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Community on Campus: The Role of Physical Space

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This dissertation, COMMUNITY ON CAMPUS: THE ROLE of PHYSICAL SPACE, by KIM DOLORES HARRINGTON, was prepared under the direction of the candidate's Dissertation Advisory Committee. It is accepted by the committee members in partial fulfillment of the requirements of the Doctor of Philosophy in the College of Education, Georgia State University.

The Dissertation Advisory Committee and the student's Department Chair, as representatives of the faculty, certify that this dissertation has met all standards of excellence and scholarship as determined by the faculty. The Dean of the College of Education concurs.

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ABSTRACT

COMMUNITY ON CAMPUS: THE ROLE OF PHYSICAL SPACE
by
Kim D. Harrington

The physical environment of a college campus provides the context for learning and
social interactions. These interactions lead to involved students, which help build
community, and vibrant communities on college campuses contribute to student
persistence and academic success (Kuh, Cruce, Shoup, Kinzie & Gonyea, 2008; Palmer,
Maramba & Dancy, 2011; Strange & Banning, 2001; Tinto & Goodsell - Love, 1993).
The purpose of this study was to explore the role of physical space on student
involvement and community. The methodology was ethnography and the methods of data
collection included photo elicitation and semi - structured interviews. This qualitative
study presents the visual and interview data from 9 participants enrolled at a research
university in the South. The student participants reported that they developed meaningful
connections with their peers through interactions in outdoor spaces, student organization
offices, academic facilities and recreational areas. The participants felt that many of the
physical spaces encouraged interaction and helped to facilitate campus involvement. The
findings of this work indicate that the natural and built environments at this university
influenced how students discovered, built, and sustained community.

COMMUNITY ON CAMPUS: THE ROLE OF PHYSICAL SPACE
by
Kim D. Harrington

A Dissertation

Presented in Partial Fulfillment of Requirements for the
Degree of
Doctor of Philosophy
in
Educational Psychology
in
the Department of Educational Psychology and Special Education
in
the College of Education
Georgia State University

Atlanta, GA
2013

DEDICATION

This work is dedicated to my parents, Arthur Francis Harrington, and Diane Evans Harrington. I have been indelibly impacted by your unconditional love, support and encouragement. I love you both so much.

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Now to him who is able to do immeasurably more than all we ask or imagine, according to his power that is at work within us (Ephesians 3:20).

Completion of this dissertation is the direct result of the encouragement and support I received from my family, friends, faculty, students, and colleagues. As I reflect on the past few years, I am humbled by the number of people that cheered me on, challenged me to dig deeper, and propelled me forward. I am truly grateful.

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CHAPTER 1

INTRODUCTION

Community is a broad vision for campus life that allows all groups and individuals to
learn and develop to their best potential in a challenging, yet safe environment
(Association of College Unions International, 2008).

Many variables contribute to a student's college experience. In addition to attending

lectures, working in labs, and participating in other formal educational activities,

experience outside of the classroom, including social gatherings and co-curricular

programs, enhances personal development and helps facilitate meaningful connections

with faculty, peers, and the university at large. The amount of time and energy students

devote to these activities is defined as student involvement (Astin, 1999). Varied

involvement opportunities contribute to the quality of student life and create a connection

to the campus; these connections lead to a strong campus community. For those who

attend brick and mortar campuses, the location, layout, and physical structures on campus

provide the environments that influence these experiences.

Campus life is inherently richer when varied opportunities and locations exist for

members of the campus community to interact. Concert halls, athletic arenas, college

unions, residence halls, recreational centers, performance venues, and outdoor spaces

provide students with opportunities to meet and make valuable connections. In my

observations, students use non-academic campus spaces to study alone and in groups,

spend time with friends, and to see and be seen. My research seeks to explore the role

physical space plays in student involvement and community at a public, research

university in the southeast. In this introductory chapter, I define the key terms, outline the value of this study, explain the problem, describe what we currently know about physical space and community, and state the research questions.

Key Terms

The following key terms are defined:

1. Physical space: The facilities, grounds, structures, and additional organizational elements that define the campus (Strange & Banning, 2001).

2. Community: The bond that exists between groups and individuals engaged in a common experience (Lloyd – Jones, 1989). Communities are characterized by a shared purpose, commitment, shared responsibility, relationships, and a sense of inclusion (McDonald & Associates, 2002).

3. Student Involvement: "The amount of psychological and physical energy that the student invests in the academic experience" (Astin, 1999, p. 518). Related activities include studying, faculty and peer interaction and participation in student clubs and organizations.

4. Campus Ecology: "The conceptual framework focused on the dynamic relationship between students and the campus environment (Banning & Bryner, 2001, p.1).

5. Persistence: Continuous student enrollment (Kuh, Kinzie, Buckley, Bridges & Hayek, 2006) that leads to graduation.

Significance of Community

Community and community building are terms that are heavily used within the college and university environment. According to Boyer (1990), 97% of college and university presidents see building community as a fundamental element in college life and believe that more should be done to foster it. Colleges and universities have long had community building as a desired outcome of the undergraduate experience. As a result, higher education administrators consistently seek to engage students and build community through campus activities and programming initiatives.

In a 1990 report for the Carnegie Foundation for the Advancement of Teaching, Ernest Boyer chronicled issues of incivility and individualism on college and university campuses. In the report, Boyer urged higher education administrators to focus on campus community building among students, faculty, and staff to help combat this trend. This seminal work continues to provide the premier framework for community building on many campuses across the country. Boyer's (1990) six principles that characterize effective campus communities are as follows: educationally purposeful, open, just, disciplined, caring, and celebrative.

Active membership in healthy communities has notable social and emotional benefits. In addition to the psychosocial benefits, there is a broad spectrum of research that supports the idea that strong campus communities contribute to student persistence and academic success (Kuh, Cruce, Shoup, Kinzie & Gonyea, 2008; Palmer, Maramba & Dancy, 2011; Tinto & Goodsell-Love 1993). "One of the common features of effective

retention programs is their emphasis on the communal nature of institutional life" (Tinto , 1987, p.7).

The factors that contribute to the development of campus community have also been well documented in higher education research. Involvement in clubs and organizations, and quality services that support their diverse needs, cultivates student connection and attachment to the campus (Cheng, 2005; Nasir & El-Amin, 2006). What is missing is an exploration of the impact of the physical environment on student involvement and community building.

According to Jamieson (2003), a prolific learning space scholar, brick and mortar universities "need spaces designed to generate interaction, collaboration, physical movement and social engagement as primary elements of the student learning experience" (p.121). In a feature article in the Chronicle of Higher Education, Broussard (2009) described the emotional power of physical spaces on campuses by highlighting the memories, meaning making, long-term satisfaction and institutional loyalty that can develop in campus facilities. Broussard commented on the transformational nature of universities and the significance of physical space on students' education and personal development.

The physical environment in higher education is an important, yet under researched topic (Temple, 2007). Currently there is increased interest in learning space research as campuses are beginning to recognize the value of classroom spaces that are flexible, enhance collaboration, and provide greater access to technology (Beichner et al., 2007). University librarians are also exploring how students interact, learn, and the implications for their spaces (Massiss, 2010). Unfortunately, the current learning space research is

focused entirely on academic spaces. The learning and community building activities that takes place in athletic facilities, lobbies and hallways of academic buildings, student unions, outdoor quadrangles, and in other spaces where students gather is not represented in the existing research. Temple (2008) conducted a literature review of higher education learning spaces and discovered that little is known about the influence of physical space on community building, and encourages empirical research in this important area. After a recent search, no study could be identified that explicitly explores the influence of physical space on how students experience community on campus.

Statement of the Problem and Research Questions

The presence of strong academic and social communities is essential for student success in college (Tinto, 1987) and the physical environment is arguably a powerful but understudied variable. This qualitative study fills a gap in the student involvement and campus ecology literature, advances the discussion, and provides visual qualitative data on student perceptions of community and physical spaces on campus. The purpose of this study was to understand the role space plays in student involvement and community on campus. Specifically the following research questions guided this work:

Primary Question: What role does the campus physical environment play in students' experience of community in college?

Secondary Questions

- What are students' experiences of student involvement in campus life?
- What role does the campus physical environment play in students' ability to meet and interact with peers?
- How do students' experience the campus physical environment?

- How do students experience the physical environment as they consider issues of psychological and physical safety?

- How do students experience the physical environment as they consider issues of diversity and inclusion?

Overview

This dissertation is presented in five chapters. In Chapter 2, I review relevant campus community literature and point out the gap that exists related to physical space. In Chapter 3, I outline the research design and present the theoretical framework, epistemology, methodology, selection processes, data collection, data analyses, and ethical considerations. In Chapter 4, I present concepts and themes from participant interviews and images distilled through four phases of data analyses. In Chapter 5, I discuss the findings, suggest practical implications, acknowledge the limitations of this study and propose areas for future research. The appendix includes (a) the timeline, (b) a matrix outlining the focal questions and corresponding methods, (c) responses to the focal questions, (d) participant recruitment correspondence, (e) the interview protocol, (f) the informed consent form, (g) and the research review session script.

CHAPTER 2

REVIEW OF THE LITERATURE

Campus Community

Frequent and meaningful interactions between individuals and groups create strong communities, and the development and maintenance of strong communities is a longstanding core value of colleges and universities in the United States (Kenney, Dumont & Kenney, 2005). The work of Boyer and the Carnegie Foundation (1990) continues to guide community building at many colleges and universities. Boyer's six principles that characterize effective campus communities are as follows:

1. An *educationally purposeful* community has teaching and learning as the primary focus. It is essential that academic goals be achieved through the intentional, pervasive, and collaborative efforts of students and faculty. This quest for intellectual engagement is pursued inside and outside of the classroom.

2. An *open community* affords its members the ability to freely share and exchange ideas. Freedom of expression is encouraged, as are the standards of courtesy, respect, and civility.

3. Individuals are allowed and encouraged to be themselves, and diversity is pursued with vigor in a *just community*. The climate is supportive and all members have a fundamental sense that they belong.

4. In a *disciplined community*, individual responsibilities are clearly outlined and actions are guided by effective governance structures formed for the

common good. Campus codes that speak to the total campus experience are widely communicated, upheld, and regularly re-evaluated by students, administrators, and faculty.

5. Service to others is prioritized and the value of individual members is recognized and appreciated in a *caring community*.

6. Historical traditions and rituals are recognized and balanced by the innovation and change brought about by increased diversity and progression in a *celebrative community*.

Created to define "the enduring values that undergird a community of learning", (Boyer, 1990, p. 7), these concepts provide a framework to consider policies, practices, and activities. Boyer's work also served as a catalyst for additional research and assessment methods related to student life on campus. In 2002, McDonald and Associates reviewed the progress of several campuses that adopted Boyer's concepts and developed programs and initiatives based on the six principles. With chapters written by administrators and faculty from the individual campuses, the book highlights community-building initiatives at Penn State, Messiah College, Oregon State University, Carson – Newman College, and SUNY Stonybrook. In this work, McDonald et al. shared the triumphs and challenges in the quest toward campus community building. They highlighted the importance of institution wide inclusion and support, the development and use of assessment methods, and address the need for additional examples of student-centered initiatives designed to build community.

As McDonald et al. acknowledge, regular assessment methods are essential in the creation and maintenance of strong and vibrant campus communities. Launched in 2000

and created by the Center for Post Secondary Research at Indiana University, the National Survey of Student Engagement (NSSE) collects survey data from freshmen and seniors about their undergraduate experience. This tool tracks campus initiatives and environmental conditions of student life that contribute to a valuable undergraduate experience. University faculty, administrators and researchers use NSSE data to assess educational practices that are empirically linked to learning, persistence and graduation rates.

College persistence and degree conferrals are key goals for all colleges and universities across the country. According to 2012 ACT data, first year to second year retention at public two-year colleges is 55.5% and 65.2 % at four-year, public colleges. Research indicates that a positive relationship exists between strong communities and student persistence.

Kuh, Cruce, Shoup, Kinzie and Gonyea (2008) analyzed multiple data sets from 18 NSSE participating campuses to determine if relationships existed between student behavior and institutional practices designed to enhance the learning environment and facilitate student success. Specifically, the researchers wanted to know if student engagement during the freshman year impacted the students' grade point average and persistence to the second year while considering their background and pre college experiences. Data were collected on 6,193 students from 11 predominately White campuses (PWIs), four Historically Black Colleges and Universities (HBCUs) and 3 Hispanic Serving Institutions (HSIs). The researchers pulled ACT/SAT data sets, NSSE responses and academic and financial aid information from each campus. After a two-stage regression analysis, the relationship between student involvement in educational

purposeful activities and persistence was found to be statistically significant after controlling for financial aid, academic achievement, and background. This finding supports the idea that students that are engaged in campus activities have increased chances of persisting in college.

