individuals to construct profiles, display user connections, and search within a list of connections. Over the last ten years, a proliferation of differentiated services have emerged such as micro-blogging sites like Twitter, location-based services like Foursquare, and consumer review platforms including Yelp have all worked collaboratively to provide a totally new and engaged media experience, which has now become accessible through mobile devices (Reuben, 2008). The entire range of social media applications noted above share the innate ability to enable social behavior through dialogue – multiple-way discussions providing opportunity to discover and share new information (Solis, 2008).

Despite the widespread use of SMT, little is known about the benefits of its use in postsecondary contexts and for specific purposes (e.g. marketing, recruitment, learning, and student engagement). Nearly all of what is widely known about types of SMT use in higher education has been documented in literature describing four-year colleges and universities, where it tends to be utilized as à la carte communication tools for stand-alone departments and individual faculty rather than being part of a larger, more systemic institutional commitment to the use of SMT (Harris, 2008). It is critical to begin to examine if and how higher education institutions are incorporating the use of SMT. In particular, to what extent are they using it as a teaching tool to connect with students in and out of the classroom and improve student learning (Davis III, et al., 2012).
Social Media in Community Colleges

More recently, community colleges have been recognized as leaders in the use of technology. The Digital Community College Survey of 2011 reports on how community colleges institutions are using technology to improve services to students, faculty and staff. The Center for Digital Education identified the top five digital community college trends from 2010: (1) mobile access; (2) technical support; (3) video, social networking, and webcasts; (4) career guidance; and (5) distance and blended courses. Two years before in 2009, the Community College Survey of Student Engagement (CCSSE), which included more than 400,000 students from 663 institutions, described the potential of online connections to increase student engagement. One of the most important findings in the report is that student engagement increases when social networking is used for academically purposeful activities. Another important role community colleges play regarding social media is related to the training of students on social media skills. The Community College Times (2012) has recently reported that some community colleges are now offering social media certificate programs in an effort to adjust to changing workforce needs and to provide students with skills they will need to obtain jobs. Social media is broadly used across colleges and universities.

Teacher Beliefs about Teaching and Learning

A great deal of empirical evidence has established the significance of beliefs for understanding teacher behavior (Kane, Sandretto & Health, 2002; Pajares, 1992). According to Pajares (1992), “Few would argue that the beliefs teachers hold influence their perceptions and judgments, which in turn, affect their behavior in the classroom …” (p. 307). Kagan (1992) cited significant evidence supporting this relationship: “Empirical
studies have yielded quite consistent findings: A teacher’s beliefs tend to be associated with a congruent style of teaching that is often evident across different classes and grade levels” (p. 66).

In general, beliefs are created through a process of enculturation and social construction; they can be formed by chance, an intense experience, or a succession of events (Pajares, 1992). Although little has been written about how teachers’ beliefs about technology are formed, there is little reason to think they follow a path different from that described for other beliefs. Both inexperienced and seasoned teachers are likely to respond to new instructional situations by relying on previous beliefs and experiences (Kagan, 1992). Whereas some teachers may think of technology as just another tool they can use to facilitate student learning, others may think of it as one more thing to do. These early perceptions and classifications, result in vastly different beliefs regarding if, when, and how to use the tool.

Previous evidence suggests that, if technology is treated as an instructional innovation, beliefs will play a significant role in whether or how it is adopted and implemented (Czerniak & Lumpe, 1996; Carpenter, Fennema, Peterson, Chiang & Loef, 1989). Based on the reported relationship between teachers’ beliefs and their implementation of reform initiatives, Niederhauser and Stoddart (2001) suggested that teachers use technology in ways that are consistent with their personal beliefs about curriculum and instructional practice. That is if technology is presented as a tool for enacting student-centered curricula, teachers with teacher-centered beliefs are less likely to use the tool as advocated. Rather, they are more likely to use technology to support the kinds of traditional activities with which they are comfortable. According to Zhao and
Cziko (2001), the further a new practice is from existing practice, the less likely it will be implemented successfully. Given this, it may be worthwhile to consider introducing technology as a tool that is already valued (e.g. communication with parents, locating relevant instructional resources). Then once the tool is valued, the emphasis can switch to its potential for accomplishing additional or new tasks, including those that are supported by broader, or different, beliefs (Ertmer, 2001). For example, once teachers become comfortable using email or blogs to communicate with parents, they may be more willing to consider allowing students to use email, blogs or other social networking tools to communicate with peers across the state or even across the world.

Although beliefs are not readily changed, this does not mean that they never change (Nespor, 1987; Pajares, 1992). According to Nespor (1987), beliefs change, not through argument or reason, but rather through a conversion process. Posner, Strike, Hewson, and Gertzog (1982) noted that, in order for beliefs to change, individuals must be dissatisfied with their existing beliefs. This is most likely to happen when either existing beliefs are challenged or new beliefs cannot be assimilated into existing ideas. Kagan (1992) noted that if a teacher education or professional development program is to be successful at promoting belief change among teachers, “it must require them to make their preexisting personal beliefs explicit; it must challenge the adequacy of those beliefs; and it must give novices extended opportunities to examine, elaborate, and integrate new information into their existing belief systems” (p.77).
Teacher Study Groups

Teacher study groups are grounded in sociocultural theory through conversational discourse, negotiation and collaboration among colleagues. The interaction within the group also emphasizes the important role of colleagues in professional development to support reflection on and development of, knowledge and skills required for effective teaching. Conversation about teaching and learning is contextualized, or situated in meaningful activities connected to teacher practices and everyday life.

In practice, teachers spend much of their time alone at the front of a room, rarely joining others in sustained, reflective inquiry into teaching and learning (Darling-Hammond, Wei, Andree, Richardson, & Orphanos, 2009). However, collaborative teacher study groups, which are structures intended to “tap local expertise and the collective wisdom that thoughtful teachers can generate by working together” (Feiman-Nemser, 2001, p. 1042) may offer a place where reflective shared inquiry can occur. The groups are sometimes independent entities that are organized and run by teachers for the purpose of sustaining their own learning. In other situations, administrators, university professors, and various outside persons may instigate and facilitate these groups. With or without external leadership, the most successful study groups contain collaborative elements and goals are shared as groups are organized around the aim of improving the local knowledge that is most important to their particular members.

In 2009, researchers conducting a meta-analysis of large-scale teacher professional development surveys, research studies, and evaluation reports, found clear research support for significant shortcomings inherent in “the occasional, one-shot workshops that many school systems tend to provide, which generations of teachers have
derided” (Darling-Hammond et al., 2009, p. 9). A collaborative teacher study group offers an alternative to the common professional development workshop model. Its unscripted nature stands in contrast to the typical one-way delivery of tips, techniques, or ideas that may or may not have any effect on teaching practices or student achievement.

**CREDE Standards for Effective Teaching and Learning**

Roland Tharp and his colleagues (Tharp et al., 2000) have identified five teaching standards, the Standards for Effective Pedagogy, that are important for improving learning outcomes for all students, especially those at risk of academic failure due to cultural, linguistic, or economic factors. The CREDE Standards is a framework that can serve as a guide for teachers to consider developing new capacities of sociocultural teaching and learning practices. This framework may also serve as a guide and encourage reflection on practice, individually or with peers.

The first five standards are (a) Joint Productive Activity, where teachers and students work together to facilitate learning through collaboration and dialogue on a common or relevant educational product and have opportunities to discuss their work; (b) Developing Language and Literacy across the Curriculum, where competence in the language and literacy within the subject area is developed; (c) Teaching in Context, where making meaning occurs by connecting the student’s prior knowledge, home, and life experiences to contextualized instruction; (d) Teaching Complex Thinking, where the process of complex thinking is modeled and taught through challenging activities; and (e) Instructional Conversation, where conversation is planned and goal directed whereby teachers and students use a purposeful, sustained dialogue to build shared understanding.

In addition to the five CREDE Standards, there are two standards unique to indigenous
communities: (a) Modeling and Demonstration, where students are given the opportunity to learn through observation, and (b) Student Directed Activity, where student autonomy is encouraged throughout the learning process (Tharp, Dalton, & Yamauchi, 1994). These last two standards are based on indigenous views of development and child socialization practices.

Theoretical Foundations

The CREDE Standards is grounded in a sociocultural perspective of teaching and learning first proposed by Tharp and Gallimore (1988) and later more fully elaborated by Tharp et al. (2000) in Teaching Transformed: Achieving Excellence, Fairness, Inclusion, and Harmony. The Standards derive from Vygotsky’s (1978) sociocultural theory that learning occurs through social interaction with others within specific cultural contexts and communities. The Standards highlight the importance of the cultural context of learning.

For Vygotsky (1978), all learning is situated in a particular sociocultural context that determines what, how, and from whom one learns. All students come to school with a unique history of knowledge, understandings, goals, expectations, and attitudes that are shaped by interactions within their cultural communities.

Those who have difficulty in school may have different goals and expectations than that of the school personnel. For example, students who come from a more collective home culture, where the goals of the group are emphasized over that of the individual, may have difficulty adjusting to a more competitive and individualistic school environment. (Yamauchi et al, 2005, p. 228)
According to Doherty, Hillberg, Pinal, and Tharp (2003), the Five Standards are based on sociocultural tenets (Tharp & Gallimore, 1988) and state learning occurs best in this context when “(a) teachers and students work together on a common task or goal and have opportunities to engage in dialogue during collaboration, (b) instructional activities are meaningfully connected to students’ prior experience and knowledge; and (c) instruction occurs within the learner’s zone of proximal development (ZPD), defined by Vygotsky (1978) as ‘… the difference between the actual developmental level as determined by independent problem solving and the level of potential development as determined by independent problem solving under adult guidance or in collaboration with more capable peers’. From this perspective, teaching is assisting student performance with the goal of increasing that which students can do unassisted by the teacher” (p.4).

**History and Research**

The CREDE Standards are the result of over three decades of research across cultural, linguistic, and economic contexts. This research began with the Kamehameha Elementary Education Program (KEEP), a program for at-risk K-3 Native Hawaiian students. Roland Tharp was the principal investigator and chief executive officer of the KEEP program charged with finding answers to why Hawaiian and part-Hawaiian students were reading below national norms, and what could be done to improve their learning achievement. “After reorganizing KEEP classrooms into peer-oriented small group activity settings, students in the program made significant improvements in reading achievement (Tharp, 1982) and higher rates of on-task behavior, and peer-directed cooperative behavior toward school-related goals” (Doherty et al., 2003, p.2). “The
KEEP research is significant because it illustrates the different ways culture influences the experiences of students in classrooms” (Yamauchi, 2005, p. 108).

**CREDE Standards and Professional Development**

Quality teaching is key to student success and teachers need assistance to deliver quality (Darling-Hammond, 1997). New paradigms of professional development (Hawley & Valli, 1999; Putnam & Borko, 2000), while continuing to aim at developing new capacities in individual teachers, also integrate notions of learning as more social, and consider adult learning and development strategies (Sprinthall, Reiman, & Theis-Sprinthall, 1996). These views consider teachers’ characteristics and experiences (Richardson & Placier, 2001), contexts, approaches, and the purposes of professional development Putnam and Borko (2000), and the interrelatedness of institutional and teacher change (Elmore, 2002).
CHAPTER 3
METHODOLOGY

This study examined the influence of a teacher study group on community college teachers’ beliefs about teaching and social media as a teaching tool. I chose a qualitative research methodology as my overall approach to examine and explore the meanings and connections teachers make through reflection and dialogue with their colleagues. This study also explored teachers’ beliefs about the CREDE Standards as a framework for teaching and as a guide for integrating social media in their courses.

Research Design

A narrative case study design was used to conduct this study. Creswell (2013) describes case study as research which “involves the study of a case within a real-life, contemporary context or setting” (p. 97). Furthermore, he views case study research as “a type of design in qualitative research that may be an object of study, as well as a product of the inquiry” (p. 97).

Narrative refers to any text or discourse used within the context of a mode of inquiry in qualitative research (Chase, 2005) with a specific focus on the stories told by individuals (Polkinghorne, 1995). Narratives or stories of lived experiences are co-constructed and negotiated between the participants and researcher. Narrative inquiry is an umbrella term that captures personal and human dimensions of experience over time, and takes into account the relationship between individual experience and cultural context (Clandinin & Connelly, 2000). As a qualitative research design, “narrative is understood as a spoken or written text giving an account of an event/action or series of events/actions, chronologically connected” (Czarniawska, 2004, p. 17).
For the purposes of this research, the case being studied is a teacher study group in which six teachers engaged in a process of inquiry into their beliefs about teaching and social media in education. It was bound by eight sessions over 12 weeks at a workshop studio located at a community college campus on O‘ahu. I chose to use narrative inquiry as a research design because it enabled me to collect stories from participants’ experiences and situate these stories within participants’ personal (home, job) experiences, their culture, and their historical contexts. Understanding participants’ teaching experiences also reveals their beliefs about their teaching approaches and practices. My approach draws upon the work of Clandinin and Connelly (2000) who explore the way narrative deepens our understanding of the educational experience.

**Theoretical Framework**

I chose to use sociocultural theory as my framework for the design of the teacher study group because it situates the learner within a social context and allows for a variety of perspectives to be shared among participants. This interaction provided opportunities for participants to learn from each other through collaborative dialog on ideas, interests, issues and beliefs about teaching. As a group, participants engage in conversation and activities on teaching and learning topics, and share their thoughts to formulate meanings and connections between their beliefs about teaching and using social media as a teaching tool. The design also provided opportunities for participants to reflect upon and share their classroom experiences, which contributed to building understanding together rather than in isolation from their colleagues. This process of sharing and receiving feedback also provided opportunities to build relationships in a supportive learning environment.
A fundamental premise of sociocultural theory is that language is an important tool, which helps mediate interaction among individuals. From this view, thinking takes place through the medium of language, and language helps frame problems in new and important ways. From this perspective, language and discourse can be a critical and important part of the professional development process, which helps to frame a problem or re-conceptualize ideas and concepts. Furthermore, collaborative discussion in collegial groups enables individuals to examine their thinking about teaching among colleagues. This interaction emphasizes the important role of colleagues in professional development to support each other through reflection and dialogue on and the development of knowledge and skills for effective teaching (Amundsen et al., 2005).

