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The impact of physical space in the College Union and students' sense of community on campus

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THE IMPACT OF PHYSICAL SPACE IN THE COLLEGE UNION AND STUDENTS' SENSE OF COMMUNITY ON CAMPUS

by

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Abstract

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2018-2019
Andrew Tinnin, Ed.D.
Master of Arts in Higher Education

The purpose of this study was to determine the impact that physical spaces in The Chamberlain Student Center had on participants' sense of community on campus. A survey was distributed to 600 undergraduate students to determine the extent to which participants believed various locations within the facility either enhanced or diminished their sense of community on campus. Of the 600 surveys distributed, 73 responses were collected, yielding a response rate of 12%. Results show that there is no statistically significant relationship between any specific space in The Chamberlain Student Center. However, data showed that there is a relationship between students that are enrolled in more credit hours, students that report having a positive experience in The Chamberlain Student Center, and students that believe Rowan University does promote building campus community, and whether or not The Chamberlain Student Center plays a major role in building campus community.

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Chapter I

Introduction

Background of the Problem

For college campuses around the world the college union provides a space for students to engage and build community. Within *The Role of the College Union* (ACUI, 2018) is the idea that the college union is a space that provides opportunities for students to gather both formally and informally, in hopes of building meaningful relationships, and community. Understanding how services offered within a college union impacts how students engage and build community is an important step in finding ways to better the college union facility. While research is limited in this area, there is little doubt as to the impact the college union facility can have on the student experience.

Statement of the Problem

Understanding how the use of physical spaces on college campuses impacts the students who use the space is not a novel idea. For example, the use of physical spaces, such as libraries and classrooms has been shown to have a large impact on the college selection process for students (Price, Matzdorf, Smith, & Agahi, 2003). Additionally, research shows that students are able to identify physical characteristics of their classrooms, and how these characteristics either positively or negatively impact their learning (Veltri, Banning, & Davies, 2006). However, very little research exists studying the impact that the physical space of the college union has on students. More specifically, there is little research that attempts to understand how the physical space of the college

union impacts students' sense of community on campus. With many college unions providing services to multiple student populations, understanding the impact that college unions have on building community on campus is becoming increasingly more important.

Significance of the Problem

This study examines how the use of the physical space of The Chamberlain Student Center impacts student's sense of community on campus at Rowan University. The results of this study may be helpful in providing more data as to what specific aspects of a college union have a greater importance when it comes to developing campus community. Additionally, results of this study may also be helpful throughout the process of facility renovations. Knowing how spaces that students deem most important when it comes to a sense of community can be manipulated to be more engaging, and inclusive may open new avenues to facility updates.

Purpose of the Study

This study sought to add to the literature by providing more research on the impact of physical space within The Chamberlain Student Center, and how this space impacts undergraduate students' sense of community on campus at Rowan University. Furthermore, this study examined how undergraduate students perceive The Chamberlain Student Center facility, and how the facility relates to their perceptions of campus community. Students participating in this study were asked to identify specific aspects of the Chamberlain Student Center facility that either positively or negatively impact campus community and were asked to compare how The Chamberlain Student Center

facility compares to other buildings on Rowan University's campus in building community.

Assumptions and Limitations

The scope of this study was limited to undergraduate students attending Rowan University in Glassboro, New Jersey during the 2018-2019 academic year. Limitations within this study are that the sample size may not be generalizable to the population, and that the survey was distributed using an online software that may have created technical difficulties for participants. This study assumes that all participants answered the items on the survey truthfully. This study also assumes that all participants in the study have entered the Chamberlain Student Center facility. It should also be noted that researcher bias within the findings might be a result of past experience working in a college union facility.

Operational Definitions

1. The College Union: A physical building on college campuses that provide many services for students, faculty, staff, and the surrounding community. These services include, but are not limited to, information desks, bookstores, meeting spaces, departmental offices, eating spaces, and print centers/computer labs. The College Union may also be termed as a Student Center, Campus Center, and Student Union.
2. Sense of community: For the purposes of this study, sense of community is defined as a feeling that members have towards one another, and to the groups that they belong (McMillan & Chavis, 1986).