To explore student persistence in science, technology, engineering and mathematics (STEM) programs, Palmer, Maramba and Dancy (2011) interviewed six students of color at a predominately white, midsized, public research university in the northeast. Through on campus channels and snowball sampling, the authors recruited junior and senior STEM majors with a minimum 2.5 grade point average. One junior and five seniors participated in the study. After 90 – 110 minute, in depth interviews with each student, the researchers discovered three salient themes from the data, (a) peer support, (b) involvement in STEM related activities, and (c) strong pre-college preparation. The first two themes have relevance to this study. Students described the first theme, peer support, as a positive social network and a resource for academic support. They discussed the importance of a safe, engaging environment where they can ask questions and expressed the significance this adds to their self-efficacy as STEM majors. The second theme, involvement in STEM related activities, included participation in student clubs and organizations, summer programs, and interaction with alumni in STEM fields. Students indicated that through participation in these out-of-class activities, they became members of a community of like-minded students, developed valuable communications skills, and made meaning of themselves as students of color in STEM majors.

The presence of diverse and supportive enclaves is an essential component of the undergraduate student experience. Students persist and succeed when conditions exist

that facilitate involvement in educationally purposeful activities and where peer support can flourish. Campus life is enhanced and communities are formed in this environment.

The students' lived experience is an important consideration in life on campus. To explore student perspectives on community at a large private university in New York City, Cheng (2005) conducted focus groups with 42 undergraduate students as a follow up to a 2001 campus wide survey on community issues. The moderated focus group discussions were audio recorded, and a graduate student captured notes and observations from the conversation. The participants were asked to respond to the following questions: (a) what were your expectations of campus community prior to arriving and what have you discovered since your arrival, (b) what impact does the location (New York City) have on campus community, and (c) what happened on campus that has enhanced or decreased your sense of community?

In this study, focus group data were categorized using the conceptual model of Strange and Banning (2001). Strange and Banning developed a hierarchal model of environmental purposes and design, and posit that community develops when students feel safe, included and become involved in campus activities.

The results of this study aligned closely with the structure outlined by the model and results indicated that a positive relationship existed between students' sense of institutional belonging and the quality of services offered on campus. For example, several students expressed dissatisfaction with health services, delayed responses to residence hall maintenance requests and other service challenges resulting in a 60-minute departure from the primary discussion topic. When the moderator attempted to steer the conversation back on track, a student responded "how can we talk about community

without good services on campus? After all, this is the place we call 'home' for four years" (p.3). The students conveyed that the existence of quality student services significantly contributes to their attachment to the campus.

The participants in Cheng's study provided insightful comments about their perceptions of the campus community. They indicated an awareness of the unique community that this particular college offers and discussed how it differs from more of a traditional college experience. Divided on the impact of the city environment on campus community, some students cited the location as the primary reason for selecting the school while others shared feelings of loneliness and expressed a lack of personal and academic support on campus. Participants reported that they fully engage in campus life when personal finances are considered in programming activities and when they have opportunities to interact with students from cultures other than their own. Of particular interest for the proposed study, the students mentioned their residence halls "as the most important place for them to form a sense of community" (p.4). This finding highlights the significance of physical space in community building and opens the door for additional research.

Chengs's work also emphasizes the importance of diversity in community building. For many students the college experience is their first sustained exposure to diversity of thought, perspective, and culture. The successful negotiation and personal development that occurs as students grapple with this reality is an important element of community building.

Drawing from their own experiences as "Muslim women academics" (p. 22), Nasir & El-Amin (2006) interviewed Muslim students on college campuses to explore what

concepts make the environment identity safe. Students cited the presence of a supportive Muslim student organization, well-informed faculty and staff, dietary accommodations (e.g. halal meals and modified meal times during Ramadan) and the provision of private spaces for prayer as key features of identity safe campuses. The participants indicated that student services that met basic needs and physical spaces that supported cultural behavior contributed to feelings of belonging and community engagement.

We now know that varied opportunities for involvement and supportive resources contribute to student engagement and create a connection to the campus. Additionally, the students in the research of Cheng (2005) and Nasir and El-Amin (2006) cited the importance of physical spaces in their experiences of inclusion and community. This highlights a significant gap in the community building literature. The role of physical space in student involvement and campus community has not been explored explicitly. The impact of physical space on campus community is a popular discussion topic among higher education administrators and in professional associations, but there is a dearth of empirical literature on the topic.

Physical Space

In 1978, NASPA (formerly the National Association of Student Personnel Administrators) published a monograph on campus ecology. Edited by James Banning, this work summarized and referenced the theoretical frameworks, assessment tools and reviewed the then current campus design literature in what was thought to be a growing field of inquiry. However, campus ecology, the study of transactional relationships between students and their environments, did not generate much research interest (Renn & Arnold, 2003).

In 2001, Strange and Banning revisited the campus ecology conversation with their highly regarded book, *Educating by Design: Creating Learning Environments That Work.* Divided into two sections (Types and Impacts of Campus Environments & Creating Environments that Foster Educational Success), this work synthesized the theoretical and empirical work on campus environments and continues to be the most significant work on the topic. In section one, Strange and Banning present four types of environments present on university campuses: physical, aggregate, organized and constructed. Each of these environments influence behavior and should be considered in the educational experience.

The physical environment is the most salient and contains the natural and synthetic components of the campus. Physical structures, outdoor spaces, spatial organization, accessibility, navigational flow, and cleanliness are variables in this category. Strange & Banning stress the significance of the non-verbal messages conveyed through the physical environment and the impact on students' attraction and long term satisfaction with a particular campus. The aggregate environment focuses on the collective human characteristics of the individuals that inhabit the environment. These characteristics can include demographic features such as gender, ethnicity, academic majors as well as psychosocial variables. Homogenous aggregate environments can have a powerful influence on individuals that attempt to integrate into them and can positively or negatively influence student persistence and success. Organizational environments are spaces and systems governed by a specific purpose. Classes, student clubs, and university registration processes are examples of organizational environments that directly influence the student experience. The explicit and implicit rules, behavioral expectations,

structures, and goals that guide these environments are influential features of the university. The final category, constructed environments focuses on the subjective experience individuals have and the meaning they construct through social interactions. Institutional culture becomes clear in this category as the conversations, rituals, symbols, and other collective activities have a powerful influence on the student experience. When considered together, Strange and Banning posit that these environments significantly influence human behavior and should be carefully considered for their role in the higher educational experience.

In section two, Strange and Banning outline four conditions for educational success: safety and inclusion, participation and involvement, a community of learners, and assessment and action. Consistent with the first three conditions, they developed a model parallel to Maslow's hierarchy of needs. Their hierarchy of environmental purposes and designs outlines the conditions that lead to students becoming engaged members of the campus community. This model places safety and inclusion at the foundational level 1, involvement at level 2, and community membership at the highest level - 3. The final condition, campus assessment and action, is not included in the model, and relates to the ongoing need for campuses to intentionally consider the impact of physical spaces on safety, involvement, and community. This work advocates for a synergistic balance between student characteristics and institutional features that support learning and the development of vibrant campus communities.

Kuh, Kinzie, Schuh, Whitt and Associates (1991) posit that the campus physical environment contributes to student learning, personal development, and engagement. After a mixed methods investigation of student engagement practices, policies, and

outcomes at 14 exemplary colleges, they asserted that the role of physical space cannot be overlooked. Kuh et al. stated, "Interaction among community members is fostered by the availability of indoor and outdoor spaces where people can come together without much effort. Institutions should consider whether their campuses have adequate places that encourage spontaneous, informal interactions among students" (p. 309). These academic and social interactions define the college experience and can serve as developmental milestones in the life of the student.

Universities are transformational places and the ability to engage in dialogue on diverse topics contributes to learning. Colleges and universities in the United States are more diverse than ever and homogeneous student populations have been replaced with gender, cultural, ethnic, spiritual, sexual, and socioeconomic diversity. The percentage of enrolled Hispanic students increased from 3.5% in 1976 to 12% in 2009. Black student enrollment rates increased from 9.4% to 14.4%, while the percentage of enrolled White students decreased from 82.6% to 62.3% in the same time period. United States colleges and universities are also becoming increasingly international. In 2010, approximately 690,000 international students were enrolled in American colleges and universities (McMurtie, 2011). With increased diversity on college campuses, the presence of facilities and outdoor spaces that encourage conversation and common experiences are important. In a 2004 article in the *Chronicle of Higher Education*, the President of Smith College discussed the significant role space plays in diversity. Dr. Christ stated:

> Public space is vital to building a healthy and rich sense of diversity-not
> diversity only in racial and economic terms, but also of political opinion,
> religious belief, sexual orientation, and cultural background. Such space

provides an opportunity for people to disagree about matters of political conviction without personalizing the debate.

Within the last ten years, there has been increased research interest on teaching and learning spaces significantly impacting two key educational environments, libraries, and classrooms (Temple & Fillippakou, 2007; Cox, 2011). University libraries across the country are evolving. According to a fall 2010 *Steelcase* report, libraries have changed from reading centers, to repositories for books and reference material to their current position as learning centers. Much of the current learning space literature focuses on how libraries are reinventing themselves through renovations, operational changes and shifting staff responsibilities allowing them to become more active in the educational process (Massiss, 2010). Learning Commons, as they are frequently called, boast ubiquitous technology, spaces for independent and group study, soft seating, and coffee shops. The social and collaborative processes of learning are recognized and encouraged in this model (Somerville and Collins, 2008).

As learning theories and pedagogical approaches continue to shift from knowledge transmission to knowledge construction in higher education, the traditional lecture style classroom is also being revisited (Donkai, Toshimori, Mizoue, 2011). One example is the Student Centered Active Learning Environment with Upside Down Pedagogies (SCALE UP) classrooms. Adopted from a North Carolina State University initiative to enhance teaching and learning in large physics classes (Beichner et al. 2007), these learning spaces are typically outfitted with team tables, chairs on casters, white boards, and students have access to computers and projectors. Interaction and collaboration are highly encouraged in these learning spaces.

Impact of Space

Environmental psychologists posit that our surroundings influence cognition and intellectual development (Salingaros, 1999). Joye (2007) conducted a review of interdisciplinary research on the impact of architectural features that imitate or resemble elements from nature and the effect on human psychological and physiological wellbeing. Evolutionary psychologists posit that humans possess cognitive "devices" that developed as a result of the survival-oriented behavior of our ancestors. Joye concludes that certain naturally occurring items (water, plants, and clear views) evoke emotive, physiological and behavioral responses in humans. This research highlights the value of including biophilic (nature based) architectural elements as they can reduce stress and produce other positive feelings. This explains the presence of water features, scenic views and other natural elements commonly used in design and construction. It is common to see students gather near gardens, bodies of water or water features on campuses across the country. Examples of water features are the reflecting pond at the University of Central Florida and the Memorial Union Terrace at the University of Wisconsin Madison are examples of this.

Crupper (2010) describes the creation of a garden on the campus of Haskell Indian Nations University in Kansas and the healing community that was formed in this space. The campus is steeped in history as it developed from a small technical school to a strong comprehensive university. Unfortunately, the historical journey is a reminder of painful stories of child labor and poor treatment of many of the Indians involved in the growth efforts. In response, a garden was established with a two-fold purpose. The garden serves as a memorial for those whose lives were lost and also gives life through the land. With

over 1000 students representing 150 tribes from 44 states, the sowing of medicinal herbs and edible plants serves as a unifying and centering force for the university. This garden is a good example of how a natural space can positively influence community building.

Interior campus spaces can also be welcoming and restorative. Restorative spaces are environments where individuals feel relaxed, comfortable, and engaged. They can be solitary or inherently social, and do not offer the same value to everyone. Oldenburg & Brissett (1982) developed a concept, third place, which emphasizes the social component of restorative spaces. According to Oldenburg & Brissett and others (Banning, Clemons, McKelfresh and Gibbs, 2010; Heffner, 2011; Steinkuehler & Williams, 2006), third spaces are those brick and mortar places where people choose to gather for good conversation, fun and emotional connections outside of work and home. For some, restorative spaces and third places are one and the same. For others, they are two very different places. These places take many forms (e.g. barbershops, local coffee shops, book clubs, etc.), and natural parallels could be made to college unions, residence hall lounges and other student gathering spaces.

In 2010, Banning, Clemmons, McKelfresh, and Gibbs employed ethnographic methods to explore college students' perceptions of third spaces. The authors specifically wanted to know where students find restorative and third spaces, the type of places they are, how these spaces are used, and how frequently students visit them. The researchers asked 91 students to find and describe their third place, and 67 different students to find and describe their restorative spaces. The participants were asked to locate the specific environments and respond to the following questions: (a) why do you consider this space a third/restorative place, (b) how do you describe your third/restorative space, (c) what

type of activities do you engage in while at the third/restorative space, and (d) how frequently do you visit your third/restorative space? Through qualitative document analysis and the constant comparative method, the data analysis reflected that socializing and eating were preferred activities in third spaces. Off campus coffee shops represented the third space for over two thirds of the respondents, suggesting an opportunity for campuses to design and build spaces that encourage socializing and community activities.

Restorative places were most often parks and other quiet natural environments that are inherently more conducive for solitary reflection, reading, or study. Emotional maturity, reflection, and creativity often emanate from times of solitude (Bogue, 2002). Augustin (2009) supports this and posits that being alone provides opportunities to think clearly and problem solve, skills that are essential for success in college. A portfolio of diverse spaces offering the campus community a wide range of options may be ideal.

Spaces can also invoke stressful feelings in individuals, and sustained exposure to a stressful environment can impact learning, cause illness, and create feelings of fatigue (DeYoung, 1999). The implications for college students are clear as these feelings can negatively impact persistence and academic success. Exploration and discussion about the spaces that students avoid will provide insight into this unknown area.