**Research Setting**

This study was conducted at an urban community college campus that provides liberal arts and vocational academic programs. The college is part of a 10-campus public educational system, which includes 3 universities, 7 community colleges and community-based learning centers across the state. The college enrollment of 8,376 students includes 62% part-time and 38% full-time students. The diverse student population includes 57% female and 43% male students. The student ethnicity at the college is 49% Asian, 19% Native Hawaiian/Pacific Islander, 13% Caucasian, 1% Hispanic, 1% African American, 14% Mixed Race and 3% not indicated.

Instructional faculty at the college generally teach five courses a semester and in addition to their primary responsibilities are expected to participate in service activities (e.g., institutional/administrative, professional organizations, public service/speaking) and professional and self-development. Professional development activities are often
included as part of a faculty member’s contract renewal or tenure/promotion application to demonstrate understanding of students’ educational needs and to maintain expertise in discipline content. On campus professional development activities include: (a) orientations (e.g., new faculty orientation and department orientation meetings), (b) leadership development (e.g., Wo Learning Champions and Emerging Leaders Program), (c) faculty/staff development of personal and professional practice (C4ward: Collaborative Circles for Creative Change), and instructional support workshops on distance learning, including course development for online/hybrid courses and technologies that support distance learning delivery (e.g., Blackboard Collaborate and Adobe Connect web conferencing systems). Workshops are offered at multiple times on campus to accommodate faculty schedules. Additionally, faculty may choose to attend conferences or seminars within the state or out-of-state.

The college’s Vice Chancellor of Academic Affairs agreed to offer the teacher study group sessions to faculty as a recognized professional development activity. Faculty participants were then able to document their participation as professional development for contract renewal or tenure/promotion purposes. Eight study group sessions took place over a 12-week academic semester at an on-campus studio for workshops and seminars. As the researcher, I facilitated eight 2-hour sessions on the following topics:

Session 1: Welcome & Introduction, Purpose & Overview of Study, Survey

Session 2: Educator’s Toolkit: Introduction to Social Media and the Use of Social Media as a Teaching Tool. Faculty guest presenters shared their work and experiences. Participants selected topics of interest for future sessions.
Session 3: CREDE Standards: Introduction to CREDE Standards by Guest Presenter Dr. Lois Yamauchi, College of Education, University of Hawai‘i at Mānoa

Session 4: CREDE & Social Media: Is there a connection between CREDE and the use of social media for teaching and learning?

Session 5: Reflect & Share
Participants share their experiences and beliefs on their mock-up assignment and discuss the use of CREDE Standards as a guide to design and integrate social media in their course.

Session 6: Culture-based Education (topic selected by participants)

Session 7: Place-based Education (topic selected by participants)

Session 8: Participants Share Experiences in Teacher Study Group
Complete Survey

These sessions provided a setting or context for professional development, which involved teachers as learners in an environment focused on collaborative dialogue and reflection. Participants explored components of social media and the CREDE Standards of Effective Teaching and Learning, then chose topics on culture-based and place-based education. The group discussions served as tools for learning about teaching, understanding other educators’ views, and learning together as a community of practitioners. Throughout the teacher study group sessions, teachers also shared their classroom experiences with other participants to gain insight and understand their own and other participants’ personal practical knowledge.

**Participants**

A purposeful sampling strategy was used for the selection of participants in order to develop an in-depth exploration of teacher beliefs, experiences, and perspectives within a teacher study group. Purposeful sampling is based upon the assumption that the researcher must select a sample from which the most can be learned (Merriam, 1998).
The type of purposeful sampling strategy I chose to use was maximal variation sampling, which enabled me to explore diverse perspectives and experiences.

Six community college teachers comprised the sample of my study. All six teachers are faculty members employed at the community college where the study was conducted. They were invited to participate in the study because they represent various academic programs, a range of teaching experience, and a range of technology integration for teaching and learning in their classes as shown in Table 1. In addition, four of the participants were tenured faculty, one teacher was on a tenure track, and one teacher was a full-time lecturer. The teacher criteria of academic discipline, number of years of teaching, and the use of technology in their courses were important criteria for the study because they ensured the sharing of multiple perspectives and diverse views on various teaching and learning topics discussed in the teacher study group.

A small sample size of six participants allowed me as a researcher to explore in-depth detail about teacher experiences and perspectives. All of the participants, including myself as the researcher were of Native Hawaiian ethnicity. The findings of this study suggest that participants’ ethnicity may have had an influence on their beliefs and values about teaching as the participants discussed their personal cultural experiences and knowledge in relation to place- and culture-based education. All of the participants shared the belief that the TSG provided a venue to discuss their cultural identity and these discussions reinforced their own cultural knowledge and it’s application to teaching.
<table>
<thead>
<tr>
<th>Participant</th>
<th>Academic Discipline</th>
<th>Community College Courses Taught</th>
<th>Number of Years Teaching</th>
<th>Experience Integrating Technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kanani</td>
<td>Social Sciences</td>
<td>- Survey of Human Development</td>
<td>16 years</td>
<td>A Small Extent</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Intro to Multicultural Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Educational Research</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>- Family Professional Partnership</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Introduction to Inclusive Education</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>- Classroom Management/Instruction</td>
<td></td>
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<td></td>
<td></td>
<td>- Educational Psychology</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>- Foundations of Education</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>- Capstone Seminar/Practicum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Koa</td>
<td>Art &amp; Humanities</td>
<td>- Introduction to Ceramics</td>
<td>27 years</td>
<td>A Moderate Extent</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Intermediate Wheel throwing</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Intermediate Hand building</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Introduction to Hawaiian Visual Art</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>- Introduction to 3D Design</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>- Art appreciation</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Introduction to Design</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Momi</td>
<td>Languages, Linguistics and Literature</td>
<td>- Pre-College Communication</td>
<td>14 years</td>
<td>A Great Extent</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Developmental Writing</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>- English Composition</td>
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<tr>
<td></td>
<td></td>
<td>- Advanced Composition</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>- Multiethnic literatures of Hawaii</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>- Creative Non-fiction</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Creative Writing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nalu</td>
<td>Art &amp; Humanities</td>
<td>- Introduction to Ceramics</td>
<td>14 years</td>
<td>A Small Extent</td>
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<tr>
<td></td>
<td></td>
<td>- Intermediate Hand-building</td>
<td></td>
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<tr>
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<td></td>
<td>- Introduction to Hawaiian Visual Art</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>- Introduction to 3D Design</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pono</td>
<td>Art &amp; Humanities</td>
<td>- Introduction to Photography</td>
<td>14 years</td>
<td>A Small Extent</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Intermediate Photography</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>- Introduction to Hawaiian Visual Art</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Independent Study</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Puna</td>
<td>Languages, Linguistics and Literature</td>
<td>- Elementary Hawaiian Language I</td>
<td>23 years</td>
<td>A Moderate Extent</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Elementary Hawaiian Language II</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Intermediate Hawaiian Language I</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>- Intermediate Hawaiian Language II</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>- Hawaiian Literature</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>- Hoe Wa’a: Hawaiian Canoe &amp; Voyaging</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Role of Researcher

I had two roles within this study, one as researcher and the other as the study group facilitator. The study group facilitator provided opportunities for me to gather information and support productive dialogue in a group setting. As a researcher, I was responsible for conducting the various research stages of the study, including addressing the ethical concerns of the participants. I met with each participant individually to go over the purpose of the study and their rights as a participant. I discussed what would be required of them as participants and mentioned that I received permission to offer the teacher group study sessions as a recognized professional development activity. I provided time for questions and upon agreement to participate in the study each participant signed a consent form. For ethical concerns and considerations, I complied with the University of Hawai‘i Human Studies Program requirements to ensure the safety, welfare, and rights of the participants were protected.

As a study group facilitator, I was personally interested in facilitating the teacher study group sessions because of my professional background, which has included the organization and delivery of professional development for community college faculty. From this perspective, I was interested in examining the strengths and weaknesses of a teacher study group as a form of professional development for educators. Presently, I am employed as a full-time non-instructional faculty member at the same community college as the participants of this study. In my position, I work in collaboration with administrators, faculty, and staff to integrate educational practices, strategies, and resources into the curriculum to promote and support student progress toward certificate
and degree completion. The knowledge and findings gained from this study can be useful in the work I do with faculty and administrators.

As a study group facilitator, I encouraged teachers to share their experiences, ask questions that mattered to them, raise issues that were of concern, and provide feedback to their colleagues. I felt it was important that each participant had a voice in the group.

Connelly and Clandinin (1990) state:

In narrative inquiry, it is important that the researcher listen first to the practitioner’s story, … this does not mean that the researcher is silenced in the process of narrative inquiry. It does mean that the practitioner, who has long been silenced in the research relationship, is given the time and space to tell her or his story so that it too gains the validity that the research story has long had. (p. 4)

In this process of beginning to live the shared story of narrative inquiry, it is important for the researcher to be aware of constructing a relationship in which both the participant and researcher are heard.

Many accounts of qualitative inquiry give a description of the negotiation of entry in the field situation. According to Connelly and Clandinin (1990):

Negotiating entry is commonly seen as an ethical matter framed in terms of principles that establish responsibilities for both researchers and practitioners. However, another way of understanding the process as an ethical matter is to see it as a negotiation of shared narrative unity. (p. 3)

For the purposes of this study, the shared negotiation between myself as the researcher and the participants of the study focused on narratives of teaching experiences.
To instill a sense of community and collaborative dialog within the teacher study group, I utilized a “Facilitator Talk” framework constructed by a team of educators who through their research identified major categories of the kind of talk that occurs between facilitator and group members (Birchak, et al., 1998). As shown in Table 2, the following categories of sharing, supporting, questioning, building community, negotiating and clarifying/summarizing were implemented as approaches to facilitate group discussion.

Table 2. Facilitator Talk Framework

<table>
<thead>
<tr>
<th>Category</th>
<th>Facilitator Approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sharing</td>
<td>Sharing implies that ideas are offered as suggestions and consideration rather than presented in a formal way as “truth”. Sharing invites collaboration and the willingness to take in others’ point of view.</td>
</tr>
</tbody>
</table>
| Supporting           | - Supports and encourages individuals in their own growth through non-judgmental comments made by participants. Supporting also involves encouraging others to take the risk to share their thoughts, feelings, and ideas, both professionally and personally.  
- Make connections between the study group and individual classrooms by encouraging others to share.  
- Provide protection so that group members feel free to share their beliefs and practices without being attacked. |
| Questioning          | - Ask questions or makes comments that encourage participants to challenge their beliefs, each other, or the educational system.  
- Encourages participants to consider particular issues in greater depth or from a different perspective. |
| Building Community   | - Make comments or asks questions to encourage interaction among group members and to distribute talk among more members.  
- Maintain discussion by remembering questions posed by group members and referring back to those questions.  
- Facilitate discussion of issues where individuals have different perspectives or are at different points in their own professional growth. Instead of directing the discussion to one particular point, the facilitator encourages the discussion of a variety of points on the issue.  
- Be aware of the conflict and undercurrents present in the school that may have an impact on the group discussion and willingness of certain individuals to interact in the group. |
| Negotiating          | - Work collaboratively to set agendas                                               |
| Clarifying/Summarizing| - Ask questions to encourage group members to clarify their beliefs or ideas they are sharing.  
- Make statements that summarize points of discussion. |

As the facilitator, I utilized a consistent meeting format to structure the teacher study group sessions. This enabled me to manage the meeting time and allow for opportunities to share, clarify, and summarize. In general, I informed participants of the session topic, agenda, review of preceding session, activities, and reminders. When appropriate, I introduced theory as a means to understand group activity and self-reflection. At every meeting I allowed for sharing and discussion and often encouraged participants to ask questions and share their classroom assignments and student work.

**Data Collection**

This study utilized narrative inquiry within a case study as a basis for collecting data. I collected this data to create a detailed description of the case and its context. I also used a survey to examine teachers’ beliefs about teaching and social media. In order to triangulate the data, a variety of methods were used to collect data on participants’ beliefs and personal knowledge on classroom experiences, teaching and learning practices and social media in education. These methods included the following.

**Teacher Narratives**

Narratives allow practitioners to express and explore their own experiences through story telling in ways that help them to understand their practices and develop them further (Bolton, 2006). Bruner (2002) also states that it is through narratives and stories that we construct an image of ourselves – it is through telling and listening to stories, including our own, that we are continually formed and transformed, and we become who we are. Narratives, or teacher stories, based on their past and present teaching experience and practices were collected as descriptions of experience and analyzed for connections between their teaching beliefs and practices to reveal larger
meanings. From this perspective, participants were asked to write three different stories of themselves as teacher narratives based upon their (a) past teaching experiences, (b) present teaching experience and (c) reflections on future teaching practices. Teachers were encouraged to share their stories with other participants so that they could better understand their own and other participants’ personal practical knowledge. This process of reconstructing events of the past is designed to be useful in understanding ourselves in the present (Connelly & Clandinin, 1988).

**Audio Recordings of Study Group Discussions**

Participants’ conversations in the teacher study group sessions were documented via audio recordings and transcribed into text files. Yonemura (1982) notes: “out of these reflective, supportive conversations a clearer identification of the practical principles guiding teachers can be formulated.” I collected audio recordings on eight TSG sessions.