3. ACUI: Association for College Unions International. ACUI is an international organization that brings schools and administrators from seven countries together with a mission of building campus community.
4. Physical spaces on campus: For the purposes of this study, physical spaces on campus will be defined as, features of a physical space such as, layout, location, and arrangement of space, facilities and campus artifacts (Strange & Banning, 2015 p. 15). Examples include, the placement of furniture, location of information desks, print center, meeting spaces, dining facilities, mailrooms, etc.

Research Questions

This study examined the following questions:

1. Is there a relationship between the physical space of a college union and student's sense of community on campus?
2. Is there a statistically significant difference between how the physical space of a college union impacts student's sense of community, and how other physical spaces on campus impact student's sense of community?

Overview of the Report

Chapter II provides a review of the literature most relevant to understanding the significance of this study. The review consists of research revolving around the use of technology in the classroom, as well as social media, academic achievement and previous research that focuses on the impact of multitasking in class.

Chapter III provides details regarding the procedures and methodologies used in this study. Included in this chapter is a description of the population and sample, details on data collection, data analysis, and sample selection.

Chapter IV presents the findings and results of the study. The focus of this chapter is to revisit the research questions posed at the beginning of the study and summarize the data obtained in the table.

Chapter V summarizes and discusses the major findings of the study, renders conclusions and offers recommendations for practice and future research

Chapter II

Literature Review

This study seeks to better understand how the physical space of a college union impacts student's sense of community on campus. First, I will introduce the role of the college union, and examples of services that are common among many college unions. Next, I will transition into literature that expands on what building community means, and how it has been defined in previous research in previous research. Additionally, physical spaces in higher education, and the college union will provide a better understanding as to why this area of research is important. In particular, this section will identify how physical spaces on a college campus impacts college selection, and how student perceptions of facilities impact their perceptions of the space they interact in. This section will also address how data regarding the physical space of a college union is lacking and provide an example of a study that was done in which students rated the college union as being the largest predictor of how students perceive sense of community on campus. Finally, this review will synthesize a conceptual framework, and provide literature for future application in the Discussion portion of this study.

Introduction to the College Union

Within the many brick and mortar buildings standing on college campuses today, very few institutions of higher education are without a college union. While academic buildings and libraries across the collegiate landscape may have a more straightforward purpose within the institution, college unions often take on a different role and purpose depending on the college or university. With hopes of trying to connect ideas from

hundreds of college unions across the world, ACUI (Association for College Unions International) has identified a few commonalities among the vision and role of college unions. First, college unions help to advance a sense of community, as well as helping to unify the institution by welcoming the diversity of not only students but faculty, staff, alumni, and guests (ACUI, 2018). Second, the college union provides students with many cultural, educational, social, recreational programs, and facilities to promote the idea of life long learning for students, meeting the educational goals of institutions across the globe (ACUI, 2018). Lastly, the college union provides spaces for student interaction, community building, and provides students with employment and involvement opportunities with hopes of promoting leadership education and development (ACUI, 2018).

These commonalities among the role of the college union are exemplified in how institutions determine the purpose of their college union. For example, North Carolina A&T State University (2018) believes that an important role within their college union is to compliment the academic experience of students by providing an extensive array of programs, employment and leadership development. Oklahoma State University (2018) promotes the idea of a kind, warm, and friendly environment that encourages caring and service to others. Lastly, Rowan University (2018) is committed to providing a safe, welcoming, and inclusive environment, while also providing quality programs, services and facilities to promote student engagement, personal development, and building campus community. While many colleges and universities differ in their perspectives within campus community building, general themes of a welcoming environment, the promotion of student engagement, and student development are at the forefront of what

many college unions strive for. These ideas gathered from institutions across the globe are what ACUI believes the focus of the college union should be. Although the purpose of the college union may differ from one institution to the next, the idea of the college union building a sense of community appears to have existed since the late 1800's (Barrett, 2014).

