EXPLORING COMMUNITY IN AN ONLINE DOCTORAL PROGRAM: A DIGITAL CASE STUDY

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A Dissertation Presented to the
FACULTY OF THE USC GRADUATE SCHOOL
UNIVERSITY OF SOUTHERN CALIFORNIA

In Partial Fulfillment of the
Requirements of the Degree

DOCTOR OF PHILOSOPHY
(Urban Education Policy)

May 2017

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Dedication

I would like to dedicate this work to my ancestors. Throughout this PhD process, I drew upon memories of the strength, courage and candor of the strong Black women who came before me.

I dedicate this work to:

My great grandmother, Charlotte Pierson, who instilled in me a love of reading and a fierce imagination.

My grandmother, Eulala Carothers Berry, whose love for learning and spirit of striving lives in me.

My mother, Vicki Phillips, who taught me always to serve my community and to fight fiercely for myself and for others.

My grandmother, Elois Phillips, who has been a living example of grace.

I also dedicate this work to my nieces, Baylee, Reign and KaliDream Miles, whose love, laughter and black girl joy remind me of things worth fighting for.

Acknowledgements

I am humbled and encouraged by the blessings that my Lord and Savior Jesus Christ has extended to me during the process of completing the PhD. God's grace has been sufficient for every challenge, and I am grateful.

I would like to thank my committee – Drs. Sarah Banet-Weiser, Tatiana Melguizo and Melora Sundt for their support and encouragement throughout this process.

I would like to acknowledge my mother, Vicki Phillips, for her support throughout the PhD process. Thank you for encouraging me to keep going.

I would also like to acknowledge my grandmother, Elois Phillips, for her constant encouragement. You have taught me about what it means to keep the faith.

Thank you to Dr. Jesse Watson, for your support.

To the members of First AME Church, the faculty and staff at St. Timothy School, and to my friends in the Student Success Center at Mount Saint Mary's University, thank you for the encouragement and investment in my dreams.

Abstract

Over the past decade, enrollment in online education programs has increased rapidly, with the fastest area of growth occurring at the graduate level (Lederman, 2014). Currently, 25% of graduate students are in fully online programs (Allen & Seaman, 2015), a figure that is expected to grow by nearly 20% over the next decade (Lederman, 2014). There are no national statistics on attrition from online programs, but researchers estimate that attrition may be significantly higher than in on-ground programs (DiRamio & Wolverton, 2006).

The causes of attrition in graduate programs are many, but surveys of online students have revealed that feelings of isolation and lack of academic support are associated with attrition from academic programs (Ke & Hoadley, 2009). At the same time, research suggests that a sense of community can be a protective factor against attrition from higher education (Tinto, 1997). However, community, defined as feelings of connection, belongingness and mutual support with peers and instructors, has been underexplored in the literature on online education (Rovai, 2003). In this qualitative case study I utilized data from three sources -- video footage from six classes, message boards from six classes, and interviews with 20 students to learn about how online doctoral students define and create community. Findings indicated that students in the doctoral program under study felt strong feelings of community, which they defined as connection and mutual support from peers. Data from student interviews and observations of the synchronous and asynchronous components of the online classroom indicated that four factors --- 1) a residential orientation, 2) a robust technical platform, 3) instructors who facilitated teaching, cognitive, and social presence, and 4) the students' positive attitudes

toward the online experience contributed to students' sense of community in the online doctoral program. The findings of this study have implications for research and practice in online environments, and researchers and practitioners can use this data to design programs that engage and retain more online students.

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Chapter 1: Overview of the Study

Over the past three decades, online education has expanded rapidly (Allen & Seaman, 2015). According to the US Department of Education (2016a), 32% of American college students have taken an online course, and 25% are enrolled in a fully online program. Online programs hold great potential for students, universities, and society at large (Moore, 2013). For students, online programs can provide opportunities to access education from remote locations. Online programs can also provide students with the opportunity to access education asynchronously, allowing students to tailor coursework to work schedules or other responsibilities (Moore, 2013). For universities, online programs can provide opportunities to serve more students and to increase revenue (Selingo, 2016). For society, online programs can expand access to higher education, improve human capital and increase global competiveness (Allen & Seaman, 2015).