**Written Reflections**

Teachers’ written reflections on their experience in the teacher study group were collected. Teachers wrote about any insights gained from the TSG discussions and their experience with their colleagues in the teacher study group. Written reflections were completed at the end of the teacher group session and shared among colleagues for feedback and comments. Written reflections were also collected on participants’ thoughts about a mock-up lesson plan activity (see Appendix A), which explored the connection between the CREDE standards and the use of social media as a teaching tool. Teachers shared their mock-up lesson plan and written reflection with their colleagues to obtain feedback and gain insight into the use of one or more CREDE standards as a guide to implement social media for teaching and learning.
Survey

A pre- and post-survey on teacher beliefs about teaching and social media was administered to participants to examine the impact the study group had on their beliefs about teaching and social media use for instruction. Survey questions about teaching were based on the CREDE Standards (Luning, Wyatt, & Im, 2011). A pre-survey was given online to participants on the first TSG session. The post-survey was given online at the last TSG session.

Data Analysis Plan

Creswell (2013) defines data analysis in qualitative research as “preparing and organizing the data for analysis, then reducing the data into themes through a process of coding and condensing the codes, and finally representing the data in figures, tables, or in a discussion” (p. 180). The overall approach I used to organize and analyze data is Illustrated in Figure 1, which identifies the data analysis process in terms of analytic circles rather than a fixed linear approach (Creswell, 2013).

Figure 1. The Data Analysis Spiral
Data Managing

In the organization of the data, I transcribed the teacher study group discussions from audio recordings into text files for analysis. Creswell (2013) states: “Besides organizing computer files, researchers convert their files to appropriate text units (e.g., word, a sentence, an entire story)” (p.182). In the organization of the teacher narratives, I assembled the participants’ individual teacher narratives based upon their past and present teaching experience as well as reflections on future teaching into an entire story or narrative. I also collected and organized text files for teacher written reflections about their experience and insights in the teacher study group and mock-up class assignment.

Reading and Memoing

Next, I read through the transcripts of teacher study group discussions and teacher narratives to get a sense of the whole picture of a teacher’s personal and professional experience. As I read through the transcripts and narratives, I made notes to capture ideas and thoughts, which emerged from the text. Creswell (2013) explains this process as a reflection on the larger thoughts presented in the data which form initial categories.

Describing, Classifying, and Interpreting Data into Codes and Themes

The next step in my data analysis plan was to move from the reading and memoing to describing, classifying, and interpreting the data (Creswell, 2013). During this process, codes emerged and helped to build detailed descriptions and formulate themes. Creswell (2013) states: “Researchers develop a short list of tentative codes (e.g. 25-30 or so) that match text segments, regardless of the length of the databases” (p. 184). From this short list of categories and upon further analysis and classification, the codes
are combined into approximately five or six themes, which will be used to write detailed descriptions of the interpretation of the data.

**Interpreting the Data**

Interpretation in qualitative research involves making sense of the data. Creswell (2013) states: “several forms of interpretation exist, such as interpretation based on hunches, insights, and intuition” (p. 187). He further elaborates that interpretation may also be within a social science construct or idea. My plan was to link my interpretation with the larger research literature developed by other researchers.

**Representing and Visualizing the Data**

In the final phase of the spiral, I represented the data sources in text and tables. The TSG discussions, teacher narratives, and teachers’ written reflections were represented in text, and the survey data represented in tables. For example, in the data analysis, a quote from the teacher narrative is represented in text and triangulated with the survey data represented in a table to illustrate participants’ strongest level of agreement with the Contextualization Standard.

I also collaborated with the study participants to obtain their feedback on the transcriptions and teacher narratives in order to present detailed descriptions of the teacher study group and teacher narratives. This process also involved co-constructing the narrative or retelling the story or teacher narrative. I utilized member checking to verify my conclusions. I met with group members individually to ask them to review my interpretation of their teacher narratives to ensure the accuracy of my findings and interpretation. I also asked participants if my description was complete. I shared with
participants the emerging themes of the study and asked them if they thought my interpretations were fair and representative.

**Narrative Analysis**

In addition to the general spiral analysis process, I conducted a narrative analysis to analyze the participants’ individual teacher narratives. My structure for analysis is based on Clandinin and Connelly’s (2000) approach to narrative research, which is influenced by John Dewey’s work on the nature of experience. According to Clandinin and Connelly (2000):

Dewey transforms a commonplace term, experience, in our educators’ language into an inquiry term, and gives us a term that permits better understandings of educational life. For Dewey, experience is both personal and social. Both the personal and social are always present. People are individuals and need to be understood as such, but they cannot be understood only as individuals. They are always in a social context. (p. 2)

From this perspective, teacher narratives allowed me to analyze participants’ experience as personal knowledge and situate participants in the social contexts in which they live and work. Furthermore, the narrative analysis served as a way of understanding and inquiring into experience through “collaboration between researcher and participants, over time, in a place or series of places, and in social interactions with milieus” (Clandinin & Connelly, 2000, p. 20).

I utilized Clandinin and Connelly’s three-dimensional space approach as my primary means for analyzing teacher narratives. As shown in Table 3, there are three aspects of this narrative approach: interaction, continuity, and situation. Interaction
Involves both the personal and social. I analyzed narratives for personal experiences of the participants as well as for the interaction with other people. Continuity involved the analysis of the text for information about past experiences of participants. In addition, text was analyzed for present experiences illustrated in actions of an event or actions to occur in the future. In this way, I considered the past, present, and future.

Table 3. The Three-Dimensional Space Narrative Structure

<table>
<thead>
<tr>
<th>Interaction</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal</td>
<td>Social</td>
</tr>
<tr>
<td>Look inward to internal conditions, feelings, hopes, aesthetic reactions, moral dispositions</td>
<td>Look outward to existential conditions in the environment with other people and their intentions, purposes, assumptions, and points of view</td>
</tr>
</tbody>
</table>

*Source: Adapted from Clandinin and Connelly (2000)*

In addition to this three-dimensional approach, Clandinin and Connelly (2000) described the complex analysis process as reading and re-reading through the narrative texts, considering interaction, continuity or temporality, and situation through personal practical knowledge and the professional knowledge landscape of the individual. Clandinin and Connelly (2000) described personal practical knowledge as being personally individualized and pointing inward, in terms of aesthetic, moral, and affective elements and language that are constructed as part of the experience. The professional knowledge landscape is contextual and points outward to existential conditions in the environment, in terms of other individuals’ actions, reactions, intentions, purposes, and assumptions. While reading through the narrative, Clandinin and Connelly (2000) note
that it is important to ask, “what it means” and what the “social significance” is. Furthermore, themes, tension, and patterns are also identified. The re-storying process, described by Clandinin and Connelly (2000) as retelling, first involves collaborating and renegotiating information with participants and returning again and again to the narrative field text. Finally, the researcher writes interim texts that capture an account of participants’ lived experiences.

As part of my data analysis, I assembled participants’ teacher narratives, reflections, and mock-up class assignment to capture and record the individual teacher’s story and experience. I paid attention to three aspects of my narrative approach: interaction, continuity, and situation. I looked for the details of each teacher’s personal experiences as well as personal interactions with other people. This analysis continued as I read through the narratives and paid attention to information, which addressed continuity or temporality. In this case I was reading for past and present experiences as well as reflections on future teaching practices. Situation or place was also analyzed in the narratives as I looked for specific situations in the teacher’s personal or work environment. I used member checking and often consulted with participants to confirm and verify my interpretation of their experience as part of the co-constructed process of their narrative.

Cortazzi (1993) suggests that the chronology of narrative research with an emphasis on sequence, sets narrative apart from other genres of research. A chronology may consist of past, present, and future ideas and events (Clandinin & Connelly, 2000). Beyond the chronology, researchers might detail themes that arise from the story to provide a more detailed discussion of the meaning of the story (Huber & Whelan, 1999).
Thus, the narrative analysis may be a description of both the story and themes, which emerge from it (Creswell, 1997). In the re-telling of participants’ stories, I also described their past and present experiences and noted themes, which emerged across teacher narratives.

**Summary**

This study used a narrative case study design to examine and better understand teacher participation in a teacher study group for professional development. The case being studied is a teacher study group in which six teacher participants volunteered and met at a community college for eight sessions on topics related to teaching and social media in education. Both the researcher and participants identified and chose topics for discussion.

Sociocultural theory was used as a framework to design study group participation. Teacher study group discussions were structured to give teachers time to think and reflect about their teaching beliefs and practices, and to dialog with each other about their teaching experiences, insights, understandings and lessons-learned with each other. A “Facilitator Talk” framework was used to instill a sense of community and dialog within the teacher study group.

Data was collected from study group discussions, teacher narratives, teacher written reflections, and a pre- and post-survey. My data analysis plan included organizing the data into files, memo writing and then classifying the text into codes. Through this process, codes were combined to formulate themes to write detailed descriptions of the interpretation of the data. Study group discussions were transcribed from audio recordings into text files for analysis. I also assembled each participant’s teacher
narratives and reflections to capture and record each teacher’s story and experience. Clandinin and Connelly’s three-dimensional space approach was my primary lens to analyze teacher narratives. Survey data was collected to examine the impact the teacher study group had on teacher beliefs about teaching and social media use for instruction.
CHAPTER 4

FINDINGS

The purpose of this study was to examine whether study group participation influenced community college teachers’ beliefs about teaching and social media as a teaching tool. Specifically, this study explored the following research questions:

1. What impact did the teacher study group have on six community college instructors’ beliefs about teaching and learning?

2. What impact did the teacher study group have on six community college instructors’ beliefs of the use of social media as a teaching tool?

3. To what extent did the six community college instructors’ beliefs about the CREDE standards influence their beliefs about teaching and the use of social media in their courses?

Data was collected from study group conversations, teacher narratives, written reflections and a pre- and post-survey on teacher beliefs about teaching and social media. In the organization of the data, I transcribed the teacher study group conversations from audio recordings into text files and assembled each participant’s teacher narrative and reflections to capture the individual teacher’s story and experience. I utilized Clandinin and Connelly’s (2000) three-dimensional space narrative structure as my primary lens for analyzing field texts. I read and re-read the text for personal experiences and interactions of the participants to explore teachers’ beliefs about teaching and social media use in education. In addition, I analyzed the text for information about past and present teaching experiences to identify teacher beliefs on teaching and learning. Lastly, I analyzed the text for specific situations in the participants’ environments, which may have influenced
their beliefs about teaching and social media as a teaching tool. I highlighted and captured key passages and quotes from the text and began to see codes and themes emerge across the various field texts.

The results of my data analysis are presented as findings in this chapter. First, I will present a description of the case study to provide a chronology of events and the contexts in which they occurred. This description also begins to tell the story of the participants’ personal journeys of becoming teachers and the feelings they had when they began teaching. Next I will discuss the impact of the TSG on participants’ beliefs about teaching/learning and the use of social media as a teaching tool.

Teacher Study Group

The TSG was designed to provide community college faculty an opportunity to examine and reflect upon their beliefs about teaching and the use of social media as a teaching tool. Six community college teachers were invited and volunteered to participate in the study. The group met at a community college campus on Oahu, Hawaiʻi. The college is one of the seven community colleges within a 10-campus public educational system. As the researcher and teacher study group facilitator, I met with the participants for eight sessions over a 16-week fall semester to discuss topics on social media, various teaching pedagogies, and participants’ thoughts and experiences about the use of social media in the context of teaching and learning. The study group activities included: (a) teacher conversations, (b) written reflections, (c) a mock-up class plan, and (d) teacher narratives.

The first session introduced participants to the concept of a teacher study group, session topics, activities and assignments. In relation to the activities and assignments, I
provided a brief presentation on narrative inquiry as a method to understand their personal and professional experience as teachers. I mentioned that their individual narratives would tell a story about their teaching experiences and beliefs. In sessions 2 – 7, participants learned about various social media tools, discussed teaching models, and shared thoughts and experiences about the use of social media within the context of teaching and learning. Our last session provided time for participants to reflect upon their experience in the teacher study group.

**Participants**

Four female and two male teachers participated in the teacher study group sessions. Fictional names have been given to each teacher to protect the individual’s privacy and ensure anonymity in keeping with standard research ethics. All participants currently teach at the college where the sessions were offered. Participants knew each other through campus events and some of them had served together on college committees. Other than these activities, most of them did not see each other on a regular basis due to different academic disciplines/departments and/or teaching schedules.

The teacher study group sessions provided opportunities for participants to get acquainted and share their personal and professional stories. All of the sessions were held in a workshop studio designed for small group discussion and presentations at the college. At the first session, I asked participants to reflect upon their early teaching experiences. They expressed their struggles, challenges, and epiphanies about becoming and being a teacher. The following is an introduction to the participants and their reflections of becoming a teacher.
Momi is a tenured faculty who has been teaching for 14 years. She has taught courses in composition, creative writing, and multiethnic literatures of Hawai‘i. Momi described her early teaching experience as naïve. She stated “I really believed in anybody can make it if they try.” Her personal and professional experience has taught her many valuable lessons. She explained, “What I learned most from teaching [a variety of students] was not to take their failure personally.” As Momi reflected upon her journey as a teacher she stated, “You don’t have to be in college to understand real dignity comes from being honest with yourself. So over the years, my experiences with students who are failing have taught me so much about treating all students with the kind of respect and dignity that they should have for themselves.”