No empirical research could be identified that explores student perceptions of space as it specifically relates to campus community. However, the Office of Institutional Research at the University College of the Fraser Valley (UCFV) (Pizzuti-Ashby & Alary, 2008) conducted a qualitative investigation of student perceptions of the campus environment to inform planning and policy decisions. The methodology and goals of this study are closely aligned with the proposed work as the researchers set out to gather and

catalogue student perceptions of the campus environment. Located in British Columbia with 6,700 students, UCFV offers both bachelors and masters degrees in liberal arts and vocational programs. The 17 participants in this study were 65% female, predominately traditional college age (71% were under the age of 24) and ranged in class ranking (first year undergraduate students – graduate school). The participants were given disposable cameras and asked to take images that (a) represent UCFV, (b) convey what they like about UCVF, (c) convey what should be changed at UCVF, and (d) they felt strongly about sharing. This method, reflexive photography, also included written responses from the students related to their image selections.

The results of this study indicated that students were pleased with the available student support services, used the dedicated student spaces, and enjoyed the overall campus physical environment. In this case, student spaces were the locations used for informal study, planned social activities, and casual peer discussion. Several students emphasized the importance of these spaces in community building. The outcomes of this study resulted in the addition of student lounges, more informal gathering spaces, and the creation of a learning commons that co-located several student support services. In addition, the administration was surprised by the strong connections students formed with the physical environment, specifically the library and trees around campus. As a result, several areas previously considered for expansion will be preserved and enhanced. This project highlights two variables significant to the proposed study, (a) the effectiveness of visual methods in the exploration of student perceptions of physical space, and (b) the significance of physical space on the student experience. However,

there is opportunity for deeper exploration of student perceptions and meaning making of campus spaces.

Physical spaces on college campus convey symbolic, nonverbal messages to students about the university experience and provide the context for social interactions (Schuetz, 2005). Brick and mortar universities "need spaces designed to generate interaction, collaboration, physical movement, and social engagement as primary elements of the student learning experience" (Jamieson, 2003, p.121). This study advances this discussion and provides greater insight into student perceptions of physical space as it relates to community.

CHAPTER 3

METHODOLOGY

Student involvement in campus life contributes to the richness of the educational experience. The social connections, activities and novel experiences facilitate student growth and build community. The role of natural and built environments in this context has not been thoroughly explored. This study considers the influence of physical space of a campus on student involvement and community engagement. In this chapter I outline the environmental design model that guided this study and provide a brief overview of my epistemological lens and theoretical framework. I then discuss ethnography and photo elicitation. After an explanation of the data analyses employed in this work, I conclude the chapter with a discussion of the ethical considerations, quality, and reflexivity of this qualitative study.

Conceptual Framework

Strange and Banning's (2001) hierarchal model of environmental purposes and design guided the conceptualization of this research (See figure 1). With Maslow's (1970) needs hierarchy as a foundation, they developed an ascending model of environmental purposes and design in the college environment. Strange and Banning posit that an environment where students feel safe and included facilitates academic and social involvement in campus. Involved students will take on roles within small groups and in turn become engaged members of the larger campus community. This model served as the fundamental theoretical framework for this study. Situated firmly in ecological systems theory, the work of Strange and Banning specifically considered the

impact of the environment and physical spaces on the college student experience.

The current study explored student perceptions of safety, inclusion, and involvement as

it relates to community as posited in Strange and Banning's model.

Figure 1: Strange & Banning's Hierarchal Model of Environmental Purposes and Design, 2001, p. 109**.**

Epistemology

Constructionism is a theory of knowledge where meaning is derived through individual experiences and interactions with the world (Creswell, 2009). From this perspective, all meaning is arrived at through personal experiences, and meaning is further developed and shared through social interactions (Crotty, 1998). Human experience is a fundamental element of constructionism and this study is framed by this epistemology. This epistemology informed every aspect of this study, from the initial research questions to the written account as I explored college student knowledge construction around physical space, student involvement, campus culture, and community on campus.

Theoretical Perspective

Symbolic interactionism is grounded in three premises, (a) individuals interact with the items in the world based on personal meaning, (b) social interaction is at the root of this meaning, and (c) through a process of personal interpretation, the individual modifies and transforms the meaning through personal experience (Blumer, 1998). This theoretical perspective and allowed me to consider the individual meaning each student brought to the research project and the social, cultural, and personal interpretation that informed their paradigms. The actions of others and human interactions are key variables in symbolic interaction which grounds this work. In this perspective the actions of others impact an individual's experience and one has to "fit one's own line of activity in some manner to the actions of others" (Blumer, 1998, p.8). My approach to this work was exploratory (Blumer, 1998) and the data collection processes and iterative analyses were guided by this principle. Student involvement and community building activities are well

aligned with this perspective, as it is the social interactions between students, participant interaction with the campus environment, and the process of introspection that drives their knowledge construction, meaning making, and behavior.

Ethnography

With roots in nineteenth century anthropology, ethnography is "an approach to experiencing, interpreting and representing culture and society that informs and is informed by sets of discipline, agendas, and theoretical perspectives" (Pink, 2006, p.18). This methodology "combines research design, fieldwork and methods of inquiry to produce historically, politically and personally situated accounts, descriptions, interpretation, and representations of human lives" (Tedlock, 2000, p.455). Ethnographers spend extended time in the field studying the daily lives of the informants. With an exploratory approach, data is collected from many sources including semi − structured and visual data interviews (Hammersely & Atkinson, 2007). Through in depth investigation of a relatively small participant group, data analysis is focused on human behavior, meaning making, institutional practices and the implications of these in a broader context (Hammersely & Atkinson, 2007). This methodological approach is well suited for this research to generate thick, culturally rich data about student perceptions of involvement, community, and the role of physical space on campus. Researchers in psychology, sociology and education continue to use ethnography successfully as a methodological approach to explore individuals, cultures and society.

Photo Elicitation

Initially coined by Collier in 1957, photo elicitation has evolved over the years. When originally used to evoke a response from participants in a research setting, the

implication was that the "facts are in the pictures" (Collier & Collier, 1986, p.35). However, this approach failed to consider the unique lenses through which the informants and researcher view the image (Pink, 2006). In a more collaborative approach, Harper (1998) refined the definition to highlight the diverse perspectives and realities the photographer and the viewers bring to the image. This definition is consistent with the interpretivist paradigm that posits that realities are co-constructed and fluid. The dialogue and discussion that results through the sharing of multiple perspectives can provide rich, thick data in an ethnographic study.

Van Auken, Frisvoll & Stewart (2010) point out that there are two types of photo elicitation, externally driven and participant driven. Photo elicitation in the simplest form is externally driven, and participants are asked to evaluate, respond to, and comment on images pre-selected by the researcher. In this case images can be taken by the researcher or others (e.g. historical images, participants' family albums, etc.), and may have no authentic connection to the participants. Conversely, reflexive photography is a participant driven form of photo elicitation. This method provides the respondents with greater agency and data is "sought in the expression of the subject" (Harper, 1988, p.61). Participants are asked to take photographs of concepts, places, activities, and other items of interest to the researcher. Participants are then asked to describe the photographs, explain the context, share what was going on when the picture was taken, talk about the people and places represented, and convey the meaning the images have to them. Douglas (1998), and Harrington and Schibik (2003) utilized this method to explore college student impressions of the first year experience, substantiating the reliability and validity of reflexive photography in the study of student experiences on campus.

Photographic Method Used in this Study

I chose reflexive photography as the method to explore community building and physical space in the college environment because of the opportunity it provided for students to share their perspectives on campus spaces. Meaning making is at the heart of reflexive photography and I believe students are uniquely qualified to provide insight into the physical environment and spaces that define their experience. The photographs provided a platform for students to share and expand on their experiences (Croghan, Griffin, Hunter & Phoenix, 2008). Research methods should meet the aims of the research (Pink, 2006) and reflexive photo elicitation was well suited for this study.

Several benefits of this method are worth noting. Participants are more engaged in research with images (Van Auken et al., 2010), the data generated with the assistance of images is often more concrete (Collier & Collier, 1986), and the resulting discussions provide access into the participants lives that would have been difficult to access or communicate verbally (Croghan, Griffin, Hunter & Phoenix, 2008). All of these benefits were realized in this work.

The potential for significant limitations also existed with photo elicitation as it relates to this study. Community is a difficult concept to capture and could have been challenging for the students to convey visually. Another potential limitation is time; this form of research requires a significant time commitment from the participants and fatigue was a potential outcome. However, I mitigated these limitations through clearly stated objectives, open communication during the research process, and a research timeline that aligned with the academic calendar (see Appendix A for the research timeline).

Methods

Data were collected at a public research university in a large city in the southeast where I have worked in higher education administration for 13 years. This site was selected because of the traditional aged student population, domestic and international student mix, high-level administrative focus in the quest for a vibrant community, and researcher access. This highly selective university enrolls 20,000 students across six colleges and the work of this study did not disrupt normal operations.

Pilot interview. I conducted a pilot research review session and photo elicitation interview with a student that expressed interest in the project and a willingness to participate as a pilot. Taking this opportunity to practice, I followed the research review and informed consent process as outlined. The student collected visual data and submitted the images to me via email 2 hours after the research review session. I reviewed the images and invited the student to participate in an interview the next day. This 30 - minute interview was audio recorded and I chose not to transcribe the data, as it would not be analyzed as a part of this study. This pilot process provided me with a valuable opportunity to test the flow of the research review session, the data collection process, and the interview protocol. As a direct result of this process, I edited the layout of the interview note page by adding space for notes and post interview reactions. I also added participant demographic information to the top of the notes page for easy tracking.

Participant recruitment. Students were recruited to participate in this study through purposive selection. This method was chosen to help me best understand the influence of physical space on student involvement and community building within the university environment (Creswell, 2009). I emailed twenty-five campus colleagues in

student services and academic affairs to identify and contact students that they felt were

well suited to participate in this study (see Appendix B for email to campus colleagues).

The selection criteria included only students with two or more years of experience on

campus. The colleagues I selected had extensive and broad student contact. I did not

email or otherwise contact colleagues with a direct or indirect reporting relationship to

my department or me. The colleagues were asked to forward an email to students

outlining the research project and the tentative timeline (see Appendix C for student

recruitment email). Students that were interested in learning more about the project were

asked to contact me via email to set up an individual research session. I received 13

emails from students expressing interest in the project. I replied to the interested students

from my campus email account, thanked him or her for their interest and invited them to

sign up for a research review session via an online scheduling tool. The former President

of the Student Union Program Board and a student that worked for my supervisor were

recruited by colleagues and asked to participate in the study.

　　　Review sessions. To maintain confidentiality, the review sessions were scheduled

at least 30 minutes apart and individual names were not visible to potential participants

on the scheduling tool. Three students withdrew from the study prior to the research

review sessions due to scheduling conflicts. I conducted 10, 30 – 40 minute individual

research sessions with each potential participant. This data size is consistent with

qualitative methods (Miles & Huberman, 1994) for in depth exploration of individual

experiences. In these discussions, I restated my role as a doctoral student at Georgia

State University, shared my position on campus, provided a comprehensive review of the

data collection process and invited the students to tell me about themselves and share

what they found interesting about the study. I reviewed timelines, ethical issues, photography guidelines, potential risks and benefits of participation, and privacy guidelines. I outlined the research goals, timeline and tasks (see Appendix D for research session script) and stated the image submission guidelines and deadlines. I reviewed the informed consent form (see Appendix E), shared the guidelines regarding photography outlined by the IRB at Georgia State University, responded to questions, and requested their signature indicative of their interest and willingness to participate in the project. All of the students agreed to participate and were provided with resource packets in 8 ½ by 11 envelopes for their use and reference during the project. The resource packet included (a) a copy of the research review session script, (b) a tentative project timeline, (c) the research tasks, (d) an informed consent form, and (e) a list of key contacts. In addition to my name, phone number and email address, the key contact sheet included information for the campus police, the counseling center, the Dean of Student's office, and my primary advisor as an additional point of reference for any issues that could have arisen during the course of the project. Participants were also informed of their ability to withdraw from the study at any time.

Methods of Data Generation

Photo elicitation. Each participant was asked to take 1-15 photographs of where they spend time on campus, and 1-15 photographs of places they avoid on campus, other than classrooms and labs. All of the participants elected to use personal photographic devices and agreed not to share, post online, print, or publish images outside of the scope of the research project to preserve the original intent and meaning. Each student was given 1.5 - 2 weeks to submit the images via email and encouraged to begin taking photographs

immediately. I chose 30 photographs per participant as the upper limit to allow ample

time for rich discussions, thick descriptions, and to ensure efficient data management.

Seven days in advance of the established submission deadline, I emailed each

participant to remind them of the tasks and timeline. As students submitted their images, I

thanked them and invited them to set up a face-to-face interview. I provided several

options and followed up with a confirming message once the time and date were

established.