Despite the potential of online programs to expand access to higher education, online education faces a major challenge -- student attrition (Angelino, Williams & Natvig, 2007). Attrition from postsecondary online programs ranges from 30-70% (Burnsed, 2011). By contrast, attrition from postsecondary face-to-face programs ranges from 20-50% (US Department of Education, 2016b). There are many reasons for attrition in online programs (Rovai, 2003). Students, especially those with limited experience learning online, may face many challenges, including adjusting to the online environment, navigating college at a distance, developing and maintaining academic and social support networks, balancing work and academic demands, and managing the increasing cost of higher education (Angelino et al., 2007; Ivankova & Stick, 2007; Rovai, 2003; Stubb, Pyhältö, & Lonka, 2011).

Research by Rovai (2003) and others suggests that a sense of community can be a protective factor against attrition in online education settings (Conrad, 2005; Ouzts, 2006; Tinto, 1997). McMillan and Chavis (1986) define community as "a feeling that members have of belonging, a feeling that members matter to one another and to the group, and a shared faith that members' needs will be met through their commitment to be together" (p. 9). In a learning community, participants have a shared goal, provide academic and social support to members, and work together to create learning artifacts or products and feel a sense of belonging (Lai, 2015). In this qualitative case study I explore student experiences in building community in one online doctoral program.

The concept of community is not binary (Carlen & Jobring, 2005; Ke & Hoadley, 2009). While some researchers have defined community membership as either being totally inside or totally outside of a group, others have noted that there are different types of community membership (Carlen & Jobring, 2005). Analysts of social networks note that not all members of a community play the same role, and most communities include central, marginal and peripheral players (Dawson, 2008). Peripheral participation may happen voluntarily, such as when a student chooses to take a less active role in community due to external constraints including work and family demands (Bean & Metzner, 1985; Rovai, 2003). Solorzano, Ceja and Yosso (2000) have found that marginalization in academic communities is often gendered and racialized. Students from diverse backgrounds, including women and underrepresented racial/ethnic minorities may experience microaggressions, discrimination and overt harassment in academic environments, which can undermine these students' sense of community (Gay, 2004; Harper and Hurtado, 2007; Pierce, 1995; Solorzano et al., 2000).

Developing a sense of community can have academic and social benefits for students, both in online and on-campus programs (Lai, 2015; Lovitts, 2001; Rovai, 2003). Academically, feelings of membership in a supportive community are associated with increased classroom participation, academic engagement and deep learning (Garrison, Anderson & Archer, 2010; Tinto, 1997). Socially, a sense of community is associated with decreased isolation, an increased ability to manage stress and greater overall emotional well-being (Pyhältö, Stubb, & Lonka, 2009; Stubb, Pyhältö, & Lonka, 2011). Students who experience marginalization within the primary academic community may receive social, emotional and academic support from a subcommunity of peers. Gay (2004), Patton and Harper (2003), and others have found that supportive subcommunities are beneficial for underrepresented minorities and first generation students. The benefits of membership in a learning community have been associated with academic success, psychological well-being and increased persistence in higher education (Rovai, 2003).

Statement of the Problem

Despite its' benefits, researchers are unclear about how online students construct community (Dawson, 2008; Rovai, 2003). There is a dearth of research on how student characteristics, instructor practices, program structures, institutional offerings and technical factors may help online students develop a sense of community (Ke & Hoadley, 2009). The largest gap in the research is at the doctoral level (Conrad, 2005). There are virtually no studies that explore how students construct community in the unique contexts of online doctoral programs (Bollinger & Halupa, 2012). This study will conduct such an exploration.