Kanani is a tenured faculty who has been teaching for 16 years. She has taught courses in Multicultural Education, Survey of Human Development, Educational Research, Family Professional Partnerships, Inclusive Education, Classroom Management and Instruction, Educational Psychology, Foundations of Education and a capstone seminar and practicum. Kanani stated her early teaching experiences were “like the anticipation of motherhood itself … many days and nights of worrying, months of doubtfulness, years of trial and error, and tons of praying.” As Kanani embraced her role as a teacher, she drew upon her own personal experiences of growing up in Hawai‘i and how her experiences have provided a context for classroom teaching.

Pono is a non-tenured faculty who has been teaching for 13 years. She has taught courses in art, specifically Introduction to Photography, Intermediate Photography, Introduction to Hawaiian Visual Art, and Independent Study. She reflects upon her role as a teacher and sees herself as an inspirer and enricher of pūko‘a kani ʻāina. The pūko‘a
Kani ‘āina literally means a coral head and is a metaphor for growth and perpetual learning. This is just one example of the way Pono draws upon the deeper meanings or kaona found within the Hawaiian culture. She feels it is important for her students to engage and inspire significant connections with themselves, art, and to Hawai‘i.

Puna is a tenured faculty who has been teaching for 23 years. He has taught courses in Elementary and Intermediate Hawaiian Language, Hawaiian Literature in Translation: Pre-1800 Traditions, and an experimental course titled, Hoe Wa’a. Puna reflects upon his early teaching experiences and recalls a time of innocence and predetermined destiny, which was bestowed upon him by his mother and grandmothers. Puna continues to draw upon his spiritual connection to his family and ancestors, which informs his beliefs and ways of teaching. He stated, “Everyday I walked into class I invited my ancestors especially my grandparents to come to class with me. Of course, I soon realized that they were all the time speaking through me.” This self-knowledge and spiritual understanding is reflected in his present teaching experiences. He has realized that “we as individuals teach, learn, and inspire our fellow human beings everyday while they walk on their path of enlightenment. I have found it very important to teach course content by way of connecting the content to students’ experiences.”

Nalu is a non-tenured faculty who has been teaching for 14 years. She has taught courses in art, specifically Introduction to Ceramics, Intermediate Hand Building, Introduction to 3D Design and Introduction to Hawaiian Visual Art. Her earliest teaching experiences were fraught with anxious and awkward feelings of inability.
Despite the awkwardness of her early years, she believes that these experiences have led her to “guiding students toward strengthening their conceptual acuity.” Her teaching philosophy is to use the material of clay as a medium to introduce students to the making of art.

Koa is a tenured faculty who has been teaching for 27 years. He has taught courses in art, specifically Art Appreciation, Introduction to Design, Introduction to Ceramics, Intermediate Hand Building, Intermediate Wheel Throwing, Introduction to 3D Design and Introduction to Hawaiian Visual Art. Koa’s journey from student to apprentice to artist to teacher has truly been a learning experience. He shared, “First, I never thought I would be a teacher. I think that by itself has made me a better in the classroom. I began to develop my own teaching style which was basically being myself.” His own personal learning experience has given him an empathetic view of the teacher – student relationship. He values empathy and feels it is important to “put yourself in the student’s place.” He shared “To be a good teacher, you have to be honest, enthusiastic and passionate about what you teach, and bring that all with you to the classroom. If you do not love what you do, you cannot expect your students to be passionate or even interested.”

Impact of TSG on Teacher Beliefs About Teaching & Learning

Teacher beliefs and practices emerged from the analysis of participants’ narratives, reflections, discussions and a pre- and post-survey on teacher beliefs about teaching and social media (see Appendix B). Participants were asked to complete a pre-survey at the first teacher study group session and a post-survey at the last session to examine the impact the study group had on their beliefs about teaching and learning.
Survey questions about teaching were based on the Center for Research on Education, Diversity, and Excellence (CREDE) Standards, which are based on five principles of effective teaching across grade levels, cultures, and language groups (Tharp et al., 2000).

CREDE disseminated the principles in the form of Five Standards: Joint Productive Activity, Language and Literacy Development, Contextualization, Complex Thinking, and Instructional Conversation (Tharp et al., 2000). The development of this pedagogy has been shown to be effective in educating all students, particularly at-risk students (Tharp et al., 2000). The CREDE standards for effective pedagogy do not endorse a specific curriculum rather establish best practices for teaching that can be used in any classroom environment. For the purposes of this study, the CREDE standards were used as a framework to discuss various teaching pedagogies and strategies because of its application to a wide range of grade levels, curricula, and culture groups.

Survey questions about teaching were based on the CREDE standards and rated on 5-point Likert scale from strongly disagree to strongly agree (Luning et al., 2011). Participants’ pre-survey mean score for the five CREDE standards are from highest to lowest: Contextualization (4.27), Language and Literacy Development (4.0), Joint Productive Activity (3.73), Complex Thinking (3.58) and Instructional Conversation (3.56). Participants’ post-survey mean scores from highest to lowest: Contextualization and Language and Literacy Development (4.5), Complex Thinking (3.93), Instructional Conversation (3.81), and Joint Productive Activity (3.77). Participants’ mean scores for the pre-test items indicated that they agreed with the CREDE standards and this may have contributed to very little change between the pre- and post-survey mean scores (see Appendix C).
On the CREDE survey, participants indicated strongest levels of agreement with the Contextualization Standard. This finding was supported through the analysis of TSG discussion transcripts, teacher narratives and teacher written reflections, which identified Contextualized Instruction as a major theme with sub-themes (culturally responsive teaching, commitment to place- and culture-based education). Therefore, this topic will be explored in greater depth, followed by the other two identified themes and sub-themes, Teacher Empowerment (cultural knowledge, relationships) and Supportive Community (collegial support, social interaction, learning together).

**Contextualized Instruction**

Analysis of the study group discussion transcripts, teacher narratives, survey, and teacher written reflections indicated participants were engaged in conversation about contextualization and its application to their teaching practices and beliefs. The high pre- and post mean scores for the Contextualization Standard triangulate with participants’ discussions, narratives and reflections about place-based and culture-based instruction as shown in Table 4. Teachers spoke about the issues, challenges and benefits of integrating local and Hawaiian culture into their instruction. They also spoke and reflected upon the need to design lessons and activities that are highly contextualized to students’ home and community experiences in order to bridge familiar concepts to new conceptual understandings.

The TSG discussions, narratives and reflections related to survey item 2, 3, 4, 5, and 6 under the Contextualization Standard as shown in Table 4. Participants’ narratives placed a high value on contextualized instruction. As an example, Kanani wrote about the connection between her sense of place and teaching practice.
She stated:

Every example and every story that I provide in class is based on local, Hawai‘i culture. That is me and that is what I know best. I cannot speak to anyplace and anything else better than my own home, my own sense of place, and my own culture. This is my knowing and my being. Nonetheless, I continually strive to maintain a sense of balance. Students from other places in the U.S. and other countries are encouraged to share their stories and experiences from their place and their culture. (Teacher Narrative, October 8, 2013)

Table 4. Pre- and Post-Survey Results for CREDE Contextualization Standard

<table>
<thead>
<tr>
<th>CREDE Standard</th>
<th>Pre-Survey Mean</th>
<th>Post-Survey Mean</th>
<th>Pre/Post Mean Change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Contextualization</strong></td>
<td>4.27</td>
<td>4.50</td>
<td>.23</td>
</tr>
<tr>
<td>1. The teacher should make learning meaningful, which is best done by connecting new instruction to prior school knowledge.</td>
<td>4.17</td>
<td>4.33</td>
<td>.16</td>
</tr>
<tr>
<td>2. The teacher should assist students in making meaningful, personal, and cultural connections to the learning material.</td>
<td>5.0</td>
<td>5.0</td>
<td>0</td>
</tr>
<tr>
<td>3. The teacher should use lessons that are highly contextualized within what students already know from their home and community experiences, in order to develop abstract conceptual understandings.</td>
<td>4.17</td>
<td>4.50</td>
<td>.33</td>
</tr>
<tr>
<td>4. The teacher should contextualize lessons by using materials that are familiar to students.</td>
<td>3.83</td>
<td>4.50</td>
<td>.67</td>
</tr>
<tr>
<td>5. The teacher should respond to students’ comments by connecting personal experiences to academic content.</td>
<td>4.17</td>
<td>4.33</td>
<td>.16</td>
</tr>
<tr>
<td>6. The teacher should design activities so students make connections between what they are learning and what they already know from their homes or communities.</td>
<td>4.33</td>
<td>4.33</td>
<td>0</td>
</tr>
</tbody>
</table>

Note: N=6. (1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree)
In TSG session 3, guest presenter Dr. Lois Yamauchi, a Professor of Educational Psychology at the University of Hawai‘i at Mānoa and whose research has focused on cultural influences on learning and the experiences of indigenous teachers and students, introduced participants to the CREDE standards. Teacher group sessions 3 – 8 provided participants an opportunity to discuss the CREDE Standards in relation to their own teaching beliefs and practices. Participants spoke about the relevance and importance of the CREDE Standards to their teaching and learning practice. All participants expressed that the Standards validated their current teaching practices and gave them a framework to articulate the teaching strategies and approaches they use for student learning and engagement. Momi stated, “Through CREDE, I also see how collaboration, sense of audience, and critical thinking happens not only in the beginning of the assignment, but runs through the entire project up until the final product” (Written Reflection, October 4, 2013). Similarly Puna stated, “The CREDE standards provided me with a framework of what I am doing to help students learn. CREDE makes you more aware of when aha moments happen” (TSG Discussion, October 4, 2013). In addition, the CREDE standards encouraged teachers to rethink their approach to teaching. Kanani stated, “CREDE encourages me to think about how students can play a larger and more active role in their own learning; and contemplate how I, as a teacher, can be less of a talking head” (Written Reflection, October 18, 2013).

**Culturally Responsive Teaching.** Participants spoke frequently about how CREDE standards validated their teaching beliefs and approaches related to culturally responsive teaching and learning. Participants felt it was important to acknowledge students’ cultural heritage and to use this knowledge as a bridge to learning. Kanani
stated: “I began to connect with them [students] through what I knew and what they knew
the best – themselves … and with that came their experiences enriched with their cultural
values, beliefs, and their sense of place” (Teacher Narrative, October 18, 2013).

Several comments were repeatedly expressed about the importance of having the
student recognize his/her own culture, while at the same time having all students gain an
appreciation of other students’ cultural background. The teachers recognized not only the
importance of this type of student engagement and learning, but also maintaining a sense
of cultural identity and heritage in their course curriculum. Pono expressed:

I will always incorporate culture and place-based strategies within my teaching;
it’s an integral part of what separates living here in Hawai‘i than any place else. It
is so integral for students to know who they are culturally and understand the
reasons to take care of their places, whether they continue to live here or not.
(TSG Discussion, September 20, 2013)

In TSG session 5, several teachers shared their student work with their colleagues.
Through this exchange of class assignments it became evident that teachers allowed
students to express themselves through their own cultural lens and experiences. From this
perspective, teachers were able to use student work as examples of cultural resources for
teaching and learning. For example, the creativity and storytelling assignments from art
and writing courses acknowledged students’ cultural strengths and this experience helped
students to develop the knowledge and skill to make decisions.

Commitment to Place- and Culture-based Education. Further discussions
about contextualization, one of the five CREDE standards that guide instruction for
culturally diverse students, included place-based and culture-based education.
Participants were interested in place-based and culture-based education as a teaching strategy and chose this as one of their session topics. Puna expressed, “Today, many speak of culture-base and place-based teaching as ‘using’ the host culture as the source for teaching one’s course. Personally, I see culture-based and place-based teaching as helping the student articulate and define their individual culture and place” (TSG Discussion, November 8, 2013). Koa stated, “We should start off by using their [students’] knowledge and ask for their input about where they came from, I can see using this as a stepping stone to developing a Native Hawaiian model of teaching” (TSG Discussion, November 8, 2013). Puna added: “We should push to create our own standards for place-based and culture-based education. A first introduction to place-based/culture-based education should be to examine where they [students] are coming from” (TSG Discussion, November 8, 2013).

Other teachers reflected upon their own teaching beliefs and teaching style related to place-and culture-based education. Among the most frequently mentioned belief was to inspire and instill in students the relationship of the place to culture, tradition and modern day use. Many teachers spoke of Hawaiian practices as intuitive and having an intuitive use of senses in relation to place. Teachers expressed this intuitive approach as having students experience the elements of nature and community and the interrelationship between natural resources and community. Koa went on to describe this approach to teaching:

I have the kids have go and research Waialae Avenue and find out at least two generations back and have them do interviews about how the community has changed. They like the crack seed guy and find out from him about the people in
the community, the history, and the impact of modernization and how this impacts the culture. This gives a sense of place and the history of the community and the strengths of the community. I then have the kids think about the natural elements in the area … it instills an awareness of the natural and man-made surroundings of the place … and how art reflects the relationships of place. Another example, I have students go in the back of Palolo valley. We try to use the natural resources from the community and use the plants and soil as dyes in the classroom. We look for the traditional cultural practices and look at how we would grow and create a continuum. (TSG Discussion, November 22, 2013)

Teacher Empowerment

The teacher study group provided a pu‘uhonua or safe place for participants to share their views and essentially embrace who they are as teachers. Pono stated, “the composition of the group was vital to the openness and the ability to talk freely with one another without fear of backlash or judgment” (Written Reflection, December 6, 2013). This openness contributed to diverse discussions about existing and potential opportunities of teaching from a cultural perspective. All of the participants were of Native Hawaiian ethnicity, which naturally led to discussions about Native Hawaiian culture and values as it related to their teaching practice. Nalu stated, “I found we were able to understand the nuances of our approach to teaching and learning because we shared the same heritage” (Written Reflection, December 6, 2013). Kanani stated, “This group taught me that it wasn’t about being more or less Hawaiian, it was about living Hawaiian in your actions, your words, and in your spirit” (Written Reflection, December 6, 2013).
Cultural knowledge. TSG discussions and teacher narratives raised participants’ awareness of their own cultural knowledge and beliefs. Momi stated “the sessions reinforced my beliefs about culture-based, placed-based curriculum as well as my place, as a Hawaiian, in the college” (Teacher Narrative, October 18, 2013). Momi described her sense of place as a Hawaiian as being able to share and teach her cultural knowledge to her students. She expressed the importance and value of instilling a sense of responsibility in her students to sustain the resources of the land and the culture. She spoke of hands-on and experiential learning as teaching strategies, which make connections to Native Hawaiian culture and to the local environment, thereby contributing to the sustainability of the place. In addition, her participation in the group reinforced her own Native Hawaiian cultural knowledge and beliefs and empowered her to rely on her personal cultural experience as a resource of knowledge for her professional teaching practice. From this perspective, the TSG reaffirmed Momi’s beliefs that her cultural knowledge supported learning and learners who are actively involved in a process of knowledge construction as opposed to passively receiving information.