Within many college unions and campus centers are a variety of services including meeting room spaces (Texas A&M, 2018), bookstores (Temple University, 2018), dining facilities (Bennington College, 2018), print centers (SUNY New Paltz, 2018), and more. The range of services offered by many college unions and campus centers provide students with an opportunity to participate in a variety of activities. Whether it is gathering with friends to share a meal, purchase a text book, or host a weekly meeting with a campus club or organization, the college union is an example of a space on campus that welcomes more than just students, but community members as well. For more than 100 years professionals in higher education have viewed the college union as a community center (Smyth, 2016). It is this community centered idea that provides researchers with an opportunity to discover not only if the physical space of a college union is significant in the overall student experience, but also provides researchers with an opportunity to learn more about how the physical space of a college union may impact specific areas within the college experience. For example, areas to be examined include, student perceptions of racial climate on campus, academic achievement, retention rates, and more. One area that is particularly interesting to take a look at is how the physical space of the college union promotes a sense of community. Research examining this topic may open up doors for more studies looking at ergonomics

and architecture within college unions across the globe, and the overall impact this area may have in fostering positive student experiences.

Sense of Community

The promotion of community building within college unions is evident, but the lack of empirical evidence within the literature creates a gap in the knowledge base. This gap lacks evidence to support a relationship between the college union and a sense of community on campus (Barrett, 2014), and is largely why there are remaining questions as to if a relationship exists, and how college unions might be able to improve based on the results of empirical research. In order to better understand the role college unions may have in community building, defining what building community means is a necessary step.

Gusfield (1978) identified two major uses of the term community, with the first being from a geographical perspective (neighborhood, town, city etc.), and the second being focused on the quality of the social interaction between humans and relationships they have with others. Much of the research on this topic focuses on the sense of community based on the second of Gusfield's findings. One interpretation of this perspective includes community being interpreted as a feeling that members have towards one another, and to the groups which they belong (McMillan & Chavis, 1986). An additional interpretation encompasses, a focus on the students, faculty, and staff, and how they build cohesion rather than a focus on the relationships of partners that exist outside of the institution (Smyth, 2016). A final interpretation on community within higher education comes from Barrett (2014), in which community was defined as the

student having a sense of belonging, having a strong social support network, and social activities being offered at the institution. This perspective and focus on how colleges and universities can better promote a sense of community within their campus is a strong component that helps to understand how college unions and campus centers play a role within the college experience.

Research examining how a sense of community impacts different areas of an institution have provided professionals in higher education with empirical data that reaches beyond just the student experience. For instance, O'Keeffe (2013) found that not only is the creation of a caring, supportive, and welcoming environment crucial to a student having a sense of belonging, but that a student feeling part of a community had a positive impact on retention rates. Furthermore, much research has been done that looks at the impact that a sense of belonging may have on the retention rates and overall experience of students who come from lower social class backgrounds. Results from the research of Ostrove and Long (2007) suggest that social class may be an important predictor when it comes to a sense of belongingness and sense of community within the institution. With retention rates being an important part of the overall success of colleges and universities, research examining the impact of a student feeling a sense of community and belongingness may be an area worth focusing on. Further research shows that students that are more likely to report positive university belonging and sense of community, are also more likely to have positive changes in academic competence and self-worth (Pittman, & Richmond, 2008). Lastly, sense of community has also been studied from the perspective of online learning. Rovai (2002) found that students taking online classes were less likely to feel isolated, and more likely to have greater satisfaction

within their academic programs as long as they felt a sense of community. Research reveals that a sense of community impacts many different areas of an institution from retention rates to the academic competence of students. With this, however, research regarding the role that college unions play in developing a sense of community on campus is an area of research largely untouched.

Physical Spaces in Higher Education

The idea of institutional design, and the manipulation of physical space on college campuses is not a new idea. Strange and Banning (2015) note that the connection between the physical space in which students interact, and how to manipulate these spaces to achieve what is best for the students has long been a debated topic the involves both student and institutional needs. Furthermore, this connection of physical space to higher education has a deep history within Western culture, and that educators within higher education have longed seek to improve design in order to advance both human achievement, and community (Strange & Banning, 2015, p. ix). Lastly, Strange and Banning (2015) recognize that attending college results in exploration of the self, and that the college campus becomes a landscape in which students examine new aspects of their identity, values, interests, and goals. With this understanding of the impact of physical spaces within higher education, it is important to note that research regarding how different spaces on campuses impact a student's sense of community is vital in understanding how professionals in higher education can make data informed decisions in order to improve the college experience.