Photo interviews. I conducted nine, 60 – 90 minute, semi - structured individual

interviews. One student withdrew prior to the interview phase of the study. I prepared a

folder with the images and a blank interview protocol and note document (see Appendix

F) for each participant in advance of the interview. After each student was seated, I

placed their printed images on the table in front of them and asked for permission to

begin the audio recording. I also explained that I would take limited notes to capture

emphasis, expressions, and other elements not detectable by recording devices. Once

permission was granted, I started the recording and asked them to "tell me about the

experience" and share any initial thoughts on the project. I asked them to sort the images

into two stacks, preferred spaces and the spaces that they avoid. We consistently began

the discussion with the preferred spaces and the opening statement was "Please tell me

about this space." Each face-to-face interview was conducted with the same interview

protocol with flexibility for appropriate follow up questions. The questions were open

ended and I probed to gain a solid understanding of participant perspectives and meaning.

I supplemented the interview with follow up questions related to the participants'

responses. The participants directed the image order and the time spent on each. The

participants were encouraged to discuss as many or as few of the submitted images they choose. They spoke freely about the images, the circumstances surrounding the images, and their experiences on campus. At the conclusion of each interview, I asked the participants to share any additional thoughts, feelings, and reflections about campus culture, community and physical space. All of the participants stated that they enjoyed the study and expressed gratitude for the opportunity to participate. The seniors mentioned the valuable reflection opportunity that this experience afforded them as they prepared to graduate. One student returned to his freshman residence hall quad to take a photograph for the study. While there he ran into a former hall mate from his freshman year that he lost touch with. As a direct result of this study, they are back in contact and have resumed weekly get-togethers.

Just before the conversations ended, I asked each student to confirm his or her class standing, academic major, and ethnicity. They were given the opportunity to ask questions about the project and were reminded that the interview would be transcribed and emailed for their review and comment. I thanked the participants for their time and contributions, and gave each one a $10 Starbucks gift card.

Interview data. All interviews were transcribed by Landmark Associates, Inc. (www.thelai.com) and all information was transmitted electronically through their secure portal. After an initial read of each transcript, I emailed each participant a copy and asked that they review it for accuracy. I also invited them to elaborate on any portion of the conversation and share concluding thoughts on physical space, campus community, and the study. Of the nine participants, eight responded, and two submitted minor edits related to spelling and proper names. All of the responding participants took this time to

thank me and reiterated that they enjoyed participating in the project. They all wished me luck and offered to re-engage if additional information was needed.

     Reflective journal. I maintained a journal to capture my thoughts and actions at each stage of this study. These handwritten, personal notes and memos reflect my feelings, reactions, concerns, challenges, biases, and general impressions of the study (Bogdan & Biklen, 2003; Richardson, 2000). This practice allowed me to understand how I perceived the data, analyzed the data, and chronicled my interactions with the participants.

Research Ethics

     The Georgia State University Institutional Review Board (IRB) granted approval for this study on February 28, 2013 and I adhered to the direction and guidelines outlined. IRB approval was not required from the collection site because the research was conducted as a part of a degree program. I met with each participant individually to outline the research purpose and procedures, assigned the campus, campus spaces, and each participant a pseudonym. All data is stored on my password protected, personal computer. The transcribed data, and images have been coded with pseudonyms and are stored in a locked safe in my home. If participants had displayed or shared feelings of stress, anxiety, isolation, or marginality, I was prepared to provide referral information for resources and services available through the Office of Student Affairs.

Issues of Quality

     I invited the participants to review their narratives for accuracy, to elaborate and to share their thoughts as a form of member reflection (Tracy, 2010). Transparency was achieved through a clearly outlined research approach, well-defined data collection

methods, and organized methods of analysis. I also maintained a reflective journal outlining each step of the research process.

The participant generated images, interview data, and my journal provide three sources of data, from multiple perspectives. Grounded in constructionism, the participants and I have made meaning of the data based on our experience and personal interactions. Our varied perspectives conveyed multiple truths and interpretations. The image that best represents this is the crystal as explained by Richardson (2000). "Crystals are prisms that reflect externalities and refract within themselves. What we see depends on our angle of repose" (p.940). Crystallization presents a "deep, complex, and thoroughly partial understanding of the topic" (p. 940).

Researcher reflexivity. Qualitative inquiry and the ethnographic method require that I consider the lenses, perspectives, and expectations that I brought to this study. My professional commitment to student learning and campus community building, and 20 - year career in higher education administration drive my interest in this topic. My undergraduate college experience, my career path, and my current position lead me to this study.

As a Residence Hall Director, the creation and maintenance of a safe and open community for students was our goal. The residence hall is a physical place where students live together and experience many facets of the university experience in community. My college admissions position also focused on the community building aspect of the college experience. In this role my goals were to help students find the appropriate college fit by aligning attributes of the school with their developmental wishes and educational goals. In my opinion, students should select the campus with the

intellectual and social communities that they feel best position them to thrive. My current position in the college union solidified my research interest in this topic. The physical structures, services, and the activities that are planned and executed through the college union are geared to enhance student involvement and build community.

The term community is ubiquitous on many campuses as Student Services professionals in residence life, service learning, and the college union have it at the center of their initiatives. However, community is a term that I hear few students use. It is important to me that individual students articulate what community means to them, and convey through words and images how they experience it. The student voice is essential in this work.

I held several assumptions and expectations as I approached this work. I assumed that students that persist have successfully found a community or multiple communities within the university environment. I expected to find that experienced students would have reflected on the campus community and easily understand the related concepts. I believed involvement and perceptions of community would differ between individual students based on what they need, expect, and their individual lived experiences. I expected that students would take photographs of similar or identical spaces on campus and potentially describe very different impressions of the places leading to unique meaning and personal significance. I expected diversity of thought and experience based on cultural perspectives, social behavior, personality, academic major and campus climate. As a middle age African American female, generational perspectives, issues of race, culture, and gender frame my thoughts on this work.

I am very familiar with the data collection site and knew many of the public spaces that the participants photographed and discussed. I refrained from making assumptions and did not insert my impressions of the spaces they presented. I did not steer the discussions and actively listened to the students as they described their unique experiences and perspectives.

Data Management

All of the emailed images were downloaded onto my personal password protected MacBook Pro laptop computer. The interviews were digitally recorder on my Sony ICD UX523 voice recorder and uploaded to my personal password protected computer. The images and interviews are stored in folders labeled with the participants' pseudonyms on my computer. Hard copies of the signed consent forms, and electronic files containing the audio interviews, and the written transcripts have been placed on a hard drive as a back up and stored in a locked safe in my home.

Methods of Data Analysis

According to Creswell (2009), data analysis has several elements, (a) organization of the data, (b) preparation of the data for analysis, (c) varied and multiple analyses of the data (d) description and representation of the data and, (e) interpretation of the data. I followed this multi step process.

Data analysis also occurred at each phase of the data collection process, permitting me to become increasingly familiar with the data and allowing me to incorporate emerging concepts into subsequent discussions (Miles, Huberman, and Saldana, 2013). For example, after each interview, I listened to the audio recording and added thoughts and

reactions to my initial notes when warranted. This practice allowed me to hear the

participants' descriptions, explanations, and experiences in their words.

　　　Data analysis. Several copies of each of the participant edited transcripts were

printed for easy review and coding. I read each transcript multiple times and jotted initial

thoughts, observations, and reactions in the margins. I connected ideas by color-coding

my comments. To see an "exploratory" (Miles, Huberman, & Saldana, p.109, 2013) view

of the data, I created a simple matrix that included a sample of the responses and

participant discussions of their first preferred image. In addition to an initial exploratory

view, this matrix allowed me to see the interview data across participants and begin to

detect patterns.

　　Data analysis was conducted in four phases. In the first phase, I used the terms in

Strange and Banning's model of hierarchical purposes and design for deductive coding

(Miles, Huberman and Saldana, 2013). I explored each term in Strange and Banning's

model independently (safety and inclusion, involvement, and community).To explore

experiences of spaces participants indicated that they avoid, I also considered the spaces

they described as unsafe and not welcome. I used the terms (a) physical safety, (b)

psychological safety (c) inclusion, (d) involvement, and (e) community from the model; I

also considered (f) unsafe and (g) not welcoming. Employing Saldana's (2012) two-

phase coding stages, I read each transcript and used the aforementioned terms from

Strange and Banning's model to filter relevant comments from the text. I highlighted

each statement that conveyed the idea of the term with corresponding colors for easy

review. In the second stage, I reviewed the highlighted text for patterns and outliers.

These patterns were listed and condensed into concepts. Table 1 outlines an example of

this process. When used as codes, these seven terms yielded 21 concepts. I choose the word concept over theme because this was the initial phase in multiphase analysis. See Table 2 for a matrix display of the a priori codes and resulting concepts.

Table 1. *Example of Concept Development*

Deductive Code	Interview Text and Patterns	Concepts
Physical Safety	• I feel safest in my dorm room. • My apartment is very safe. • I feel safe in my bed.	Personal Residence
	• The door locks automatically. • Campus card is required for access.	Controlled Access
	• There are always people around in the library and the Student Union. • I am never alone there.	Population Density

Table 2 – *Codes and Resulting Concepts*

A Priori Code	Concept 1	Concept 2	Concept 3	Concept 4
Physical Safety	Personal Residence	Controlled Access	Population Density	
Not Safe	Public Access without Control	No Visual Security Presence		
Psychological Safety	Recreation	Natural Environment	Restorative Space	
Inclusive	Design Intention	Work Tools and People	Engaging Activities	Mattering
Not Welcome	Barriers that Result From Construction	Closed Community	Poor Physical Conditions	
Involvement	Formal and Informal Meeting Space	Activities		
Community	Student Organization Offices	Outdoor Space and Central Locations	Student Activity	Recreation and Athletics

In the second data analysis phase, I used the matrix developed in the proposal stage of this study to link the methods to the primary research question (see Appendix G) and responded to the focal questions with interview and photographic data provided by the participants.

In the third phase of data analysis, I listened to the interviews, read the transcripts multiple times, and coded them line by line to discern emerging themes not reflected in the first two phases. I also used Wordle software to provide a word cloud. This tool allowed me to visualize word frequency as another way of determining possible themes. See Figure 2 for an example of a Wordle.

Figure 2. Word cloud of one participant's interview

In the fourth and final phase of data analysis, I considered each research question through the interview and photographic data. With the concepts and patterns made visible through data organization, data reduction, and the first three phases of data analysis, clear themes emerged through the data.

Summary

Conceived through Strange and Banning's hierarchical model of environmental design and theoretically grounded in symbolic interactionism, this ethnographic work was designed to understand the role physical space plays in student involvement and community on campus. Images and photo-elicited interviews were the primary data sources and data were analyzed in four phases. The findings will be described and presented in the next chapter.

CHAPTER 4

FINDINGS

The university environment is comprised of multiple academic and social student communities. The development of these enclaves is encouraged through group projects, co-curricular activities, and other programming initiatives. These communities provide essential support for student success in college. Little is known about the role of physical spaces in building community on campus and the findings from this qualitative study fill a gap in the student involvement and campus ecology literature, advance the discussions on student engagement, and provide visual data on student perceptions of community and physical spaces on campus. The purpose of this study was to understand the role space plays in student involvement and community on campus.

This chapter presents the findings from the participant images and interviews on physical space and community. To achieve the goals of this study only the data that addresses the research questions is shared. What follows is an overview of the research site, an outline of the participant demographics, and the findings that emerged through the data with support from participant quotes and images. The campus and the participants were given pseudonyms to maintain confidentiality. Additionally, the names of several campus locations have been altered or omitted.

Research Site

With over 21,000 students, Francis University, a pseudonym, is a global leader in technological research. Located on 400 acres in a city in the southeast, Francis University is often listed in the *US News and World Report* as a Top Ten University. The

University's website describes the campus as focused on " improving the human condition through advanced science and technology." In the fall of 2012, Francis University enrolled 21,557 students from 118 different countries. Among the undergraduate population of 14,500 students, the top three undergraduate majors are mechanical, industrial, and biomedical engineering. The top three graduate programs are electrical and computer, mechanical, and aerospace engineering. A highly selective university, the average SAT score of the fall 2012 entering class was 1405. Of this class of 3047 undergraduate students, 1093 were female.

Participants

Eight undergraduates and one graduate student participated in this study. All of the participants have been on campus for least 2.5 years, entered Francis University as freshmen, and represented varying degrees of campus involvement. At the time of the study, seven of the undergraduate students lived in university housing, one undergraduate student resided in a fraternity house located on campus, and the graduate student lived off campus. Five of the participants were female, two students had permanent residence outside of the United States, and one student is visually impaired. Table 3 contains an overview of participant demographic data.

Table 3. *Participants*

Name	Gender	Ethnicity*	Year in School	Degree Program	Number of Images Submitted
AA	Female	Iranian	3rd	Biochemistry	3
BB	Male	White	3rd	Business Administration	6
BZ	Female	Asian	3rd	Biomedical Engineering	10
HH	Male	White/South African**	3rd	Business Administration	9
JB	Female	White	1st year graduate student/ 5th year on campus	Civil Engineering	19
LV	Male	White	4th	Aerospace Engineering	19
SS	Female	American/ Indian	4th	Aerospace Engineering	4
SQ	Female	Indian	4th	Business Administration	15
VV	Male	White	4th	Business Administration	10
				Total Images	**95**

* Self-Identified
**International student

The Francis Experience

The participants provided vivid images and offered detailed descriptions about the physical spaces and community at Francis University. Our discussions were lively and the study participants seemed to enjoy talking about the campus and their experiences. The images and photo elicited interviews yielded valuable insight into student life and allowed me to see how these students experienced the natural and built environments of the campus. The participants answered five of the six research questions. Their responses have been categorized into themes, which directly relate to each research question proposed. Table 4 contains each research question and the resulting themes.