Extant data suggests that online doctoral students may face challenges constructing community. Attrition in on-campus doctoral programs is estimated to be about 50% (King, 2008), compared to 20% in on-campus undergraduate programs at four-year public institutions. While there are no numbers specifically on online doctoral students' attrition, researchers have theorized that these rates are also high, due to the challenges associated with the doctoral experience generally and the online experience in particular (Bollinger & Halupa, 2012; Kumar & Dawson, 2012; Rovai, 2003). Attrition causes stress for students and results in lost revenue for institutions (Allen & Seaman, 2015; Lovitts, 2001). Given data on the high attrition rate in traditional doctoral programs and data on the high attrition rate of online students (Burnsed, 2011), researchers should begin to explore the experiences of students in online doctoral programs. This dissertation is a qualitative case study that explores online doctoral students' experiences with community. By understanding how students in this subpopulation construct community, researchers and practitioners can begin to design online doctoral programs that enhance students' experiences and improve persistence.

Purpose of the Study

The purpose of this study is to explore the student-level, classroom-level, program-level and technical factors that contribute to online doctoral students' sense of community. This study is driven by three research questions:

1) How do online doctoral students define and experience community?

2) How do elements of a Community of Inquiry, including teaching presence, social presence and cognitive presence manifest in online doctoral classes? How do these elements impact online doctoral students' sense of community?

3) What student, program, institutional and technical factors contribute to students' sense of community in an online doctoral program?

Description of the study

In this qualitative case study I used the theory of persistence in distance education programs (Rovai, 2003) and the Community of Inquiry theoretical framework (Garrison et al., 2010) to answer the aforementioned questions. In using case study methods I was able to draw upon data from multiple qualitative sources to capture participants' perspectives on their experiences in an online program (Merriam, 2014). The case study was centered on students' experiences in an online Doctorate in Education Program at the University of the West (pseudonym). Data for the study was drawn from three sources -- the video footage of six online courses, the message boards from these courses and interviews with 20 students in the program. Gathering data from the online classrooms yielded information about the instructor practices and peer interactions that impacted students' experiences in the online classes. Interviewing students provided insight into how extracurricular activities and interpersonal interactions outside of the classroom promoted feelings of membership, belonging and closeness. Multiple data points were used to create a complex and multifaceted picture of the student, classroom, institutional and technical factors that impacted students' sense of community in one online doctoral program.

Significance of the Study

This dissertation fills several theoretical and methodological gaps in the literature. By creating a rich understanding of the supports and barriers to forming community in an online doctoral program, this case study advances theory on community building in

online programs. By utilizing digital sources not typically used in online research, including video footage from online classrooms, this study provides a methodological contribution to the study of online programs (Black, Dawson & Priem, 2008). Finally, by outlining the supports and barriers to online community, this case study can provide support to practitioners seeking to improve student satisfaction and retention in online programs.

In the chapters that follow I review the relevant literature, explain my theoretical framework, and outline my methods and data analysis procedures. I then outline my findings on how students constructed community in one online doctoral program. I conclude with an analysis of the implications of these findings.

Definition of Key Terminology

Community - A learning community refers to a group of students in a formal setting who feel a sense of connectedness and belonging (Ouzts, 2006). In a learning community, participants have a shared goal, provide academic and social support to members, and work together to create learning artifacts or products and feel a sense of belonging (Lai, 2015; Rovai, 2002; Schlossberg, 1989; Yuan & Kim, 2014).

Learning management system (LMS)- An integrated web platform which houses the collaboration tools used for course content (e.g. message boards and video conferencing systems) as well as student management tools (e.g. grades, rosters and course calendars) (Chapman, 2009). Instructors can use learning management systems to teach classes, administer tests, store data and communicate with students (Chapman, 2009).

Student support services – Programs and departments at an institution that deliver services and provide resources to support students' academic, social and emotional

success. These services can include enrollment management services (e.g. admissions and financial aid), academic support services (e.g. tutoring, career counseling and disability support), social and emotional support services (e.g. psychological counseling) and services that help students integrate into the institution at large (e.g. student government, student activities and social programming) (Kretovics, 2002).