Several teachers felt dislocated from their cultural practice because they were unable to freely integrate their cultural knowledge into the classroom for fear it would not ‘fit’ with student expectations of the course content and be supported by the administration. Pono explained:

A kumu (teacher) teaches in relation to place or community and not necessarily always in a school like environment such as a classroom. Learning is not recorded knowledge, but passed on from teacher to student and informs your life experience. At times a kumu may be strict, but it is because he/she wants to
challenge the student to go further and beyond the surface of understanding. In this sense, the qualities of a *kumu* can be more practical and require being respectful of a teacher’s approach. I’m not so sure students would be able to understand this or accept this in the classroom. (Teacher Narrative, October 18, 2013)

Nalu stated:

> From a western teaching approach … the student directs the learning and the teacher facilitates it. It’s a different way of learning. The *kumu* is not empowered to teach and practice from their culturally based approach. For example, when I was a student with my apprenticeship with Mr. B this would include everything in life such as taking care of each other and the place where you work and learn.

(Teacher Narrative, October 18, 2013)

Although there was a range of views about how to integrate cultural knowledge into classroom practice, all of the participants expressed that the teacher student group provided a space and place to reflect upon their cultural identity and recognize their own cultural knowledge and its application to teaching.

**Relationships.** Discussions among teachers led to the belief of ‘*A ʻohe pau ka ʻike i ka halau hoʻokahi:* Not all knowledge is learned from one school. From this perspective, teachers began to discuss how they could continue to collaborate with each other on a Hawaiian teaching and learning model. Their thoughts about connecting their beliefs about culture and place-based learning led to ideas about developing a Hawaiian pedagogy that would be reflective of their relationships with each other, the place where they teach and the surrounding community.
Further discussions about this included the need to be informed by the place where teachers work and the people who are part of this place, including the kupuna (elders). Koa expressed, “This application would lend itself to all disciplines and programs. Coming from the knowledge base of teachers, a holistic and multi-disciplinary approach” (TSG Discussion, November 8, 2013). Teachers discussed that this view was contrary to a western approach to curriculum and school organization, which is based on disciplines and silos and not connected to the land and its people. Teachers expressed that a blended and integrated approach may be the first step towards an alternative educational approach to teaching and learning. Puna stated:

My experience in the group gave me a more cohesive vision amongst Hawaiians at the college. We’re looking at our past to move forward. It’s really our past experience that will guide our future. Why look at the future when it’s our past that can really tell us where to go. We also need to look at the present. It’s my past that’s tangible and my present that’s tangible, and my future is intangible. Just do our best now and your future is good. (Written Reflection, December 6, 2013)

**Supportive Community**

**Collegial support.** Participants frequently mentioned that the teacher study group provided a sense of collegiality and support among group members. Participants mentioned that the impact of a supportive group or community validated their personal and professional beliefs and choices about their teaching approaches and methods. The study group also provided a way for teachers to share their classroom experiences, exchange ideas and issues, and showcase their student work.
Social Interaction. Another impact of the teacher study group was that it gave teachers time to talk about their profession. Dialog among the group was often about their cultural beliefs and its relationship to classroom practices and teaching philosophy. Through these open discussions, a caring and sympathetic atmosphere gave participants the confidence to openly share their personal and professional beliefs and practices, and the challenges they encountered in the classroom, at the college or within themselves.

Another key benefit of the TSG was the social interaction and reflection among participants. The social learning among teachers was evident in their dialog, exchange of viewpoints and reflections. For example, participants talked about their own upbringing and learning experiences in school and this type of conversation would connect their past experiences as learners to their teaching profession. Many of the teachers would reflect on their own learning experiences from a cultural perspective or in grade school and these experiences carried over or shaped their teaching beliefs and practices. Nalu stated, “I am grateful for the diversity of ideas put forth by the group, as I appreciate the quality of thought that went into each discussion and look to initiate and integrate some of these ideas and practices into my classroom” (Written Reflection, December 6, 2013). Teachers in the group reaffirmed their colleagues’ perspectives and experiences and created a supportive group dynamic. Pono stated, “I feel this teacher study group has definitely reinforced other faculty on campus that share similar perspectives, ideas and values. I think it’s always incomprehensible for one individual to create change, but as a cohesive but diverse group, change seems more conceivable” (Written Reflection, December 6, 2013).
Learning Together. Participants spoke about the importance of learning from their colleagues. A benefit of the teacher study group was the opportunity to learn about teaching issues and strategies in academic disciplines other than their own. Learning from their colleagues provided a new perspective to teaching and a sense of renewal. Momi mentioned, “The sessions on social media were so inspirational, but it was being in a room with a group of faculty I have come to know and feel connected to that made the sessions so refreshing for me” (TSG Discussion, December 6, 2013).

Puna stated:

Our teacher study group has definitely influenced, changed, and reinforced my beliefs about teaching and learning. It has helped me to re-imagine other disciplines besides my own, particularly the art side and what their perspectives of misappropriation and exploitation. It has also enriched my contextualization toolbox. (Written Reflection, December 6, 2013)

The study group underscored the importance of having participants select discussion topics related to their teaching interests and experiences. This type of flexibility gave teachers a voice to discuss personal and professional interests and experiences. It allowed for the exchange of various viewpoints to increase understanding of their own teaching practice and that of others. It also provided the group time to think about future collaborations and continue to discuss teaching methods and practices, which they believe to be significant to teaching and learning at the college. For example, members of the group expressed an interest to continue to meet as a group to talk about culture and place-based education, and begin to discuss a plan to develop a Hawaiian
pedagogical model that is reflective of their own cultural knowledge and practice, while at the same time applicable to all academic disciplines at the college.

**Impact of TSG on Teacher Beliefs About Social Media as a Teaching Tool**

The impact of the study group on participants’ use of social media as a teaching tool emerged from an analysis of their teacher study group discussions, narratives, reflections, and a pre- and post survey. Survey questions asked participants about their beliefs about using five social media tools (Facebook, Twitter, Blog, ‘Imiloa, and Instagram) for teaching and learning. The social media tools chosen for this study represent a different application of networking collaboration and communication. For example, Twitter is primarily a text-based delivery system for network communication whereas Instagram is an online photo sharing, video-sharing and social networking service. Facebook is a combination of both text and image, allowing users to create a profile and share information with group members. A blog is an online content management system, utilizing a combination of text, image and video, allowing users to publish online stories, articles, and newsworthy events. ‘Imiloa is an online social networking site, which is similar to Facebook and used for student engagement and support. The site allows students to create profiles, join academic support groups and utilize student support resources. ‘Imiloa is an online student resource site provided by the college where participants work. All of the social networking tools allow for the creation and exchange of user-generated content.

Participants’ use of social media for instructional use ranged from never to weekly when the study began. There was very little change in their use after their participation in the study group. For the pre-survey results, two out of six teachers used
Facebook occasionally (1 or 2 times). Two teachers used the Blog occasionally while another teacher used the Blog weekly. Post-survey results indicated a slight change in instructional use. One participant indicated using the blog more frequently from occasionally to sometimes as shown in Table 5.

Table 5. Pre- and Post-Survey Results for Social Media Use for Instruction

<table>
<thead>
<tr>
<th>How often do you use the following social media for instruction?</th>
<th>Never</th>
<th>Occasionally (1 or 2 times)</th>
<th>Sometimes (1 to 3 times a month)</th>
<th>Weekly</th>
<th>Daily</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facebook (6)/(6)*</td>
<td>4/4</td>
<td>2/1</td>
<td>0/1</td>
<td>0/0</td>
<td>0/0</td>
</tr>
<tr>
<td>Twitter (5)/(6)</td>
<td>5/5</td>
<td>0/0</td>
<td>0/0</td>
<td>0/0</td>
<td>0/0</td>
</tr>
<tr>
<td>Blog (5)/(6)</td>
<td>2/2</td>
<td>2/1</td>
<td>0/1</td>
<td>1/1</td>
<td>0/0</td>
</tr>
<tr>
<td>‘Imiloa (5)/(6)</td>
<td>3/3</td>
<td>2/1</td>
<td>0/1</td>
<td>0/1</td>
<td>0/0</td>
</tr>
<tr>
<td>Instagram (5)/(6)</td>
<td>5/5</td>
<td>0/0</td>
<td>0/0</td>
<td>0/1</td>
<td>0/0</td>
</tr>
</tbody>
</table>

*Number of pre/post survey respondents

In order to determine teachers’ beliefs about the importance of social media use in education, participants were asked to respond to questions on a pre- and post-survey and select to what extent did they believe social media can serve as a teaching tool in general. Participants’ responses from the pre- to post-survey indicated a very slight decline in their belief about using social media as a teaching tool as shown in Table 6. For the pre-survey results, participants ranked the following social media as a teaching tool from highest to lowest: 1) Blog, ‘Imiloa, 2) Facebook, 3) Twitter and 4) Instagram. On the post-test, participants ranked from highest to lowest: 1) Blog, 2) ‘Imiloa, 3) Instagram, 4) Facebook, and 5) Twitter. The highest gain was made for the Blog as a teaching tool in general. Facebook and Twitter indicated a slight decline. The not sure responses decreased from the pre- to post-survey for Facebook, Twitter, Blog, and Instagram. There was no change for ‘Imiloa.
Table 6: Pre- and Post-Survey Results for Social Media as a Teaching Tool

<table>
<thead>
<tr>
<th>Social Media Use in Education</th>
<th>Pre-Survey Mean/ # Not Sure</th>
<th>Post-Survey Mean/ # Not Sure</th>
<th>Pre/Post Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>To what extent do you believe the following media can serve as a teaching tool?</td>
<td>2.72</td>
<td>2.65</td>
<td>-0.7</td>
</tr>
<tr>
<td>Facebook</td>
<td>2.8 (1)*</td>
<td>2.16 (0)</td>
<td>-0.64</td>
</tr>
<tr>
<td>Twitter</td>
<td>2.25 (2)</td>
<td>2.0 (1)</td>
<td>-0.25</td>
</tr>
<tr>
<td>Blog</td>
<td>3.4 (1)</td>
<td>3.5 (0)</td>
<td>0.1</td>
</tr>
<tr>
<td>ʻImiloa</td>
<td>3.4 (1)</td>
<td>3.4 (1)</td>
<td>0.0</td>
</tr>
<tr>
<td>Instagram</td>
<td>1.75 (2)</td>
<td>2.2 (1)</td>
<td>.45</td>
</tr>
</tbody>
</table>

1=Not at all, 2=To a small extent, 3=To a moderate extent, 4=to a great extent.
*Number of “not sure” responses.

As participants discussed their thoughts about the use of social media, contrasting viewpoints were shared. Analysis of study group transcripts triangulate with the survey data related to the slight decline in participants’ belief that social media can serve as a teaching tool. For example, Pono stated, “… until social media works out copyright issues, intellectual property rights and privacy problems I think I would stay away from incorporating it within my classes. In my opinion and experience with teaching studio art classes, students appreciate having face-to-face discussions and conversations” (TSG Discussion, October 18, 2013). Other teachers drew from their personal experiences and felt social media should take place outside the classroom and were not convinced of their usefulness as a teaching tool. Kanani stated:

I believe social media should take place outside the academic arena. What does “tweeting” via Twitter teach students? How about Instagram? Facebook? If these tools are employed to teach or increase interaction and communication skills, then why is my nephew and all of his friends, who are extremely proficient and
using these tools, having a difficult time in communicating and interacting with others face-to-face? (Teacher Narrative, December 6, 2013)

The decline in mean score for Facebook and Twitter may be attributed to the impact of teacher study group session 2. In session 2, participants’ colleagues who use social media as a tool for learning were invited as guest presenters to share their teaching experiences. An academic support faculty member also presented on the use of Facebook and ‘Imiloa in an educational context. Participants were able to dialog with the faculty presenters and ask questions about the use of Facebook, Twitter, the Blog, ‘Imiloa and Instagram as a teaching tool. Guest presenters shared teaching experiences about using social media and the issues and challenges they encountered about privacy and having to be available 24 hours a day 7 days a week. There were also challenges with having students create and set-up accounts with Instagram.

Participants frequently stated that they would need support to help students set up accounts for different social networking sites as well as support and time to learn about the new technology. In addition, teachers commented that multiple usernames and passwords and logging on to multiple technology systems are not practical for the student and the teacher. Other viewpoints found social media helpful as a teaching tool in general for reflective writing and to create a sense of community among students.

Participants’ responses from the pre- to post-survey indicated a very slight increase in their belief about using social media as a tool to help students learn from each other as shown in Table 7. For the pre-survey results, participants ranked the following social media as a tool to help students learn from each other from highest to lowest: 1) Blog, ‘Imiloa, 2) Facebook, and 3) Twitter and Instagram. On the post-test, participants
ranked from highest to lowest: 1) Blog, ‘Imiloa, 2) Facebook, 3) Instagram, and 5) Twitter. The “not sure” responses decreased from the pre- to post-survey for Twitter, Blog, and Instagram. There was no change for ‘Imiloa.