Table 4. *Research Questions and Themes*

Research Question	Theme(s)
What role does the campus physical environment play in students' experience of community in college?	• Making Connections in Campus Spaces • Enjoying Solitude in Campus Spaces
What are students' experiences of student involvement in campus spaces?	Belonging and Leadership in Campus Spaces
What role does the campus physical environment play in students' ability to meet and interact with peers?	• Interacting in Academic Spaces • Interacting in Recreational Spaces
How do students' experience the campus physical environment?	Spaces of Pride
How do students experience the physical environment as they consider issues of physical and psychological safety?	Territoriality A. Control B. Vulnerable C. Restoration
How do students experience the physical environment as they consider issues of diversity and inclusion?	No Data

Physical Environment and Community

The primary research question related to the role of the physical environment in the students' experience of community and two themes, *making connections in campus spaces and enjoying solitude in campus spaces*, resonated through each of the participants' comments.

   Making connections in campus spaces. The physical spaces at Francis University offered a wide range of positive community enhancing options for the study participants. The students took advantage of opportunities to enjoy the campus with large groups, close friends and alone. The students formed friendships and connected with the university community at large in many of the natural spaces and built facilities on campus. Students eloquently described memorable conversations with administrators, meaningful experiences with peers, and the significance of the university environment in their allegiance to their school. In one example JB describes the valuable opportunity to play and connect with peers on the green space in the center of campus:

   The other thing I love about this space, and it'll probably counter with all my
   other spaces, is it's a central kind of artery of campus. You can sit here. I mean I
   joined in Frisbee games here with people I didn't even know. I just really wanted
   to play Frisbee. I kicked off my shoes, and I walked over to them, and they let me
   play, or I'll run into friends I know playing Frisbee, and I'll join in for like the 15
   minutes I have. Then people walk by that I know, and I'll pull them into it. Yeah,
   and then like this is very open and then right across the way you have these giant
   old trees that I love. You can sit around in the shade. I have been known to just
   go sit there, and we'll see a friend we'll wave at them. A friend will come over

and talk. We'll see another friend. That friend will come over, and we'll start

talking. I can't tell you how many people I've introduced in this central area.

Figure 3. Campus Walkway, Image submitted by JB

Figure 4. Campus Green Space, Image submitted by JB

BZ expressed preference for a high traffic space in the Student Union that allows her the opportunity to be in the middle of multiple activities simultaneously. She explained that this location is the center of activity. Here she can eat, meet friends, shop, see what organizations display and watch a performance on the stage.

Figure 5. Student Union Food Court, Image submitted by BZ

This is the one of two food courts in the Student Union. In addition to the retail dining options, the space contains a performance stage and student organization kiosks align the perimeter of this space. LV also selected this space as a preferred space.

As mentioned previously, several of the participants commented on the reflection opportunities this study allowed. Here SQ, a 4th year, highlighted her reflective appreciation for the large study sessions that occur at the end of each academic term. She stated:

> *I only like it at the least favorite time of the semester, finals week, because you're not gonna get that after you graduate. I've been thinking about all this stuff. Finals week sucks and everyone's freaking out, stressing out, everything. People live in the Learning Commons during that time. You order food and everyone's there sleeping on couches and stuff. Sometimes my organization rented that room and we studied there, and spent all night there taking turns napping on the couches while other people were studying. It was good times. You just look around and there are so many other students doing the same thing. After you leave college, you're never gonna get that back. I did study in other spaces, but it was when I was feeling defeated a little bit. I'd go there and I'd have people who also felt defeated. We'd all just kind of take a breather, do some yoga, and continue our studying. It was helpful. [Giggle]*

Figure 6. Learning Commons, Image Submitted by SQ

Francis University is well known for it's science and technology programs and does not have an established School of the Performing Arts. However, two of the participants discussed their involvement in musical groups and reported an increased focus on the arts on campus. Both of the musically inclined participants indicated that the number and size of musical performance groups are growing and the pressure for adequate rehearsal space is becoming a challenge. LV is a member of the campus orchestra and passionately describes his appreciation for the community of musicians that has formed in their space on campus:

> *Obviously, it's a large, open space. It's just full of musical instruments. That's its only purpose. All the music instruments stay in that room. All the percussions are in the back; the tympanis are on the side. It's amazing. It just fills with life and so many people. Because when we have orchestra, we have 115 people in that room, and it's not all that big. We're crammed in there, and we have our instruments. We're there for the only purpose of making music. We take time out of our days, all of us coming together, to do that. There are not many things you get that many people together at Francis to do something that's not—it's not academic. It is an academic class, but not school. It's not towards your major. It's something we love, and we enjoy doing. Yeah, every Tuesday, Thursday night. The bands are really, really tight. It's a different culture between orchestra and the bands. The bands, they hang out a lot, they have a lot of socials. Orchestra, we all have our own things, and we come together. It's a little different community.*

Figure 7. Band and Orchestra Rehearsal Space, Image Submitted by LV

LV described this space as the heart of the orchestra and expressed his appreciation for the strong community that comes together here.

Of the 21,000 students, 8000 live in the University Residence Halls. Francis University has a strong First Year Program and boasts a 95% retention rate. The Residence Life Staff facilitates activities and programs that are geared to intentionally promote social interaction and support the academic experience. While some students move off campus after the first two years of school, the Francis University Residence Halls are home to many upperclassmen. The participants in this study cited convenience as the primary reason they remain on campus. With this, places of residence also created strong community connection opportunities for the participants in this study. Two of the participants photographed and discussed the common areas of their residence halls as significant community spaces. LV selected his residence hall lounge as the first preferred space to discuss during the interview and shared:

> *It's the social aspect of the apartment. It's where all of us come to hang out. If*
> *we're taking a study break, we walk in here, we sit down on the couch. You sit*
> *down in the common room, and that's how you all connect together. It's where*

you, your roommates decorate it with whatever you have, whatever you want. It's

just relaxing. Nobody studies in the common room.

HH also conveyed a strong connection to his residence hall peers. Throughout his interview, HH focused on the importance of purposeful and practical design of built spaces. In describing the physical elements that make the lounge in his residence hall an effective community space, HH described his image this way:

That's on my floor. Yeah. It's just a nice big space. You can't see it, but there's a

TV. There's a beanbag chair as well. I don't know. That's just a nice communal

area for everyone to hang out. It was a little hard to get a picture of it without

people inside of it. There are big windows into it. You can see, "Oh, it's full. Oh,

they're having a party. There's cake in there. Let me go join them." It's a good

space to hold events for the floor. It's just a good space.

Figures 8 & 9. Residence Hall Lounges, Images Submitted by HH and LV

HH and LV describe the lounge spaces in their residence halls as highly social, interactive spaces. Both spaces have televisions and LV's image (right) shows the gaming system that they project on to the wall to play. HH confessed that this image is taken at 3:00 am as that was when "people finally left".

The Francis University residence halls were not the only living space highlighted as providing a social connection point. After joining a fraternity within the first few weeks of his freshman year, VV reported spending a significant amount of time in the fraternity house and developing deep friendships there. VV moved into the fraternity house as a sophomore and lived there at the time of the interview. Here he describes the living room,

> *This is in the front—the very first room you walk in my fraternity house. This room is really strictly is social and recreation. I wouldn't even try and get work done here, cuz there are people coming and going a lot. This is where I choose to just flop down on the couch and relax when I have time to do that. This is where I've been hanging out for four years at Francis. I think the way Greek houses are set-up, they are designed to build community.*

Figure 10. Fraternity House, Image Submitted by VV

There are two Starbucks coffee shops located on the Francis University campus, one in the Learning Commons and the other inside of the primary campus bookstore. Starbucks was mentioned as a social gathering space by six of the nine participants and each of them expressed a preference for one location over the other. Citing too much noise, proximity to class, and preference for the age of the patrons in a particular location, Starbucks was identified as preferred space to meet with friends. SQ and HH submitted images of the Learning Center location.

Figure 11. Starbucks, Image Submitted by HH

This is one of two Starbucks coffee shops located on campus. HH likes the ambiance (lighting, background music, and colors) and SQ likes the natural light and the smell of coffee. SQ also stated frustration with this space during busy times.

Enjoying solitude in campus spaces. The importance of solitude was also conveyed as students described how and where they spent time on campus. Seven of the nine participants shared a preferred space that they enjoy spending time in alone. For example, when looking for a space to read or study by herself, SQ chooses a scenic outdoor location adjacent to an academic building and describes her image this way:

> *The city view is just awesome. I can't think of any other place on campus that has this view. It's awesome. This [is a] place I have never gone with someone else. I usually go alone when I'm studying.*

Figure 12. Study Destination With a View, Submitted by SQ

While describing an image of a preferred space in the School of Business, VV articulated his preference for small, intimate spaces and explains his appreciation for a particular study location: *This is the breakout room I really like because it's very isolated. I love studying by myself. That's just how I study best.*
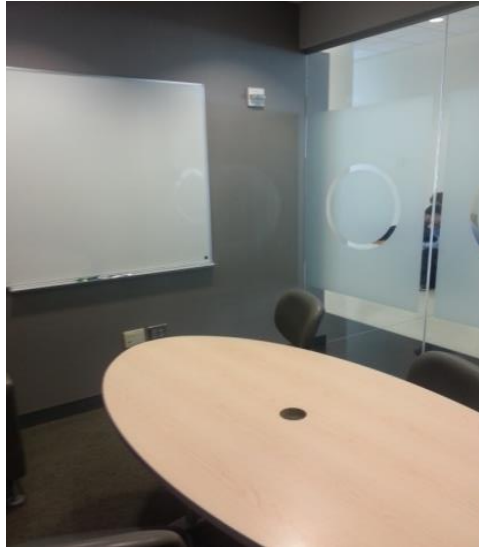

Figure 13. School of Business Breakout Room, Submitted by VV

Student Involvement

The second research question addresses student involvement in campus spaces. All of the students shared that they were actively involved on campus and enjoyed the engagement experiences and opportunities that existed at Francis University. LV recalled being impressed by the outdoor student organizations fair held at the beginning of his freshman year and commented on the wide variety of groups and activities available to students on campus. BB and SQ have campus jobs and indicated feeling involved and a part of the university community through their places of employment as well as through their student organizations. While only one student shared that his co-curricular activity was a variable in his decision to attend Francis, the other participants clearly stated that participation in activities beyond the classroom helped to facilitate campus community engagement. One theme emerged through the data as students described the organizations, activities and spaces that facilitate campus engagement, *belonging and leadership in campus spaces*.

  Belonging and leadership in campus spaces. Two participants shared that becoming actively involved in campus activities early in their university experience helped them feel a sense of belonging that led to their persistence at Francis. In both instances the students were from out of state and shared that without the early engagement, they would have transferred to other schools. JB shared:

> *I'm not good at the purely engineering thing—well, I'm good at engineering. If that was all I did with my life I would not be happy. The service organization let me search, connect with people, let me get involved with things in the community, which made me feel connected to the community. It really started*

to ground me at Francis University and in the city. Before that I was not very happy my first semester. I was considering maybe going back to a SUNY (State University of New York) school where I had a better community. I'm from New York originally. It was definitely the service organization that led to my further involvement. Not only to my involvement in Francis University, but my enjoyment of Francis University.

SS had a similar experience and describes the significance of her early involvement with the Student Union programming board:

When I first came to Francis, I didn't really know what I wanted to do. I applied for a first year leadership group, but I didn't get it. I was like, "dang. I'm dumb." No one wants me. [Laughter] and then I got an email and it was like yeah, apply for a Union Program committee, and so I applied for that because I was like – "Oh, why not?" I remember this very distinctly, but we would meet in room 524 of the Student Union. The first time I got there, I sat down outside, and I was really excited. I was like, I'm going to a meeting; I'm so official. I think that was one of my first memories in the student union and that connection was made. I would go into that boardroom once a week because now I was on the committee. I'm going to a meeting. I'm being official. Someone wants me. I'm here. I can do something.

The provision of spaces on campus for students to meet, plan, and execute organizational activities that give them a sense of purpose leads to engagement, academic persistence, and additional leadership development opportunities. Both JB and SS indicated that they eventually served as presidents of the organizations that started and

solidified their connections to Francis. In another example, LV described his leadership

path:

> *People approached me after I'd been involved. "Hey, we want you to do this for*
>
> *us." The Student Foundation, their board of trustees called me, then, "We want*
>
> *you to be a director to do this." Leadership organizations - they tapped me. They*
>
> *recognized me. My fraternity, they reached out to me. After I had my footing in*
>
> *music and was a leader, then people started selecting me to do other things.*

The Francis University Dean of Students Office website lists over 500 active

student organizations. Most of these organizations operate without physical office spaces,

however, there is a central organizations office and resource center located in the Student

Union. This space houses 10-12 student organizations and office space is determined

through an annual application process. In addition the student organizations, there are

four professional offices here to provide direction and guidance to the 500 student

organizations on campus. The offices are open during normal business hours and are

accessible after hours via campus card for students in organizational leadership. This

central organization space and two other student organization office spaces were

photographed and mentioned by five of the participants as preferred spaces

during data collection. Each of these students described these spaces as places were

connections were made, campus engagement deepened and community bonds were

sustained. LV discusses the value of this shared space:

> *I recently started to start spending a lot more time in the student organizations*
>
> *office. Once I got into the student organization space, I met all the other leaders,*
>
> *and then I really started getting involved in more things. Just the joint space, we*

all have our offices there. Everybody comes in there to work. You meet all the

other leaders and, you're, like, "Oh, okay. I know this one." You start

collaborating. That space is definitely important for getting me involved on

campus more, expanding on what I was doing.