Synchronous- occurring in real time.

Chapter 2: Literature Review and Conceptual Frameworks

The concept of community has been studied in many fields and disciplines (DuFour, 2004; Putnam, 1995; Rovai, 2003; Zinn, 2014). Researchers have explored the psychological, sociological and organizational dimensions of communities (Kramer & Tyler, 1995; McMillan & Chavis, 1986; Putnam, 1995), factors that contribute to withdrawal from communities (Durkheim, 1951; Tinto, 1997), and the formation of sub-communities based on affinities, professional interests and cultural identity (Boyd, 2010; Gardner, 2009; Lave & Wenger, 2004). I begin this chapter by briefly exploring how the concept of community has been studied across the literature. I then explore the benefits of participating in a learning community and the supports for and barriers to developing a learning community in online and face-to-face environments. I follow by identifying the gaps in the literature related to my topic of community building in online doctoral programs. After surveying the literature and the gaps in the literature, I review the theoretical framework for my study. I conclude by explaining how I draw upon two theoretical frameworks, Garrison, Anderson and Archer's (2001) Community of Inquiry (COI) Framework and Rovai's (2003) theory of persistence in distance education programs, to generate an ecological conceptual framework for the study.

Defining Community

Community has been defined in many ways in the social science literature (Rovai, 2002; Schlossberg, 1989; Yuan & Kim, 2014). Early definitions come from historians and sociologists, who typically defined community as a group of people living in the same area (e.g., city, state, nation) (Putnam, 1995; Zinn, 2014). Researchers in the disciplines of history and sociology focused on exploring community in terms of physical boundaries and feelings of connection and closeness within these boundaries (Putnam,

1995; Zinn, 2014). Sociologists, ethnic studies theorists and organizational researchers have expanded definitions of membership in community to focus on feelings of closeness developed by common interests (e.g., artists' communities, gaming communities), shared characteristics (e.g., race, gender) and shared goals (e.g., learning a skill, completing a degree program) (Ke & Hoadley, 2009; Lave & Wenger, 2004; Patton & Harper, 2003). Across the disciplines, communities are characterized by shared characteristics, strong, positive relations, group cohesion and shared participation (Parker, 2009; Schlossberg, 1989; White & Nonnamaker, 2008).

While the literature tends to focus on the supportive aspects of community, communities may not provide support for all members. Most communities are based on shared interests and characteristics, as well as adherence to certain norms. If one falls outside of those norms, whether for identity-based characteristics (e.g. race, gender, sexual orientation) or for behaviors that somehow differ from the majority of individuals in the group, they may face marginalization or total exclusion from a community.

Education researchers have tended to focus on the affective characteristics of inclusive learning community (Rayle & Chung, 2007). In *Marginality and Mattering*, Schlossberg (1989) defines community as a place where participants develop feelings of membership and mutual support. Drawing on Schlossberg's (1989) definition, Yuan and Kim (2014) identify four social-emotional elements necessary for individuals in a group to develop a sense of community – membership, influence, and fulfillment of needs and shared emotional connection. Membership refers to the feeling that one belongs to a group (Yuan & Kim, 2014). Influence is the feeling that one's membership matters to the group members, and that one can effect change in the group (Yuan & Kim, 2014).

Fulfillment of needs refers to the feeling that the group provides support for its members' individual and shared goals (Yuan & Kim, 2014). A shared emotional connection is a feeling that one has relationships with group members where positive feelings are reciprocated (Yuan & Kim, 2014). Drawing on these and other definitions, I define a learning community as an activity center where students have feelings of membership and receive social, emotional, academic or professional support (Ke & Hoadley, 2009; Lai, 2015; Yuan & Kim, 2014).