Table 7. Pre- and Post-Survey Results for Social Media Use to Help Students Learn

<table>
<thead>
<tr>
<th>Social Media Use in Education</th>
<th>Pre-Survey Mean/ # Not Sure</th>
<th>Post-Survey Mean/ # Not Sure</th>
<th>Pre/Post Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>To what extent do you believe the following social media can help students learn from each other?</td>
<td>2.8</td>
<td>2.9</td>
<td>0.1</td>
</tr>
<tr>
<td>Facebook</td>
<td>3.0 (1)*</td>
<td>2.6 (3)</td>
<td>-0.4</td>
</tr>
<tr>
<td>Twitter</td>
<td>2.3 (2)</td>
<td>2.3 (1)</td>
<td>0</td>
</tr>
<tr>
<td>Blog</td>
<td>3.2 (1)</td>
<td>3.6 (0)</td>
<td>0.4</td>
</tr>
<tr>
<td>‘Imiloa</td>
<td>3.2 (1)</td>
<td>3.6 (1)</td>
<td>0.4</td>
</tr>
<tr>
<td>Instagram</td>
<td>2.3 (2)</td>
<td>2.4 (1)</td>
<td>0.1</td>
</tr>
</tbody>
</table>

1=Not at all, 2=To a small extent, 3=To a moderate extent, 4=to a great extent. *Number of “not sure” responses.

Analysis of the teacher study group transcripts indicates that teachers found the Blog to be useful for peer-to-peer learning and to help students share reflections. Momi expressed, “I wanted to make writing and literature more ‘visual’, therefore more engaging. Most important of all, I felt the linear relationship of written response to teacher and back was utterly worthless” (TSG Discussion, September 6, 2013).

Participants also discussed how to make students comfortable with an online identity. Some of the struggles a teacher presenter shared with the participants were related to how to help students maintain a public image while maintaining their privacy. Students’ pre-existing social networking accounts came in to play as well. For example, students who already had an Instagram account had concerns about sharing all of their personal photos with their classmates. To work around this issue, students eventually created new online profiles within Instagram. The guest presenter commented, “what was really clear to me
is that the new media do provide powerful tools extending the classroom, but then the thing is their significant concerns relative to privacy, relative to how they view where their classroom experience ends.” These discussions may have had an impact on the low mean scores for Twitter and Instagram as a tool to help students learn.

Participants indicated a slight increase in their belief about the use of social media as a tool to help students conduct collaborative tasks as shown in Table 8. Participants found the Blog as the most useful social media tool to help students conduct collaborative tasks. For the pre-survey results, participants ranked the following social media as a tool to help students conduct collaborative tasks from highest to lowest: 1) Imiloa, 2) Blog, and 3) Facebook and 4) Twitter and Instagram. On the post-test, participants ranked from highest to lowest: 1) Blog, 2) ‘Imiloa, 3) Facebook and Twitter and 4) Instagram. The “not sure” responses decreased from the pre- to post-survey for Facebook, Twitter, Blog, and Instagram. There was no change for ‘Imiloa.

Table 8. Pre- and Post-Survey Results for Social Media Use to Help Students Collaborate

<table>
<thead>
<tr>
<th>Social Media Use in Education</th>
<th>Pre-Survey Mean/ # Not Sure</th>
<th>Post-Survey Mean/ # Not Sure</th>
<th>Pre/Post Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>To what extent do you believe the following media can help students conduct collaborative tasks (e.g. group work, group projects)?</td>
<td>2.76</td>
<td>2.88</td>
<td>0.12</td>
</tr>
<tr>
<td>Facebook</td>
<td>3.0 (2)*</td>
<td>2.3 (0)</td>
<td>-0.7</td>
</tr>
<tr>
<td>Twitter</td>
<td>2.3 (3)</td>
<td>2.3 (0)</td>
<td>0</td>
</tr>
<tr>
<td>Blog</td>
<td>3.0 (1)</td>
<td>3.8 (0)</td>
<td>0.8</td>
</tr>
<tr>
<td>‘Imiloa</td>
<td>3.2 (1)</td>
<td>3.6 (1)</td>
<td>0.4</td>
</tr>
<tr>
<td>Instagram</td>
<td>2.3 (3)</td>
<td>2.4 (1)</td>
<td>0.1</td>
</tr>
</tbody>
</table>

1=Not at all, 2=To a small extent, 3=To a moderate extent, 4=to a great extent.
*Number of “not sure” responses.
Participants had mixed views of the use of social media as a collaborative tool for learning. Pono stated:

I’ve been observing how the students are working collaboratively, and the best way is not through texting, but sitting down together and having face-to-face discussions. There is also the whole copyright issue, which I try to instill in my students. Students also still work in the darkroom, where they collaborate and dialogue while working. If the class ever became a digital class I think it would be more appropriate for social media, but by then, it would be something completely different. (Written Reflection, October 18, 2013)

Momi stated:

I am fully aware that an online forum has its negatives. Students can copy each other, other student writing intimidates students, and students can write inappropriately, but I created ground rules and learning takes place when ground rules are in place. In the end, it’s about the learning not the rules. (Written Reflection, October 18, 2013)

Other viewpoints indicated that social media as a collaborative tool fostered dialog among students in a community of learners. Momi stated:

Students establish a community and they have been given a set of parameters, and they operate within those parameters to produce a product or a form of expression that ultimately informs/inspires other members of that culture to create and express … a loop similar to a media/culture loop is created. Media or in this case social media, is the platform used to create that loop. (Written Reflection, October 18, 2013)
Teacher study group discussions, teacher narratives and teacher written reflections represented various viewpoints on the use of social media as a tool for teaching. Through an analysis of text data, a theme and subthemes emerged: Making Connections (relevance, appropriateness, learning community). The following themes were examined to reveal teachers’ beliefs about the use of social media related to their teaching practice.

Making Connections

Participants’ beliefs about using social media as a teaching tool varied. Many of the participants felt apprehensive about using social media for instruction because they weren’t convinced of its effectiveness as a teaching tool or it’s relevance to their course. Others felt social media has its place outside of the academic institution, while others saw it as a tool to help students learn as well as a way to give back to the community.

Relevance. Participants spoke about the relevance of social media use in relation to their beliefs, course objectives and academic discipline in general. Pono stated, “I’m a traditionalist. I’ve been observing how the students are working collaboratively and the best way is not through texting, but sitting down together and having face-to-face discussions. They need to look at each other’s contacts [photo sheet] rather than ‘face-booking’ or ‘instagramming’ images” (Written Reflection, October 18, 2013). Many of the teachers expressed the need to address hands-on learning in their art classes. Other teachers who teach hybrid or writing courses saw the benefits of using social media to enhance students’ writing skills. Teachers who taught in this area shared that students write with more depth and length.
Appropriateness. Participants repeatedly expressed issues about the appropriate use of social media in their course. One of the issues was related to students’ online identity. Discussions about this area raised concerns about privacy and boundaries in terms of sharing personal information and images. A guest presenter shared, “We talk about what students put out online, how they are presenting themselves. The idea of having students actively engage and ask questions has been beneficial.” The issue of an online identity was also related to the use of Blogs. The guest presenter shared her experiences with this issue and commented that she decided to use a public blog, so students would think about their digital identity and have them be aware of what they are writing, saying, and doing online. Participants’ discussion about this raised the need for teacher support about how to set up student accounts and awareness of Internet policies at their college.

The concept of extending the classroom beyond the traditional class schedule and meeting place introduced new teaching issues in terms of communication. For example, conversation included teacher availability to respond to online text comments and responses as well as defining the appropriate degree of student participation online. Several participants expressed the need to establish boundaries and rules to inform students of appropriate behavior and teacher/class expectations.

Another issue that surfaced in teacher conversations was the use of “net speech”. In this case it was related to the use of Twitter as a means to communicate using 140 characters for each post. A teacher presenter responded, “Instead of saying ‘you’ they use the letter ‘U’ in this format that is specifically developed for a limited amount of characters … is that appropriate?” Participants’ expressed that this was a concern, but
were not sure about how they would address this in their course as none of them have used Twitter for instructional use nor were they inclined to do so in the near future.

**A Learning Community.** Teachers viewed social media as a tool to create a learning community. Momi shared, “It’s a place for students to co-author or co-create in terms of a learning community, very effective in doing that and a place for them to create a personal home page or resume” (TSG Discussion, October 4, 2013). Puna added, “To have students connect with the community, I have them post on social networking sites that ask for more information on Hawaiian genealogy” (TSG Discussion, October 4, 2013). Several teachers expressed that the medium provided a venue for students to participate in class who otherwise might not be willing to vocalize or express themselves in a meaningful way in class.

**CREDE Standards as a Guide for Social Media Use**

In TSG session 4, the topic for discussion was about whether there was a connection between the CREDE Standards and the use of social media for teaching and learning. In TSG session 5, participants were asked to design a mock-up class assignment, using a social media of their choice, and to think about use of the CREDE Standards as a guide to design and integrate social media in their course. Participants’ responses from these two sessions expressed a range of viewpoints.

Two participants did not see any connection between the CREDE Standards and the use of social media as a teaching tool. Both participants teach Art classes at the community college. Nalu commented, “I suppose the CREDE guidelines gives us an academically accepted way to articulate and support what we are already doing in the classroom. Has it made a difference in how I approach incorporating social media into
the course curriculum … no” (TSG Discussion, October 18, 2013). Additional comments from Nalu included the lack of support regarding the integration of technology in her course curriculum. Pono expressed, “I think for Art classes we use all of the CREDE Standards, but the only change would be visual language rather than Language and Literacy Development. I honestly do not think using a CREDE Standard would influence me in using social media as a tool in the classroom” (TSG Discussion, October 4, 2013). Additional comments from Pono included issues with copyright and the need for students to look at each other’s [photo] contacts. The one participant who was neutral about using the CREDE standards as a guide for social media use was also an Art teacher.

Three participants spoke of the potential use of the CREDE Standards as a way to actively engage students in online learning environments. Kanani who is a social science teacher at the college expressed:

I did not think about the utilization of social media as I pondered how the CREDE standards would fit into my courses. Why? Perhaps, it is because I can implement such standards without the use of social media. Will students be more engaged without the amalgamation of social media tools? Will my delivery still be effective? Will students learn just as much? I don’t know. But, I also don’t know if the utilization of social media will produce better results. Nonetheless, I clearly see how the CREDE standards are a conduit to having teachers think about social media. Perhaps, I was compelled to think about it because I teach on-line. What are readily available (i.e., in-person interactions, facial expressions, body language, and immediacy) to me in the classroom are not so easily obtainable in an on-line environment. Thus, I have to continuously generate ideas/ways to:
engage and retain students; create assignments to promote active learning, practice, and application; and cultivate student-teacher, student-student, student-community/school interactions. So, is there a place for social media in my courses? Most definitely. Am I eager to dive in and use social media? No, not really. Will I try? You bet...but, in my own time, at my own pace, and within my own comfort level. (Written Reflection, October 18, 2013).

Momi who is English and Literature teacher at the college stated:

Yes, CREDE helps me to think about how students would use social media in course assignments in a more structured way than before. When I first developed the digital story assignment for my class, I focused more on the student engagement. Most of us are visual learners and I felt that I needed to somehow transform the typical freshman essay assignment that is typed, printed out and then turned in to the teacher into an activity that was more visual, collaborative and meaningful. What CREDE has helped me do is articulate, in a more structured way, the benefits of the process of the assignment from start to finish. Through CREDE, I also see how collaboration, sense of audience, and critical thinking happens not only in the beginning of the assignment, but runs through the entire project up until the final product – the piece that is posted online. I see now how the assignment is not linear at all, but this cyclical nature of the assignment cannot be achieved with having the digital story posted online. (Written Reflection, October 18, 2013)
Puna who teaches Hawaiian language courses stated:

If faculty use CREDE it would help them think about what to put online. With social media you need to know what social media can do. CREDE can provide a context for hybrid courses. (TSG Discussion, October 18, 2013).

Summary

The findings from this study revealed the impact of a teacher study group on six community college instructors’ beliefs about teaching and the use of social media as a teaching tool. Participants’ beliefs about teaching emerged from survey responses, group discussions, written reflections and teacher narratives on their personal and professional experiences. Participants’ high mean scores on the pre- and post-survey for items related to the CREDE Standards indicated no substantial change. This suggests that participants were in agreement with the Standards and thus the differences between the pre/post mean scores are not significant. In addition, there were no substantial differences between the pre- and post-survey for items related to the use of social media for teaching and learning. Thus, survey results indicate no significant changes in participants’ beliefs about the use of social media for teaching and learning. Through an analysis of data, several themes and subthemes emerged: (a) Contextualization (culturally responsive teaching, commitment to place- and culture-based education), (b) Teacher Empowerment (cultural knowledge, relationships), (c) Supportive Community (collegial support, social interaction, learning together), and (d) Making Connections (relevance, appropriateness, learning community).
CHAPTER 5

DISCUSSION

Summary of Major Findings

Teacher study group discussions and activities revealed the impact of the study group as a form of professional development to empower and support teachers in their teaching profession. The study group provided a supportive community for teachers to share their teaching experiences and reaffirm their teacher beliefs and practices. Findings from the study suggest participants needed to explore their beliefs about teaching in-depth before they considered integration of social media. Therefore, the study came to focus on teacher beliefs, specifically related to place- and culture-based education, rather than social media as originally planned.