Figure 14. Student Organization Office, Image Submitted by JB

This is a suite of student organization offices located on the second floor of the Student Union. JB, VV, and LV discussed the significance of this space in helping them build and maintain strong organizations and connect with other student leaders for coordination and collaboration.

In another student organization office example SS described the connections formed in the Student Union Program Board office:

> I'm a firm believer that if you want to become a member of the Union Program Board you need to spend time in this office because that is where your connection to the organization, that is where your connection to the people of the organization, and that's where your connection to the mission of that organization is built. The Board would not be nearly as effective without this space. Not to detract from the other support that union board has, like the advisers or just the financial support, or the knowledge, or the experience that the members have, but I think the fact that people have a place in the center of campus that they can come to, or a place that they can be like yeah, that's mine. That's my office. That's where I go to hang out. That's where I do my work. I think it gives a level of ownership and a level of legitimacy to what you do.

Physical Environment and Peer Interaction

The participants described many public and private spaces where peer interaction occurred and two themes emerged, *interacting through academic spaces* and *interacting through recreational spaces*.

Interacting in academic spaces. The academic rigor of Francis was mentioned by all of the participants and time spent studying alone or with peers was a consistent thread in the conversations. At one point during my interview with BZ, she reviewed her images and realized that almost all of her preferred spaces were for studying. She was taken aback by this revelation and began to think out loud about her truly social spaces on campus. BZ was not alone; all of the participants described multiple places to interact

with peers for academic purposes. BZ describes a quiet section in Frost Hall, an academic

building;

This one's more secluded so, if it's too loud at another place, I can come here. I

like the booth style. If I do need to concentrate, this area doesn't get a whole lot of

through traffic. It's a little more secluded. I think this window looks out onto the

courtyard so it's a nice view.

Figure 15. Frost Hall, Image Submitted by BZ

SS describes the academic community that exists in a library within Moss Hall:

> *I really didn't start using it until I started taking very heavy loads in my major*
>
> *and so I think, for the most part, you see like juniors and seniors in the room.*
>
> *Yeah and I think that's why we're all there. It's 'cause I'm sitting here working on*
>
> *my homework and I can go down two tables and see what's someone else is doing,*
>
> *or a lot of senior design teams meet in here because it's just very collaborative.*

HH admits to spending a great deal of time in the School of Business and credits the academic focused programs and activities that occur within that facility for making it a regular destination. Here again, he comments on the design, layout, and functionality of another of this preferred space:

> *I like spending time there because that's just kind of how it was designed. A lot of*
>
> *breakout rooms so it just makes a very easy space to inhabit especially when you*
>
> *have classes there. I like the open space. It's not very cramped. If you need to*
>
> *find a space and spread yourself out you can. If you need to have a group*
>
> *meeting there's enough space where you can have a group meeting but not being*
>
> *impeded upon by other groups. I don't have class on Monday, Wednesday or*
>
> *Friday, and I'll probably go there once or twice—- on the Mondays, Wednesdays*
>
> *and Fridays. I definitely make my way. Even though it's probably the furthest*
>
> *building from me, I still make my way there.*

Figure 16. School of Business, Submitted by HH

In another School of Business example, BB and SQ described the significance of the

courtyard. They both highlighted the academic support system and social camaraderie

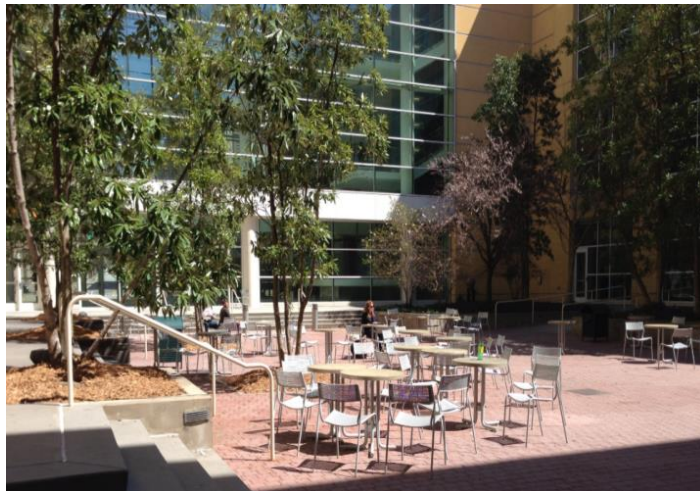they feel among their peers in this location.

Figure 17. School of Business Courtyard, Image submitted by SQ

The courtyard of the School of Business was identified by SQ and BB as a space where they like to spend time and interact with classmates. Both participants described the benefit of "running into people" in this outdoor space.

Student organization offices, residence halls, and academic programs defined the networks that many of the students participated in. Academic alliances were evident in many of the conversations and the influence of intentional space design emerged clearly with the School of Business students. As stated earlier, HH shared that he finds himself there even on days when he does not have class.

Consistent with this theme of interacting through academics, students indicated a preference for spaces that considered the rigor through the provision of tables, power outlets, computers and other work tools. Several of the participants expressed appreciation for non-academic spaces that were conducive for study. For example, the student organization office and the student union provide access to the tools students described as essential in completing assignments in between classes and organizational responsibilities.

Interacting in recreational spaces. Two of the three male students selected recreational spaces as preferred spaces and emphasized their social value. In one example, LV described the university outdoor recreation fields as a place to unwind, relieve stress, and spend time with friends. He adds:

> *This area is another one that's not academic. It's just sports. It's another way to enjoy yourselves, to build community with your friends. It's, again, just a big community thing. All the fraternities come, and they're playing baseball and softball. There's all the sports teams. Marching band actually rehearses there. It's a big community space. It is multi-purpose, not just one sport. The field has markings for at least ten different sports on it. The rugby guys are playing in one*

corner, there's a frisbee game in another. Everybody is brought together in this

space for what they do.

Figure 18. Outdoor Recreation Fields, Image Submitted by LV

This is an outdoor recreation area that LV highlights as a place where significant student interaction takes place. The space is labeled with markings for 10 sports and is filled with multiple, concurrent activities well past midnight.

     In addition to the outdoor recreation fields, Francis University has tennis courts an

two outdoor sand volleyball courts. VV confessed that he is not very athletic but that he

enjoys playing sand volleyball with his small circle of friends and takes advantage of this

particular court whenever his schedule permits. Ironically, the other court is located

closer to his fraternity house but he prefers this one because it is surrounded by residence

halls and feels more private.

Figure 19. Volleyball Courts, Image Submitted by VV

The personality dimensions introversion and extroversion emerged through the visual and interview data, and the recreational spaces photographed and discussed by LV and VV demonstrates this difference. LV shared that he is an extrovert; he enjoys processing ideas with others and prefers spending time with groups. His recreational description is one example that highlights his preference for spaces with multiple, simultaneous activities and large groups of students. VV's recreational image and description convey his preference for smaller, intimate gatherings with close friends. He stated:

> *That's why I'd be interested to have done this a year ago and see, because I think over the last year, I've been going through a slight personality change—just a baseline shift in the whole introversion versus extroversion. I have become much more of an introvert. I love talking one-on-one like this. I do not like the crowds, and being with people. If I hang out with people, I need it to be on a one-on-one.*

Campus Spaces That Discourage Interaction

As students shared details about the spaces they spend time with others, I also asked them to describe spaces that discourage interaction. Three of the nine participants mentioned specific academic facilities and two named the Student Union as places that made peer interaction very difficult. BZ and JB described one facility that they felt

discouraged student interaction due to inadequate space and seating to facilitate connections and conversations between classes. JB explained:

> *I have all three of my classes in Karr Hall. Man, when we get out of class it is like – "Oh you wanna talk?" "Let's go stand outside." Once again it's another one where like when all the classes get out it is just craziness in there. There's like 20 classrooms and a giant lecture hall over there. It's just you're bumping into everyone and there is nowhere to sit. It clogs up and the building is so over capacity. The second story looks just like it, and like I said usually it's really dark and dingy. Like equally crowded. I mean it's just truly only a classroom building, which I'm not sure is common anymore. It is all students, and when that lets out it is just madness.*

BZ also described her photograph of the same classroom building:

> *This is Karr Hall, a building that I avoid. Anything to do with that building, if there's an event there, I'm like, "Do I really wanna go to this event?" I think, especially with the hallways, it seems like such a big area and there are only four chairs. I feel like they could put seating there or do something with it so it seems less empty.*

Figure 20. Image Submitted by JB   *Figure 21.* Image Submitted by BZ

Here are two images of Karr Hall. JB and BZ discussed the absence of seating and gathering spaces in the common areas of this large classroom building.

In another example, SQ highlighted the potential that exists for increased interaction in Brake Hall:

> *It is right in the center of campus and people pass through it extremely often. However, there are no places to lounge or study. This location has a lot of space and the potential to become awesome.*
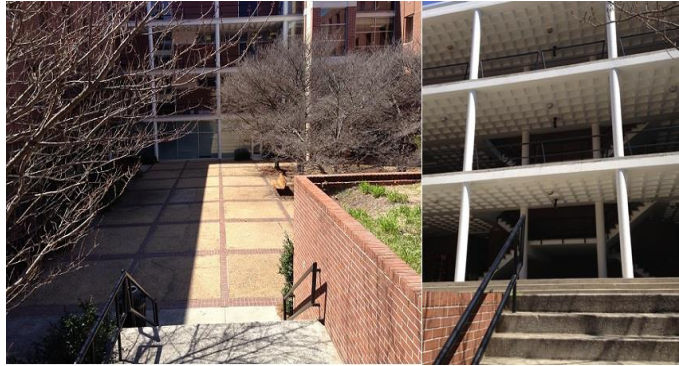

Figure 22. Brake Hall, Image Submitted by SQ

    The Student Union is another example of a space that participants say discourages

interaction. HH shared that he does not spend time in the Student Union unless he has

business to take care of there because the facility is overcrowded, making interaction

difficult. VV agreed and stated that the facility has become transactional for him as he

tends to use the services available and not spend much time there.

How Students Experience the Physical Campus Environment

    The fourth research question explored how participants experience the physical

environment of Francis University and the theme, *spaces of pride*, emerged through the

 data.

    ***Spaces of pride*.** Francis University is highly regarded for their academic

reputation and many of the faculty are top researchers in their respective fields. All of the

students expressed sincere fondness for their school and campus. They indicated bonding

with others over the academic rigor, physical beauty of the campus, and the athletic

programs.   The intercollegiate athletic facilities at Francis University are well appointed

and most of the division I teams have large alumni and regional fan bases. Two of the

participants highlighted the pride, history, and community that they experience at athletic

events. LV describes an interesting athletic facility discovery as he prepared to sing the

national anthem at a football game:

> *It's the original, 1920s stadium! These are the pillars that support the stadium*
>
> *that you see today. Very few people know about this. What do you know; the*
>
> *whole original stadium is under there, completely preserved. —it's just I feel so*
>
> *connected with the old school. A lot of times you just destroy things and build new*

things, and that's the end of it. Think of how many thousands of people sat in

those seats.

Figure 23. Original Football Stadium, Image Taken by LV

SS, like many of the participants, shared that she had not missed a home football game since her arrival at Francis and commented on the fanfare and camaraderie that envelopes the campus on game days. Here she describes the football energy:

> *It's that Francis love, I think. It's when you're in the stadium and you are singing*
>
> *the fight song, it doesn't matter what year you are. It doesn't matter what your*
>
> *GPA is. It doesn't matter what you're gonna be doing over the weekend or what*
>
> *you're gonna be doing after you graduate. You are all there, and you're all*
>
> *cheering for a team, and you're all there because you love your school. That just*
>
> *makes me so excited and so happy.*

Physical Space and Safety

The fifth research question related to the physical environment as the participants considered physical and psychological safety. Students expressed general feelings of safety on campus with one notable exception. Three students mentioned the School of

Business, located on the perimeter of campus, as an area of safety concern. According to the students, the space lacks adequate safeguards to prevent public access and discourage theft.

With physical and psychological safety, one umbrella theme, *territoriality*, and three sub themes emerged (a) *control,* (b) *vulnerable,* and (c) *restoration*. Many of the students expressed feeling safest in their residence halls and the importance of an increased focus on mental health issues on campus was mentioned by two of the participants. Academic competition was a subtle thread in the participant interviews and the mental health focus directly correlated with helping students achieve and maintain the psychological balance necessary for success at Francis.