Online Community

Historically, researchers studying community have focused on how communities are formed amongst people in close proximity to each other (Chapman, 2009; Crosslin, 2009). However, the growth in information and communications technologies such as the Internet, email and broadband have made it easier to connect individuals who are geographically separated (Rheingold, 1993). Technology has enabled the rise of virtual communities, which are networks of people who provide support over the Internet (Rheingold, 1993; Warschauer, 2004). Virtual communities share many of the social characteristics of face-to-face communities. Like their on-the-ground counterparts, online communities are defined by trust, reciprocity and active participation (Lee & Choi, 2011; Rheingold, 1993). Participants in online communities receive academic, social and emotional benefits from their membership (Chapman, 2009). The primary characteristic that sets online communities apart from face-to-face communities is that the bulk of interactions are mediated by technology. In online communities, members can meet via the Internet or other web applications and virtual platforms. The boundaries in online communities vary widely. While some carry out all of their functions online, others

operate in a more blended matter, with members meeting on and offline. Carlen & Jobring (2005) identify three types of online communities – interest, professional and educational. In the paragraphs that follow, I define each type of community.

Online Interest Communities

An online interest community (OIC) is a virtual space where members connect based on affinity (Carlen & Jobring, 2005). Any interest can spawn the development of an online interest community (Carlen & Jobring, 2005). Common topics for online interest communities include video games, sports, hobbies, music and health (Armstrong & Hagel, 2000). Online interest communities have many purposes. Communities may exist to share information about a particular topic, create a space for collaboration, display creative work or give and receive support (Armstrong & Hagel, 2000). The support offered in online interest communities may be task specific (e.g. learn a video game), categorical (e.g. weight loss strategies) or psychological (e.g. grief counseling) (Carlen & Jobring, 2005). Boundaries in online interest communities may be tight, and restricted to paid members or individuals in a particular group, or loose, and open to a wide range of Internet users (Armstrong & Hagel, 2000).

Online Professional Communities

An online professional community is a virtual space where the purpose is to share knowledge based on work and work-related tasks (Carlen & Jobring, 2005; Kim, 2000). Online professional communities serve as a space for individuals to connect with others in the field, share expertise and access information specific to the field (Carlen & Jobring, 2005). Content shared in online professional communities may include job listings, professional development opportunities (e.g. books, conferences, educational

opportunities) and current events related to the field (Carlen & Jobring, 2005). Online professional communities may be formal, such as communities for members of associations, or informal, and open to anyone interested in the field (Kim, 2000).

Communities of Practice

Anthropologists Lave and Wenger (1998) developed the term community of practice to refer to groups of professional experts who are seeking to develop in their field. Unlike other professional communities, which may be comprised of novices and experts, and of causal and active members, members of a communities of practice are typically highly skilled individuals who are seeking to collaborate with other experts to improve their professional skills (Lave & Wenger, 1998). Communities of practice are characterized by mutual engagement (i.e. the process of collaboration and relationship building), joint enterprise (i.e. development of shared meaning) and the development of a shared repertoire of communal resources (Lave & Wenger, 1998). Members of communities of practice seek to develop new skills and information that advances their skills and improves practice in the field (Lave & Wenger, 1998).

Online Education Communities

In online interest communities and in online professional communities, learning takes place through the exchange of information (Rovai, 2003). Carlen and Jobring (2005) use the term online education community (sometimes called online learning community) to refer to the virtual communities that develop in formal primary, secondary and postsecondary academic programs. Online educational communities are characterized by their formal structure and by their function, which is typically to grant degrees or certificates (Carlen & Jobring, 2005). Participants in an online learning

community have shared goals and work together to generate ideas and create learning artifacts (Lai, 2015). Groups of learners in online academic programs do not necessarily constitute online educational communities (Carlen & Jobring, 2005; Rovai, 2003). For an online educational space to be a community, members must provide academic and social support to each other (Carlen & Jobring, 2005; Lai, 2015).