Relating Findings to Research Questions

The interaction within a teacher study group emphasized the important role of colleagues in professional development to support reflection on and development of knowledge and skills required for effective teaching. Conversation about teaching and learning was situated in meaningful activities connected to teacher practices and everyday life. For the purposes of this study, the teacher study group provided a venue for participants to reflect upon their teaching beliefs and practices and discuss whether their beliefs and practices aligned with the need to use social media. A summary of the major findings of this study is presented in the context of the research questions and existing literature.
The Impact of the TSG on Beliefs about Teaching and Learning

The first research question addressed what impact the teacher study group had on six community college instructors’ beliefs about teaching and learning. A significant impact of the teacher study group was that it provided a safe and supportive atmosphere for participants to freely share their ideas and views about teaching among their colleagues. This atmosphere contributed to collegial support and diverse discussions about existing and potential opportunities of teaching from a cultural perspective. I found it was important to initially create a safe and supportive atmosphere among colleagues because it allowed colleagues to share and have more in-depth discussions. I also discovered that participants were able to recognize and value their own expertise through their social interaction among colleagues within the study group. This sense of empowerment raised teachers’ awareness of their own cultural knowledge and experience as a resource for professional teaching practice.

Teacher study group discussions indicated that all participants placed a high value on contextualized instruction as a means to acknowledge students’ cultural heritage and to use this knowledge as a bridge to learning. Participants chose place- and culture-based education as their session topics to further explore what this teaching method means to them personally and professionally as well as how they could potentially increase its application in the classroom. Study group transcripts revealed that teachers acknowledged the value of students’ cultural values, beliefs and their sense of place as a way to connect personal experience to academic content and classroom activities. Teachers spoke about the importance of helping students articulate and define their
individual culture as a way to understand themselves and to have a greater appreciation of other students’ cultural backgrounds.

I found participants’ study group discussions helped teachers to think through connections between their beliefs and their teaching practices. Discussions about contextualized instruction led participants to reaffirm their commitment to place- and culture-based education. Teachers discussed their personal views and beliefs about the importance to inspire and instill in students the relationship of a sense of place to culture, tradition and modern day use. Some teachers spoke of Hawaiian practices as having an intuitive use of senses in relation to place. Teachers expressed this intuitive approach as having students experience the elements of nature within the community and the interrelationship between natural resources and community. Participants talked about the importance and value of instilling a sense of responsibility in students to sustain the resources of the land and the practices of the culture.

Graves (2001) stated that when teachers feel emotionally connected with their colleagues, they feel more energetic and experience more satisfaction than working alone. The findings in this study support the literature on the value of teacher study groups that build supportive relationships. One teacher commented, “I feel this teacher study group has definitely reinforced other faculty on campus that share similar perspectives, ideas and values. I think it’s always incomprehensible for one individual to create change, but as a cohesive but diverse group, change seems more conceivable.” Participants commented on the value of getting to know their colleagues better and understanding other teaching practices within other academic disciplines. They also commented on the value of a supportive collegial network and the appreciation of other
teachers’ perspectives. Participants frequently mentioned that the study group provided a sense of collegiality, which validated their own teaching practices and provided an opportunity to learn about teaching issues and strategies in academic disciplines other than their own. One teacher shared, “I am grateful for the diversity of ideas put forth by the group, as I appreciate the quality of thought that went into each discussion and look to initiate and integrate some of these ideas and practices into my classroom.” Teachers in the group reaffirmed their colleagues’ perspectives and experiences and created a supportive community among colleagues.

Research findings indicate that teacher study groups create a collaborative and collegial atmosphere among the participants (Wildman, Hable, Preson, & Magliaro, 2000). Furthermore, Lancy, Rhees, and Kinkead (1994) argue that the American tradition of individualism has prized solitary effort and competition, making it difficult for teachers to work collaboratively. The findings in this study support the literature on the importance of belonging to a teacher study group to support collaborative work among colleagues. Teachers commented that they felt inspired to continue their discussions as a group and discussed collaborating on a Hawaiian teaching and learning model that is reflective of their own cultural knowledge and practice and working with other faculty to develop a model that was applicable to all academic disciplines at the college. Teachers also discussed the need to work with other people who have knowledge of the place where they work, including kupuna (elders) and community members.
The Impact of the TSG on Beliefs About Social Media as a Teaching Tool

The second research question addressed what impact the teacher study group had on six community college instructors’ beliefs about the use of social media as a teaching tool. The teacher study group provided participants time to reflect and discuss the use of five social media tools (Facebook, Twitter, Blog, ‘Imiloa, and Instagram) in relation to their teaching beliefs and practices. Study group discussions indicated that participants held mixed views about the use of social media as a teaching tool.

According to this study’s findings, teachers’ beliefs about the use of social media were impacted by their disciplines. Additionally, the findings from this study suggest that the use of social media as a teaching and learning tool was directly related to teachers’ beliefs about current course goals and objectives. Several teachers expressed the need to address hands-on learning in their art classes and found social media ineffective as a teaching tool to support this type of learning. One art teacher commented that she was a traditionalist and stated, “I’ve been observing how the students are working collaboratively and the best way is not through texting, but sitting down together and having face-to-face discussions. They need to look at each other’s photo contacts rather than ‘face-booking’ or ‘instagramming’ images.” Other teachers who teach hybrid or writing courses spoke about the benefits of using social media to enhance students’ writing skills. Teachers who taught English courses commented that students who used a blog wrote with more depth and length. One participant who taught Hawaiian language courses mentioned the value of social media as a way to connect students with the community.
Teachers who taught English and literature courses mentioned that social media can serve as a tool to create a learning community where students can co-author or co-create student work. Some teachers expressed that social media provided a way for students to participate in a meaningful way who might not otherwise be willing to vocalize in class. Other viewpoints found social media helpful as a teaching tool for reflective writing and to create a sense of community among students for group discussions and participation. Participants found the Blog as the most useful social media tool to help students learn and conduct collaborative tasks.

Discussions in the teacher study group also revealed participants’ concerns and issues with social media use in regards to copyright, intellectual property rights, and privacy. One teacher felt apprehensive about using social media for instruction because they weren’t convinced of its effectiveness as a teaching tool or its relevance to their course. Another teacher felt social media has its place outside of the academic institution.

Discussions with colleagues who were invited to share their teaching experiences with the use of social media in their courses may have influenced teaches’ beliefs about the use of social media as a tool to help students learn. Colleagues shared issues and challenges they encountered about privacy and having to be available “24/7”. There were also challenges with having students create and set-up accounts with Instagram. Participants frequently stated that they would need support to help students set-up accounts for different social networking sites as well as support and time to learn about the new technology.

Other views of social media use were related to discussions about students’ online identity, which raised concerns about privacy and boundaries in terms of sharing personal
information and images. Teachers also discussed the concept of extending the classroom beyond the traditional class schedule and meeting place. Several participants expressed the need to establish course rules to inform students of appropriate behavior and teacher/class expectations.

I found participants were less interested in a discussion about how to apply social media to teaching than in discussions about contextualized instruction as it related to their own cultural beliefs and knowledge. Participants’ felt empowered to explore how their own cultural knowledge can be applied to their teaching practice. This self-empowerment led teachers to further discuss and explore teaching strategies related to a sense of place and community rather than social media integration.

**The Impact of the TSG on Beliefs About CREDE Standards**

The third research question addressed to what extent the six community college instructors’ beliefs about the CREDE standards influenced their beliefs about using social media in their courses. For the purposes of this study, the CREDE standards were used as a framework to discuss various teaching pedagogies and strategies because of its application to a wide range of grade levels, curricula, and culture groups. The CREDE standards were also used as a guide to assist faculty in the use of social media for teaching and learning.

All participants expressed that the CREDE Standards validated their current teaching practices and gave them a framework to articulate teaching strategies and approaches they use for student learning and engagement. Participants also mentioned that the standards helped them to see how students can play a larger and more active role in their own learning, and as a teacher, be less of a talking head. Participants commented
that the CREDE standards helped provide a framework to help students learn more collaboratively in class. Among the five standards, participants were most engaged in conversations about contextualization and its application to their teaching practices and beliefs. Participants spoke frequently about how CREDE standards validated their teaching beliefs and approaches related to culturally responsive teaching and learning.

Participants’ beliefs about the use of CREDE standards as a guide to use social media for teaching and learning varied. Two art teachers’ comments reflected issues with the social media as a tool to facilitate learning in their courses, therefore the use of the CREDE standards was not useful as a way to guide the use of social media use in their classroom. One art teacher did not give an explanation, while the other expressed issues with copyright, privacy, and intellectual property rights. This teacher also commented that she valued face-to-face discussions. One participant who was also an art teacher was neutral about using the CREDE standards as a guide for social media.

Three participants spoke of the potential use of the CREDE Standards as a way to actively engage students in online learning environments. One teacher who teaches Hawaiian language commented that the CREDE Standards could provide a context for hybrid courses. He also mentioned that the CREDE standards could provide a means to help him decide which activities to put online.

A social science teacher commented that she could see how the CREDE standards are a conduit to having teachers think about the use of social media in online courses. She mentioned that she was probably more compelled to think about using CREDE as a guide because she teaches online and would need to generate ideas and ways to engage and retain students. She also stated that the loss of in-person interactions, facial expressions,
body language, and immediacy are not so easily obtainable in an on-line environment. Thus she would need to create assignments to promote active learning, and cultivate student-teacher, student-student, and student-community/school interactions.

An English and literature teacher commented that the CREDE Standards helped her to think about integrating social media in a more structured way, especially for course assignments. Through CREDE, she was able to see how collaboration, sense of audience, and critical thinking happens not only in the beginning of the assignment, but runs through the entire project up until the final product which is then posted online. CREDE helped this teacher to see how the use of social media created non-linear assignments that were cyclical in nature.

**Theoretical Implications**

The findings of this study connect to sociocultural theory, which suggests that people construct meaning through their interactions with and experiences in their social environments (Vygotsky, 1978). This theory suggests that social interaction is mediated by tools such as language to facilitate the co-construction of knowledge. For Vygotsky, semiotic mechanisms such as language and symbols mediate social and individual functioning and connect the external and the internal, the social and the individual (Wertsch & Stone, 1985).

The results of this study support Vygotsky’s theory on how language is an important tool, which helps mediate interaction among individuals. From this view, thinking takes place through the medium of language, and language helps frame problems in new and important ways. From this perspective, language and discourse can be a critical and important part of the professional development process, which helps to
frame a problem or re-conceptualize ideas and concepts. Furthermore, collaborative discussion in collegial groups enables individuals to examine their thinking about teaching among colleagues. This interaction emphasizes the important role of colleagues in professional development to support each other through reflection and dialog on the development of knowledge and skills for effective teaching.

**Limitations of the Study**

The process of integrating new knowledge with a teacher’s lifetime of experience requires time and support from the educational institution. I found time to be the greatest limitation in this study, both in terms of the length of the teacher study group sessions and the constraints of teachers’ time due to workload and commitments outside of their class schedule. The eight study group sessions took place over a single semester. This time period allowed faculty to get to know each other and form relationships. It also allowed time for faculty to be introduced to new teaching and learning models and strategies as well as new technology for teaching and learning. Time for discussion and reflection was given to explore how teacher beliefs related to teaching and social media integration. Study group discussions included participants’ teaching experience, topics related to contextualized instruction and the use of social media for instruction. These discussions and activities limited any further discussion about new learning innovations in their academic disciplines as it related to teaching and social media.

This suggests the need to provide ample time, at least 2 semesters or 32 or more hours, for colleagues to interact with and help each other as they explore new pedagogies and innovations for classroom practice. Potential topics in this area, such as new literacies, could have been discussed in depth as part of a teacher study group if the study
had extended over two semesters. This also suggests the need to have experienced
teachers who teach within the same discipline share their experiences with technology or
in this case social media innovation.

Participants received professional development credit for their participation in the
study, which was recognized and approved by the Vice Chancellor for Academic Affairs
as a professional development activity at the college where participants worked.
Although this was a positive action on the part of the college, much more support needs
to be provided to faculty, such as appropriate incentives and release time from their
teaching schedules, to allow for teachers to participate in a teacher study group extended
over two or more semesters. This extended time period can provide further exploration
about innovations in teaching or teaching with new technologies within discipline
specific areas as well as in-depth discussions to improve classroom practice and promote
curriculum reform.

Finally, the teacher study group consisted of a small number of participants who
represented three academic disciplines. In addition, all participants were from the same
community college and findings were limited to one site. Thus, the data cannot
necessarily be generalized to other people and situations.

**Significance of the Study**

The significance of this study suggests that study group participation as a form of
professional development helps teachers to validate, value and reinforce their own
expertise through social interaction among colleagues. A significant impact of this study
was that it renewed teachers’ beliefs, and raised their awareness of their own knowledge
and experience as a resource for teaching practice. Study group discussions and
reflections indicated the value of learning from colleagues to jointly explore new teaching models, methods, tools, and beliefs, and support each other as they collaborate and transform classroom practice.

This study helps educators to better understand how teacher study group participation can help teachers examine their beliefs about teaching as they relate to classroom practice and the infusion of new technologies to facilitate student learning. Teacher study group discussions about contextualized instruction helped teachers to reaffirm their beliefs, values and commitment to place- and culture-based education. Teachers discussed the importance to inspire and instill in students the relationship of a sense of place to culture, tradition, and modern day use. Teachers spoke about the importance of helping students articulate and define their own culture as a way to understand themselves and have a greater appreciation of other students’ cultural backgrounds. They also spoke and reflected upon the need to design lessons and activities that are highly contextualized to students’ home and community experiences in order to bridge familiar concepts to new conceptual understandings. Study group activities and dialog led to further exploration and inquiry about collaborating on a Hawaiian teaching and learning model that is reflective of their own cultural knowledge and practice. Teachers commented on the importance of working with other faculty to develop a contextualized Hawaiian teaching and learning model applicable to all academic disciplines.