Control. The ability to control access to their personal space was a key variable for two participants as it related to physical safety. When asked where he felt the safest, BB responded:

> *Probably my apartment building, just because it's secured all the time. You're*
> *not going to get in without a campus card unless someone lets you in. And then,*
> *you have double deadbolts on everything.*

AA agreed and mentioned the importance her ability to secure the door of an office she spends time in after hours:

> *Okay, I generally feel really safe. I'm probably like an outlier, cuz I usually feel*
> *safe everywhere. But—the safest place on campus? I feel pretty safe in the SGA*
> *(*Student Government Association*) office, in that back workroom. I can lock that*
> *door. I've done it before.*

Vulnerable. BB was a victim of theft in the School of Business and expressed feeling vulnerable in that facility. He states:

> *Something about that building now just completely feels unsafe, because it's an unsecured building, except for late at night. Anybody on the street—and it's as close to the street as you can get on campus, basically—so people will just walk in, grab student's stuff and walk out. I would feel safer if, I don't think it's that big of a hassle, to have to just card in.*

AA described a picture she submitted of a lounge in the Student Union where she feels unsafe:

> *I look at this and I really dislike it. I'm not quite sure why. Maybe it's because of the window. It's kind of creepy. Everyone from outside can see inside. Generally, I love windows. The Learning Commons windows work really well, because they're up high, so you can look down. But this is very open….people can run through it. It just doesn't feel secure, I'll put it that way.*

Overall, the participants shared that they generally felt safe on campus. For example, VV expressed feelings of comfort and security in many spaces on campus:

> *I've been bleeding (school colors) since I was in diapers. My dad was an alumnus. I've been literally on campus—I've come to games as a baby. There's not a space that I will intentionally avoid.*

Restoration. All of the participants discussed environments that provide rest, refuge, and the opportunity to recharge. Academic stress was mentioned frequently and several of the participants articulated the importance of taking breaks from the academic

rigor and demands of student organization leadership. In a great example, LV talked about his safe place:

> *The racquetball court [laughing], to be completely honest, because I just forget about everything else. I walk in and nothing bothers me. I'm in this quiet room, a white room. My favorite thing about this space is that I walk in there, I close the glass door and all the noise from the outside world is gone. There's no windows and all the outside world is gone and for that two hours, all that matters is just playing that sport with my friends. That's what I love [about] racquetball, is it completely shuts out. Yeah. It just, it cleans me. It cleans my mind, because I don't worry about anything.*

When asked about their favorite places to spend time, eight of the nine participants selected outdoor spaces. It was clear that these spaces are a vital element of the campus experience and student life. AA describes the significance of one such space:

> *My favorite place on campus is the fountain, always and forever. Yeah. It's calming. I really like water. I've always liked water, so the fountains are calming. And it changes, it transforms, like night and day. At night, the colors change. During the day, you'll see rainbows in it and you can see the skyline, and you can see the trees by the walkway. It's just like the most perfect view. I have always, ever since forever I have always sat there. I will do my deepest thinking and writing at the fountain.*

BB shared similar thoughts about this popular campus water feature:

> *The fountain I love just because I like being outside in general. But certain places are like really, really busy. There's so much activity that it's*

hard—when I'm outside, usually I study or I'm just relaxing. If I have people

going crazy next to me, like there's activity on the, on the walkway, but over here

you have the calm of the water, which is always great. We're not supposed to

play in the water, but sometimes you dip your feet in and it's awesome. It's just

really relaxing. I'm a huge fan of water. Being in (State), unless you're at Lake X

or Lake Y, there's not a whole lot of it. It's nice to have our own little area.

Spaces of Diversity and Inclusion

The sixth and final question was initially included to explore how students experience the physical spaces of Francis as they consider diversity and inclusion. This proved to be a difficult topic to address with study participants. At Francis University, White and Asian students make up 83% of the undergraduate and 88% of the graduate student population. The participant pool was diverse, but did not contain any members of underrepresented (e.g. Black, Hispanic, Latino, American Indian,) cultural groups and sexual orientation is not openly discussed at Francis. I attempted to address issues of culture and sexuality in particular with two of the participants and was unsuccessful each time.

Conclusion

In this study I explored the role of physical space on student involvement and community at Francis University. Through images and detailed descriptions, the findings indicated that a variety of natural and built spaces impact student life, facilitate student involvement, and contribute to campus community engagement. In the next chapter I will discuss my findings, share implications, outline the limitations of this work and suggest future research opportunities.

CHAPTER 5
DISCUSSION

Community building and student engagement are desirable elements of the
university experience. When successful, healthy learning communities are formed that
contribute to student persistence and academic success (Kuh, Cruce, Shoup, Kinzie &
Gonyea, 2008; Palmer, Maramba & Dancy, 2011; Tinto, 1993). The physical
environment serves as the context for these life-shaping experiences; however, there is a
paucity of empirical research on the topic. This qualitative dissertation sought to explore
and understand the role of the physical campus environment on student involvement and
community at Francis University. In the previous chapter I shared the findings from this
qualitative study on physical space and community at Francis University. Presented
thematically by research question, the findings conveyed the participants' perceptions of
the campus environment.

Francis University is located in the heart of a large southern city. The academic
buildings, libraries, residence halls, and student life facilities are balanced by green space,
mature trees, and newly installed outdoor abstract sculptures. The campus grounds are
well maintained and the walkways are busy well into the night with pedestrian and
vehicular traffic. All of the participants were very familiar with the campus and expressed
active involvement in a variety well established social networks.

The primary research question considered the role of the physical environment on
how the participants' experienced community on campus. The students reported that they
experienced a strong sense of community in outdoor spaces, student organization offices,

and through co-curricular activities. This finding supports the work of Kenney, Dumont, and Kenney (2005) as the spaces conducive for building community provided the space and opportunity for the study participants to make valuable connections with their peers and establish meaningful relationships. The importance of spending time alone was also mentioned by most of the participants. Cognitive clarity, creativity, and reflection develop through times of solitude (Bogue, 2002; Augustin, 2009), and Francis University offered several spaces where students studied, read, or engaged in deep thought.

The second research question explored involvement on campus. Participants expressed the powerful role campus involvement played on feeling included and persisting in the Francis community. This finding aligns with Schlossberg's (1989) constructs of mattering and marginality. Mattering is accomplished when students receive appropriate levels of attention, importance, dependence, ego-extension, and appreciation. These concepts were clearly articulated as the students described their initial transitions into Francis and participation in other novel university experiences. Participants also shared that student involvement led to increased leadership and personal development opportunities (Pascarella & Terenzini, 2005), and they cited the importance of collaborative student organization spaces in facilitating strong connections to their peers and the campus.

The third research question considered the role of the physical environment in student interaction. As established earlier, Francis is a highly selective university with top performing students, and the academic rigor permeated through each participant interview. Students discussed time spent studying with peers or participating in group projects in a variety of academic and non academic campus spaces, often overnight.

Consistent with the findings of Palmer, Maramba, and Dancy (2011) in their work with students in STEM (Science, Technology, Engineering and Mathematics) degree programs, the participants in his study shared that their peers provided a great deal of academic support and this interaction led to strong learning communities. The students in this study also emphasized the value of facilities and outdoor spaces that supported academic activities with adequate amenities for collaborative group work (e.g. tables, power outlets, and reliable wireless internet access).

Outdoor recreational spaces were also identified and photographed as interactive spaces. The participants shared that they engaged in planned and spontaneous recreational activities in the green spaces and fields provided by the university. The interview and visual data reflected sincere appreciation for the campus layout and outdoor recreation spaces in spite of the university's urban location.

The fourth research question examined how students experienced the campus physical environment, and pride resonated clearly through the visual and interview data. The history, traditions, and academic reputation of Francis University were all points of pride for the participants, however, the athletic program and facilities elicited unparalleled emotion during the interviews. According to the participants, the campus community is united through athletic pride and support for the team.

The fifth research question considered physical and psychological safety on campus. The participants expressed feeling physically safe overall, were all very comfortable in many campus spaces and most struggled to name a place where they felt unsafe or vulnerable. However, the natural desire to control and defend their spaces was a

key finding. Consistent with Strange and Banning (2004), the participants conveyed that safety is an important prerequisite for community engagement.

The participants experienced psychological safety in restorative and third spaces (Oldenburg,1982) on campus. Participants described outdoor restorative spaces where they enjoyed a water feature, took in the scenic views of the city, or relaxed between classes in shaded area on the campus green. Students expressed sincere appreciation for these spaces and spoke eloquently about the personal value they provided. Third spaces, the locations beyond work and home, are inherently more social and were also well represented among the participants' images. Musical rehearsal spaces, student organization offices, coffee shops, restaurants, recreation facilities, and the Student Union were cited as places were students choose to go for social interactions and emotional connections.

The final research question, intended to consider issues of diversity and inclusion, did not yield any findings. This topic proved difficult to discuss with participants and while I was disappointed, I was not surprised as sensitive issues are difficult to access at Francis.

This study provided data to sufficiently respond to the first five research questions. Moreover, the findings of this study aligned with Strange and Banning's (2001) model of hierarchical designs and purposes, the theoretical framework that guided this study. The data demonstrated that as students experienced physical safety and felt included, they began to seek opportunities to engage in campus activities. Once engaged and actively participating in campus employment, academic initiatives or other co–curricular programs, full campus community membership developed. For the study participants,

community membership contributed to persistence (Schlossberg, 1989), created leadership development opportunities, (Pascarella and Terenzini, 2005) and contributed to academic success (Kuh, Cruce, Shoup, Kinzie & Gonyea, 2008; Palmer, Maramba & Dancy, 2011; Tinto, 1993). The natural and built environments influenced how students discovered, built, and sustained community at Francis University.

Implications

The findings of this study highlight several implications for higher education student administrators and campus planners. All of the participants discussed the importance of outdoor space in contributing to interactions, providing opportunities for restoration, and providing important recreational experiences. Consistent with Joye (2007), this study demonstrated that water features, green spaces, courtyards and other spaces created positive emotional and physiological outcomes. The participants in this work highlight the influence of the natural environment on how students interact and experience community. The intentional provision, design, and upkeep of these spaces are critical to campus life and should be considered.

The successful engagement of students in campus life leads to feelings of belonging and community membership. Consistent with previous research, the intentional efforts to connect students within the first few weeks of the semester are valuable. Three of the participants recalled and credited early engagement experiences for their community membership, persistence, and academic success. Physical space is an important consideration in student involvement as the students highlighted the intentional placement of the involvement fair in the primary campus walkway and the open views

into residence hall lounges as helping them make important connections and establishing a sense of belonging on campus.

The participants in this study conveyed the significance and value of shared student organization office spaces on involvement, leadership development, and campus community engagement. Shared student organization offices and centralized resource centers provide opportunities for collaboration and exposure to diverse cultures, perspectives and thought. Here again, intention and space design are key implications and considerations for campus planners and student services administrators.

Many of the students in this study expressed appreciation for spaces that permitted them to casually run into other students, faculty, and campus administrators. These spontaneous interactions can contribute to student development, community engagement, and enhancement of campus life (Kuh, Kinzie, Schuh, Whitt and Associates, 1991). With this, campus administrators provide opportunities for students to establish a sense of place on campus. Places are campus spaces imbued with meaning and emotion and placemaking is an important outcome in this context. The power of 10, a placemaking concept developed by the Project for Public Spaces, has relevance here. The power of 10 suggests that preferred spaces offer 10 unique activities or 10 reasons to be there. The findings of this work suggest that students prefer and would be drawn to these types of spaces. This concept should be considered in the design and programming phases of outdoor spaces, recreational centers, student unions, and other student life facilities.

In this study, no two spaces offered the same value or meaning to participants. It is important to provide a diverse portfolio of spaces to support the learning styles, personality dimensions, behavioral patterns, and activities that support campus life. Well

designed campus spaces consider the unique needs, patterns, habits and other demographic variables of their specific student population.

Limitations

This study has several limitations that are worth noting. Data for this work was collected from one campus, and while this provides detailed information about this particular setting, the opportunity to compare findings with additional campuses would have been very valuable. Additionally, Francis University enrolls a particular type of student and data from this work may not be easily generalized. The campus culture that exists with these high achieving, entrepreneurial, STEM focused students is unique.

The lack of data surrounding issues of diversity and inclusion is a limitation of this work. This topic was hard to access for many of the following reasons: (a) I failed to include a direct question related to diversity and inclusion on the protocol. (b) the Francis University climate is polite, but issues of diversity and inclusion are not often discussed, and difficult to access (c) the sample size was small and did not reflect the full range of student diversity at Francis. In a future study, I will address this topic more deliberately and be more intentional and persistent in my recruitment efforts.

Community and student involvement are outcomes that could be influenced by other aspects of the campus and the student's life. This work did not account for the intrinsic motivation, self-efficacy, academic engagement, or other concepts that can lead to campus involvement and community engagement. I recognize that any combination of these concepts or others could have influenced the experiences of the participants of this study.

Suggestions for Future Research

The findings from this work yield important information about the role of physical space in student involvement and community on campus, and encourages additional research in this area. There is a growing body of empirical work about learning spaces, but little is known about non-instructional spaces. Replication of this study on other campuses would yield valuable insight into student life and the impact of campus design.