The Benefits of Community

A sense of community has academic and social benefits for students, both in online and on-the-ground programs (Lai, 2015; Lovitts, 2001; Rovai, 2003). Academically, community is associated with increased classroom participation, academic engagement and deep learning (Garrison, Anderson & Archer, 2010; Tinto, 1997). Socially, community is associated with decreased isolation, an increased ability to manage stress and greater overall emotional wellbeing (Pyhältö, Stubb, & Lonka, 2009; Stubb, Pyhältö, & Lonka, 2011). A sense of community may also positively impact students' persistence decisions in higher education (Tinto, 1997).

Academic Benefits of Community

Researchers have long argued that a sense of community has positive impacts on undergraduate students' academic performance (Tinto, 1997). In *Classrooms as Communities*, Tinto (1997) writes that the more connected students feel to instructors and peers, "the greater their acquisition of knowledge and development of skills (p.600)." Tinto (1997) asserts that strong interpersonal connections are driven by positive interactions with instructors, collaborative engagement with peers and feelings of belongingness and support within the academic environment. When students feel they are a part of a community, they will build and maintain academic systems that support

learning outside of the classroom, such as study groups (Tinto, 1997). In these spaces, students can give and receive support for dealing with school, work and life-related challenges (Parker, 2009; Stubb et al., 2011). In his work on online graduate students, Rovai (2003) found that students who feel they are a part of a community are more likely to participate in class and in school-related social activities, and are more likely to persist in higher education than their more socially isolated peers.

Social Benefits of Community

In a survey of 28,000 graduate and undergraduate students, Wyatt and Oswalt (2013) found that 55% of graduate students felt levels of stress that were "tremendous" and "greater than average," and 27% felt depressed. A survey of PhD candidates conducted at the University of California, Berkeley (2015) found that 45% of these students experienced frequent feelings of depression and anxiety. Doctoral students attributed feelings of depression and anxiety to school-related pressures including a lack of academic support, a declining job market, and poor social support from advisors and peers (Berkeley, 2015).

In a survey of nearly 700 PhD students, Stubb et al. (2011) found that a sense of community can act as a buffer against feelings of stress, anxiety, isolation and burnout. Drawing on that same data, Pyhältö et al. (2009) found that feelings of membership in a community can be a source of empowerment for emotionally overwhelmed students, and can help them manage stress and exhaustion. Stubb et al. (2011) and Pyhältö et al. (2009) found that students who felt they were in a community received psychological benefits from their membership, including encouragement, inspiration, academic assistance and emotional support.

Marginalization in Learning Communities

Learning communities are not value neutral (Hurtado, 1992). Instead, learning communities often reflect the norms, beliefs and biases of the larger society (Harper & Hurtado, 2007). As a result, students of underrepresented racial, ethnic, religious and philosophical backgrounds may be marginalized, isolated or excluded from learning communities (Solorzano, Ceja & Yosso, 2000). Underrepresented students from diverse backgrounds may encounter a range of barriers that may undermine their sense of connection to a learning community, ranging from covert microaggressions to overt harassment, discrimination and exclusion (Gay, 2004; Rovai, 2003). Harper and Hurtado, (2007); Pierce, (1995) and Solorzano et al., (2000) have found that women, lesbian, gay, bisexual and transgender (LGBT) students and racial minorities are more likely to have experienced isolation and marginalization in learning communities than their white, male counterparts.

Gendered and racialized discrimination in learning communities have led some scholars to describe the experiences of underrepresented students in the academy as "the outsider within" (Collins, 1986; Patton & Harper, 2003). This term refers to the peripheral role that minoritized and marginalized members may be forced to play in learning communities (Collins, 1986). Underrepresented and minoritized students may have varied responses to marginalization within the academy (Hinton, 2009; hooks, 1990). For some students, feelings of marginalization may lead to depression, anxiety and withdrawal from the institution (Pyhältö, Stubb, & Lonka, 2009; Stubb, Pyhältö, & Lonka, 2011). For others, these feelings may prompt them to develop supportive sub-communities for individuals with shared backgrounds, experiences and perspectives.