Study group discussions indicated that participants held mixed views about the use of social media as a teaching tool. According to this study’s findings, teachers’ beliefs about the use of social media were impacted by their disciplines. The barriers
reported by participants to integrate social media into instruction were: (a) online identity related to teacher and student privacy, (b) teacher availability to students 24 hours a day/7 days a week, and (c) copyright and intellectual property rights issues. The benefits were: (a) student involvement with the community at large, (b) a learning community among students, (c) co-creation of student work, (d) meaningful class participation, and (e) enhancement of students’ writing skills.

The study demonstrated the significance of taking the time to build relationships to create a sense of community among group members. Collegial support and trust allowed for more in-depth conversations and insights about teaching from a cultural perspective and the use of social media as a teaching tool. This supportive collegial atmosphere can also contribute to the inclination to feel free to share, question, and clarify issues related to study group discussion topics.

Although research on teacher beliefs is not new (Pajares, 1992), relatively few researchers have examined the relationship between teachers’ teaching beliefs and their classroom uses of technology. Future research could add to this study by expanding the examination of teacher beliefs in other subject or academic areas to analyze the relationship between teacher beliefs and social media use. A clear understanding of this relationship may yield results to better understand underlying teacher beliefs to facilitate or support new technologies for student learning, collaboration and achievement.
Appendix A
Mock-Up Class Assignment Activity

Mock-up class assignment instructions:

1. State class assignment title.

2. State learning objective(s) for assignment.

3. Choose one or more of the CREDE Standards, which is related to your learning objective and identify a learning activity.

   Please refer to the PowerPoint presentation given at session 3 and the information related to each of the Standards.

4. Choose a social media tool to facilitate your learning activity.

5. Present your Mock-Up Assignment at the next session and share your reflection and insights about your assignment with the group.

Written Reflection

Please reflect on your class assignment and write about your thoughts or beliefs about the CREDE Standard(s) chosen for your assignment.

Please explain whether the CREDE Standards were helpful or not helpful in assisting you to think about how students would use social media in your course assignment.
Class Assignment Title:

________________________________________________________________________

Learning Objective:

________________________________________________________________________
________________________________________________________________________

CREDE Standard(s):

________________________________________________________________________
________________________________________________________________________

Learning Activity:

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Social Media:

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
Appendix B  
Teacher Beliefs About Teaching & Social Media Survey

Please respond to each item in Parts A and B.

**Part A Instructions:**
Please circle the most appropriate number for each statement, which corresponds most closely to your desired response. (1 = strongly disagree, 2 = disagree, 3 = uncertain, 4 = agree, 5 = strongly agree). Thank you for your time and consideration.

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Uncertain</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The teacher should design instructional activities requiring student collaboration to develop a joint product.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. The teacher should predominately organize the classroom into small groups for students to engage in peer interaction.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. The teacher should participate with students in joint productive activity and provide multiple forms of assistance.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. The teacher should spend most of the class time teaching students as one whole group.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. The teacher should encourage learning from peers through collaborative tasks.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. Teachers should provide opportunities for students to interact socially (e.g. small talk, chit-chat).</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7. Teachers should provide opportunities for students to practice writing in academic</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
conventions (e.g., academic vocabulary, writing styles).

<table>
<thead>
<tr>
<th>8. The teacher should continuously engage in a cycle of assessing, assisting, and assessing, in order to develop students’ language and literacy skills.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
</table>

9. The teacher should make learning meaningful, which is best done by connecting new instruction to prior school knowledge.

<table>
<thead>
<tr>
<th>9. The teacher should make learning meaningful, which is best done by connecting new instruction to prior school knowledge.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
</table>

10. The teacher should assist students in making meaningful, personal, and cultural connections to the learning material.

<table>
<thead>
<tr>
<th>10. The teacher should assist students in making meaningful, personal, and cultural connections to the learning material.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
</table>

11. The teacher should use lessons that are highly contextualized within what students already know from their home and community experiences, in order to develop abstract conceptual understandings.

<table>
<thead>
<tr>
<th>11. The teacher should use lessons that are highly contextualized within what students already know from their home and community experiences, in order to develop abstract conceptual understandings.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
</table>

12. The teacher should contextualize lessons by using materials that are familiar to students.

<table>
<thead>
<tr>
<th>12. The teacher should contextualize lessons by using materials that are familiar to students.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
</table>

13. The teacher should respond to students’ comments by connecting personal experiences to academic content.

<table>
<thead>
<tr>
<th>13. The teacher should respond to students’ comments by connecting personal experiences to academic content.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
</table>

14. The teacher should design activities so students make connections between what they are learning and what they already know from their homes or communities.

<p>| 14. The teacher should design activities so students make connections between what they are learning and what they already know from their homes or communities. | 1 | 2 | 3 | 4 | 5 |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>15. The teacher should guide conversations to include students’ views, judgments, and rationales.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>16. The teacher should assess and assist students as they use thinking strategies.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>17. The teacher should allow students to work independently when working on complex tasks.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>18. The teacher should contextualize lessons with the purpose of developing students’ abstract or conceptual understandings.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>19. The teacher should ensure most activities develop abstract and conceptual understandings.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>20. The teacher should primarily have students review and recall information during instruction.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>21. The teacher should facilitate small group conversations so that the students talk at a higher rate than the teacher.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
### Part B Instructions

Please circle one response for each statement.

<table>
<thead>
<tr>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>22. The teacher should not expect students to talk or attempt to elicit student speech, but rather allow the students to talk if they desire.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>23. The teacher should have a clear academic goal that guides conversation with students and provides assistance towards the achievement of that goal.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>24. The teacher should regularly hold goal-directed conversations with small groups of students so student can talk about and exchange ideas on academic topics.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>25. The teacher should assist students’ learning throughout classroom conversations, by questioning, restating, praising, and encouraging.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Social Media</th>
<th>Never</th>
<th>Occasionally (1 or 2 times)</th>
<th>Sometimes (one to three times a month)</th>
<th>Weekly</th>
<th>Daily</th>
</tr>
</thead>
<tbody>
<tr>
<td>1a. Facebook</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>1b. Twitter</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>1c. Blog</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>1d. 'Imiloa</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>1e. Instagram</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Social Media</th>
<th>Not at all</th>
<th>To a small extent</th>
<th>To a moderate extent</th>
<th>To a great extent</th>
<th>Not Sure</th>
</tr>
</thead>
<tbody>
<tr>
<td>2a. Facebook</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>0</td>
</tr>
</tbody>
</table>

88
Thank you for completing the survey!

<table>
<thead>
<tr>
<th></th>
<th>Not at all</th>
<th>To a small extent</th>
<th>To a moderate extent</th>
<th>To a great extent</th>
<th>Not Sure</th>
</tr>
</thead>
<tbody>
<tr>
<td>2b. Twitter</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>2c. Blog</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>2d. ‘Imiloa</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>2e. Instagram</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>0</td>
</tr>
</tbody>
</table>

3. To what extent do you believe the following social media can help students learn from each other?

<table>
<thead>
<tr>
<th></th>
<th>Not at all</th>
<th>To a small extent</th>
<th>To a moderate extent</th>
<th>To a great extent</th>
<th>Not Sure</th>
</tr>
</thead>
<tbody>
<tr>
<td>3a. Facebook</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>3b. Twitter</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>3c. Blog</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>3d. ‘Imiloa</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>3e. Instagram</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>0</td>
</tr>
</tbody>
</table>

4. To what extent do you believe the following social media can help students conduct collaborative tasks (e.g., group work, group projects)?

<table>
<thead>
<tr>
<th></th>
<th>Not at all</th>
<th>To a small extent</th>
<th>To a moderate extent</th>
<th>To a great extent</th>
<th>Not Sure</th>
</tr>
</thead>
<tbody>
<tr>
<td>4a. Facebook</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>4b. Twitter</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>4c. Blog</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>4d. ‘Imiloa</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>4e. Instagram</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>0</td>
</tr>
</tbody>
</table>
## Appendix C

### Pre- and Post-Survey Mean Scores

<table>
<thead>
<tr>
<th>CREDE Standard</th>
<th>Pre Survey Mean</th>
<th>Post Survey Mean</th>
<th>Pre/Post Mean Change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Joint Productive Activity</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. The teacher should design instructional activities requiring student collaboration to develop a joint product.</td>
<td>3.5</td>
<td>4.0</td>
<td>0.5</td>
</tr>
<tr>
<td>2. The teacher should predominately organize the classroom into small groups for students to engage in peer interaction.</td>
<td>3.3</td>
<td>3.5</td>
<td>0.2</td>
</tr>
<tr>
<td>3. The teacher should participate with students in joint productive activity and provide multiple forms of assistance.</td>
<td>4.0</td>
<td>4.16</td>
<td>0.16</td>
</tr>
<tr>
<td>4. The teacher should spend most of the class time teaching students as one whole group.*</td>
<td>3.5</td>
<td>3.5</td>
<td>0</td>
</tr>
<tr>
<td>5. The teacher should encourage learning from peers through collaborative tasks.</td>
<td>3.83</td>
<td>4.0</td>
<td>0.17</td>
</tr>
<tr>
<td>6. Teachers should provide opportunities for students to interact socially (e.g. small talk, chit-chat).</td>
<td>4.3</td>
<td>3.5</td>
<td>-0.8</td>
</tr>
<tr>
<td><strong>Language and Literacy Development</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Teachers should provide opportunities for students to practice writing in academic conventions (e.g., academic vocabulary, writing styles).</td>
<td>4.17</td>
<td>4.5</td>
<td>0.33</td>
</tr>
<tr>
<td>8. The teacher should continuously engage in a cycle of assessing, assisting, and assessing, in order to develop students’ language and literacy skills.</td>
<td>3.83</td>
<td>4.50</td>
<td>0.67</td>
</tr>
<tr>
<td><strong>Contextualization</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. The teacher should make learning meaningful, which is best done by connecting new instruction to prior school knowledge.</td>
<td>4.17</td>
<td>4.33</td>
<td>0.16</td>
</tr>
<tr>
<td>10. The teacher should assist students in making meaningful, personal, and cultural connections to the learning material.</td>
<td>5.0</td>
<td>5.0</td>
<td>0</td>
</tr>
<tr>
<td>11. The teacher should use lessons that are highly contextualized within what students already know from their home and community experiences, in order to develop abstract conceptual understandings.</td>
<td>4.17</td>
<td>4.50</td>
<td>0.33</td>
</tr>
<tr>
<td>12. The teacher should contextualize lessons by using materials that are familiar to students.</td>
<td>3.83</td>
<td>4.50</td>
<td>0.67</td>
</tr>
<tr>
<td>13. The teacher should respond to students’ comments by connecting personal experiences to academic content.</td>
<td>4.17</td>
<td>4.33</td>
<td>0.16</td>
</tr>
<tr>
<td>14. The teacher should design activities so</td>
<td>4.33</td>
<td>4.33</td>
<td>0</td>
</tr>
</tbody>
</table>
students make connections between what they are learning and what they already know from their homes or communities.

<table>
<thead>
<tr>
<th>CREDE Standard</th>
<th>Pre Survey Mean</th>
<th>Post Survey Mean</th>
<th>Pre/Post Mean Change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Complex Thinking</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. The teacher should assess and assist students as they use thinking strategies.</td>
<td>4.5</td>
<td>4.6</td>
<td>0.1</td>
</tr>
<tr>
<td>16. The teacher should allow students to work independently when working on complex tasks.</td>
<td>4.16</td>
<td>4.60</td>
<td>0.44</td>
</tr>
<tr>
<td>17. The teacher should contextualize lessons with the purpose of developing students' abstract or conceptual understandings.</td>
<td>3.5</td>
<td>4.0</td>
<td>0.50</td>
</tr>
<tr>
<td>18. The teacher should ensure most activities develop abstract and conceptual understandings.</td>
<td>3.6</td>
<td>4.3</td>
<td>0.7</td>
</tr>
<tr>
<td>19. The teacher should primarily have students review and recall information during instruction.*</td>
<td>2.16</td>
<td>2.16</td>
<td>0</td>
</tr>
<tr>
<td><strong>Instructional Conversation</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20. The teacher should guide conversations to include students' views, judgments, and rationales.</td>
<td>2.8</td>
<td>3.3</td>
<td>0.5</td>
</tr>
<tr>
<td>21. The teacher should facilitate small group conversations so that the students talk at a higher rate than the teacher.</td>
<td>2.8</td>
<td>3.8</td>
<td>1.0</td>
</tr>
<tr>
<td>22. The teacher should not expect students to talk or attempt to elicit student speech, but rather allow the students to talk if they desire.*</td>
<td>3.66</td>
<td>3.16</td>
<td>-0.5</td>
</tr>
<tr>
<td>23. The teacher should have a clear academic goal that guides conversation with students and provides assistance towards the achievement of that goal.</td>
<td>3.8</td>
<td>4.0</td>
<td>0.2</td>
</tr>
<tr>
<td>24. The teacher should regularly hold goal-directed conversations with small groups of students so student can talk about and exchange ideas on academic topics.</td>
<td>3.8</td>
<td>3.8</td>
<td>0</td>
</tr>
<tr>
<td>25. The teacher should assist students' learning throughout classroom conversations, by questioning, restating, praising, and encouraging.</td>
<td>4.5</td>
<td>4.8</td>
<td>0.3</td>
</tr>
</tbody>
</table>

Note: * = Reversely Coded
References


Franklin, T., & Van Harmelen, M. (2007). Web 2.0 for content for learning and teaching in higher education. JISC.