This work focuses on the perceptions of experienced students that had successfully navigated the campus. They all persisted, were successful, and realized community membership. The exploration and consideration of campus spaces on community with a broad cross section of the student population would generate valuable data and potentially highlight areas of improvement for younger students that were experiencing difficulty engaging in the campus culture. Additionally, the campus community and engagement needs are different for graduate students. An exploration of the graduate student experience would be beneficial on a campus like Francis with growing domestic and international graduate student populations.

The unexpected emergence of the personality dimensions of introversion and extroversion presents another research opportunity. Students are attracted to spaces that meet their individual needs for socialization, recreation, study and solitude. The consideration of this concept in space preferences will be informative.

Conclusion

Through visual and interview data, participants in this study reported that the natural and built environments provided them with various spaces to make meaningful connections with their peers and become engaged members of the academically focused learning community at Francis University. The findings highlight the importance of diverse indoor and outdoor spaces intentionally designed to facilitate social connections and support academic success. These findings provide an opportunity for discussion and strategic partnerships between student services administrators, design an construction professionals, and campus planners as the physical environment has significant implications on student life.

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APPENDIXES

APPENDIX A

RESEARCH TIMELINE

Date	Activity	Notes
March 3, 2013	Email campus colleagues to request recommendations	
March 7 – 18, 2013	Interested students replied and signed up for research review sessions	
March 25 - 29, 2013	Research review sessions conducted	I conducted individual meetings with interested students to outline the research project, study goals, timeline, tasks involved, campus policies, and informed consent.
March 25 – April 9, 2013	Visual data collection	
April 8 – 15, 2013	Semi – structured interviews	
April 23 – May 8	Member Checking	I emailed interview transcription to participants and requested comments, feedback and verification.

APPENDIX B

EMAIL TO CAMPUS COLLEAGUES

Dear _____,

As a doctoral student at Georgia State University, I am conducting a research study to explore the influence of physical space on student involvement and community building on campus. This project will employ visual data collection methods and I am looking for a total of 8 – 12 students to participate in the project. Interested students will be given cameras and asked to photograph places on campus related to my research questions about community on campus. I will also conduct 60 – 90 minute interviews with each student to discuss their photographs. The project will conclude before April 20, 2013.

I am seeking your assistance in identifying students that are well suited for this project. I am looking for students that **a.** have been on campus for at least two years, **b.** would be willing to participate, and **c.** would potentially enjoy the experience.

Attached is a letter that outlines the project. Please forward this letter to three - four students that you feel could be a good fit for this study. I am happy to provide you with any additional information related to this request.

Thank you in advance for your support.

Kim

APPENDIX C

STUDENT RECRUITMENT EMAIL

Greetings,

My name is Kim D. Harrington and I am a doctoral student in the Educational Psychology program at Georgia State University. I am conducting a research study on the influence of physical space on student involvement and community building on campus. For the purposes of this project, I am looking for students that are willing to take photographs of campus spaces related to my research questions, share the photographs with me, and participate in a semi structured interview to discuss them. The project will take place this semester and participation in the project will require up to 6 total hours of your time over the next 4 weeks. The project will begin after spring break and conclude prior to April 20, 2013. If you decide to participate, I will give you a $10 Starbucks gift card at the conclusion of the project for your time. If you are interested or would like to learn more about the project please contact me at (my campus email) to set up a meeting to discuss the details of the study. Research goals, timeline, and additional information about the project will be reviewed at that time.

Thank you,

 Kim

APPENDIX D

SCRIPT FOR INDIVIDUAL RESEARCH REVIEW SESSIONS

Hello!

Thank you for taking this time to meet with me. As I shared in the email, this research project is being conducted as a part of my doctoral studies in Educational Psychology at Georgia State University. This is a visual project and I am interested in the role physical spaces play in student activities, student life and campus involvement. The project will commence immediately following this meeting and will require 6 – 8 hours of your time between now and April 20, 2013.   I am asking 8 – 12 undergraduate students to take 1-15 photographs of where they spend time on campus, other than classrooms and labs and 1-15 photographs of where they avoid spending time on campus, other than classrooms and labs. You are welcome to take photographs with a personal photographic device (cell phone or digital camera) or I have a disposable camera for your use. If you are using your own camera, please email the images to me at kim.harrington@gatech.edu before midnight on April 3, 2013. If you would prefer to use a disposable camera, please return the camera to my office on the 3rd floor of the Student Center. I ask that you do not share the images or post them online until after the project concludes. I will review the photographs and invite you to meet with me individually to discuss your photographs the week within the first two weeks of April. These tape recorded sessions will last 60 – 90 minutes and I will ask you to describe the images and tell me about your experiences on campus.   I will have the tapes transcribed and share typed copies of your comments for your review, comment and feedback.   At the conclusion of the project, I will provide you with a $10 Starbucks gift card.
Does all of that make sense? Do you have any questions about what we have discussed so far?

Since this study involves photography, there are a few guidelines that I would like to review with you.

In compliance with the GSU Institutional Review Board guidelines, please be certain not to take photographs that include people that can be identified. Any such photos will be destroyed immediately. Please keep this important guideline in mind throughout the project.

Participation in the research is voluntary. You do not have to participate and may withdraw at anytime. If you feel uncomfortable at any point during the project, you may contact my primary advisor or me. I have prepared a packet with our contact information for your reference. Additionally, I have included the number for the Dean of Students' and the Counseling Center in the resource packet.

In this study you will not have any more risks than you would in a normal day. Additionally, there may or may not be a personal benefit to participation in this study. My goal is to understand the role physical spaces plays in student involvement, campus life and overall community building.

Your confidentiality is important and your records will be kept private to the extent allowed by law. My two advisors and I will have access to your records. You will be given a pseudonym and the study will be assigned a number.
Here is a tentative time line and estimated time allotment for the project

Date	Research Activity	Estimated Time Allotment
March 24 - 27	Research review sessions	15 minutes
March 24 – April 3, 2013	Photographs taken by student participants	180 minutes (3 hours)
April 3, 2013	All photographs (labeled with date, time and location) emailed to kim.harrington@gatech.edu by midnight	45 minutes
April 4, 5, 6, 12, 13, 14	Individual, 60 – 90 minute discussions about photographs	90 minutes (1.5 hours)
April 15 - 20	Individual participant review and comments on discussion transcript	30 minutes (.5 hour)
April 21, 2013	Transcript comments emailed to Kim.harrington@gatech.edu by midnight	

Do you have any questions, comments or concerns about anything I have shared so far? If not, please review this *Informed Consent Form.* Your signature indicates that you would like to participate in the research project. Again, please know that your participation is voluntary. I will scan and email a copy of the signed form for your records. Your resource packet includes the following:
- A copy of this script
- A copy of the informed consent form
- The research timeline
- Contact information for me, Dr. Ann Kruger, the Dean of Students' Office, the Counseling Center and the Campus Police.
- Several FAQs about the research project

APPENDIX E

INFORMED CONSENT

Georgia State University
Department of Educational Psychology and Special Education

Informed Consent

Title: Community on Campus: The Role of Physical Space

Principal Investigator: Dr. Ann Cale Kruger
Student Investigator: Ms. Kim D. Harrington

I.   Purpose:

You are invited to participate in a research study. The purpose of the study is to investigate the influence of physical space on student involvement and community building at Georgia Tech. You are invited to participate because you have been on campus for at least 4 semesters. A total of 8-12 participants from Georgia Tech will be recruited for this study. Participation will require 6–8 hours of your time and the project is scheduled for spring 2013.

II.   Procedures:

If you decide to participate, you be asked to take 1-15 photographs of where you spend time on campus, other than classrooms and labs, and 1-15 photographs of where you avoid spending time on campus, other than classrooms and labs. You may use your personal photographic device or I can provide a disposable camera for your use.

Do not take photographs that include people that can be identified. Any such photos will be destroyed immediately. Please keep this important guideline in mind throughout the project.

You will be asked to submit all of the images to Kim Harrington via email. Please label the images with the date, time and location. If you elect to use a disposable camera, please return the device to her, and she will have the images developed. Do not post, print or share the images until after the conclusion of the study. After she receives the images, Ms. Harrington will invite you to meet with her to discuss your photographs. The conversation will be audio recorded, and she may take a few notes. She will provide you with a typewritten copy of the conversation and submit it to you for review. You will be asked to review the document for accuracy and to make any additional comments related to the research project. When the transcript is returned, you will recive a $10 Starbucks gift card.

Proposed Timeline

Research Activity	Estimated Time Allotment
Research review sessions	30 minutes
Photographs taken by participants (Georgia Tech students)	Up to 180 minutes (3 hours)
All photographs (labeled with date, time and location) emailed to kim.harrington@gatech.edu by midnight	45 minutes
Individual, 60 – 90 minute discussions about photographs	90 minutes (1.5 hours)
Participant review and comments on discussion transcript written and emailed to Kim.harrington@gatech.edu by midnight	60 minutes (1 hour)

III.   Risks:

In this study, you will not have any more risks than you would in a normal day of life.

IV.   Benefits:

Participation in this study may not benefit you personally. Overall, we hope to gain information about physical space, student involvement and campus community.

V.   Voluntary Participation and Withdrawal:

Participation in research is voluntary. You do not have to be in this study. If you decide to be in the study and change your mind, you have the right to drop out at any time. You may elect not to take photographs or stop participating at any time. Whatever you decide, you will not lose any benefits to which you are otherwise entitled.

VI.   Confidentiality:

We will keep your records private to the extent allowed by law. The research team (Dr. Ann Kruger and Kim D. Harrington) will have access to the information you provide. Information may also be shared with those who make sure the study is done correctly (GSU Institutional Review Board, the Office for Human Research Protection [OHRP]). We will use a pseudonym rather than your name on study records. The information you

provide will be stored on password- and firewall-protected computers. All printed material (photographs, transcripts, etc.) and audiotapes will be stored in a locked file cabinet in the student investigator's home. All material linking you to the study (pseudonym key, audio transcripts, etc.) will be destroyed one year after the study is presented. Your name and other facts that might point to you will not appear when we present this study or publish its results. The findings will be summarized and reported in group form. You will not be identified personally.

VII.   Contact Persons:

Contact Dr. Kruger (at 404-413-8314 and ackruger@gsu.edu) or Kim D. Harrington (at 770-685-3434 and kim.harrington@gatech.edu) if you have questions, concerns, or complaints about this study. You can also call if you think you have been harmed by the study. Contact Susan Vogtner in the Georgia State University Office of Research Integrity (at 404-413-3513 or svogtner1@gsu.edu) if you want to talk to someone who is not part of the study team. You can talk about questions, concerns, offer input, obtain information, or suggestions about the study. You can also call Susan Vogtner if you have questions or concerns about your rights in this study.

VIII.   Copy of Consent Form to Subject:

We will give you a copy of this consent form to keep.

If you are willing to volunteer for this research and be audio recorded, please sign below.

_____   _____

Participant   Date

_____   _____

Principal Investigator or Researcher Obtaining Consent   Date

APPENDIX F

INTERVIEW PROTOCOL

Demographic Data
- o   Date
- o   Time
- o   Pseudonym
- o   Academic Program
- o   Year in School
- o   Transfer Student
- o   Residence – Off/On/Greek
- o   Culturally Identify
- o   Home Country/State

Opening Questions
- o   How was the experience?
- o   How did you select spaces to photograph?

Spaces Participants Chose to Spend Time In
- o   What attracts you to this space?
- o   What types of things do you do in this space?
- o   How much time do you spend here each week?
- o   What about this space works?
- o   Do you spend time here with others or alone?

Spaces Participants Avoid
- o   Why do you avoid this space?
- o   What would make this space more inviting?

General Questions
- o   Where do you feel the safest on campus? Most vulnerable?
- o   What is your favorite place to hang out with friends?
- o   Describe your on campus involvement?
- o   How has the campus physical environment affected your involvement?
- o   What campus spaces encourage peer interaction?
- o   What campus spaces encourage interaction with faculty and staff?
- o   Where on campus do you feel most connected to other students?
- o   Where on campus do you feel most connected to the university?
- o   Is there anything you would like to share about community on campus?
- o   Do you have additional comments about the campus, physical space or this project?

APPENDIX G

MATRIX LINKING FOCUS QUESTIONS TO METHODS

Primary Question: What role does the campus physical environment play in students' experience of community in college?

Focal Question	Method	Interview Questions
What places on campus do students verbally nominate as those that encourage or discourage interaction?	Participants will be asked questions about the physical spaces (indoor and outdoor) on campus where they do or do not spend time with others.	• What spaces on campus encourage/discourage interaction? • What is your favorite space on campus to meet others? Study with others? • What spaces help you feel connected to the other students?
What places on campus do students photograph as those that encourage or discourage interaction?	Participants capture 10 - 15 images of physical spaces (indoor and outdoor) on campus where they do spend time with others and 10 - 15 images of physical spaces where they do not spend time with others.	
What are the features of the spaces that students photograph?	Students will be interviewed about their images. Special attention will be paid to psychological and physical safety as well as diversity and inclusion.	• What is going on in this photograph? • What type of things do you do in this space (or not)? • Are you comfortable here? Why? Why not? • What about this space attracts you to it? (or keeps you from it)? • How long do you typically spend here? • What keeps you here? • What about this space makes you feel safe (or not)? • Why do you feel welcome/ included in this space (or not)? • Why do you avoid this space?