Research within the idea of physical spaces and how these spaces influence social interaction and general human behavior is an aspect of higher education that provides valuable information about how the manipulation of a space on campus can influence the behavior and experience of students. For example, research shows that facilities on college campuses have a large impact on whether the student decides to attend a college or university (Price et al., 2018). More specifically, facilities including the campus library, teaching facilities, and spaces for quiet studying rate highly in the decision making process for many college students (Price et al., 2018). Additional research shows that community college students are able to identify specific physical characteristics of their classroom, and how these characteristics either positively or negatively impact learning (Veltri et al., 2006). Furthermore, classroom attributes that positively impacted perceptions of learning among community college students include the furniture being arranged in a way that promoted group work, general classmate interaction, and being able to see visuals regardless of where they were seated in the room (Veltri et al., 2006). Physical attributes of classrooms that negatively impacted the perception of learning within this same group of community college students include being located near a busy hallway where noises became a distraction, distance from instructor visuals, low levels of lighting, and temperatures that were exceedingly warm (Veltri et al., 2006).

From this area of research, a few common themes around the use of physical space when trying to better understand interactions and human behavior within higher education are evident. First, characteristics within centers of learning such as comfort, access, and enjoyment may have a direct impact on motivation, concentration, and overall performance of individuals (Miller, Erickson, & Love-Yust). Second, some

researchers believe that classrooms that do not provide the necessary environments conducive for learning are simply not designed with the interaction of the course instructor and the students in mind. Instead, it is believed that a lack of architectural innovation and fiscal deficits are the primary drivers of the design process (Veltri et al., 2006). The understanding of physical space and design of academic areas on campus and the impact they have on student selection is evident. However, research regarding other areas of institutions that have an impact on the student experience and sense of community is lacking.

One area in which research regarding the impact of physical space has on the student experience is the college union. Interestingly, there is research that involves student perceptions and satisfaction within their college union facility. This research is a preliminary look into how students view the physical space around them. With a sudden outpouring of renovations and new facilities within the college union landscape (Turk-Fiecoat, 2011), the development of these new spaces provides an opportunity for professionals to have discussions around how to manipulate square footage to meet the goals a department or university may have for the student population. For instance, one study utilized the ACUI/EBI College Union/Student Center Assessment to measure the levels of satisfaction or dissatisfaction within the college union facility (Turk-Fiencoat, 2011). Results of this study show that students of color and students who are involved on campus are more likely to report higher satisfaction levels with the facility, and students who are not as involved report lower levels of satisfaction (Turk-Fiencoat, 2011). In another study completed at Rowan University in which 500 students were surveyed, a majority of those surveyed reported levels of high satisfaction with customer service

within the facility and the quantity of meeting spaces and student activities (Howarth, 2012). These same participants also reported low levels of satisfaction within food service areas within the facility (Howarth, 2012). Results from research studies such as these provide more details into how students are feeling about their college union facility, but research that details how the facility, and physical space of a college union impacts a student's development throughout their time at the intuition is an area of research yet uncovered.

Physical Space and the College Union

Research within the manipulation of physical spaces on college campuses show the importance of design when it comes to libraries, classrooms, and study areas. However, there is a lack of research on the idea of how the physical space of a college union impacts student interactions, behavior, and a sense of community (Barrett, 2014). In fact, within the past 30 years, only 23 dissertations have been written regarding the college union (DeSawal & Yakaboski, 2013), none of which discuss this relationship. Being able to identify specific design flaws and strengths may prove to be useful for student affairs professionals who oversee a college union by encouraging more conversations about how both small and large facility related improvements impact the student experience. The first study designed to examine a potential relationship between the physical space of a college union and sense of community was completed by Leah Barrett in 2014.

In Barrett's (2014) research, Lewin's psychologically-based person-environment theory and campus ecology act as the framework with which the rest of the study was

built upon. Lewin's person-environment theory is the idea that personal characteristics of an individual and the environment around them jointly determine the individual's well-being (Caplan, 2011). This theory has largely been used in the context of employee as the individual and work place as the environment, however the theory may be useful in other settings as well. As Barrett (2014) points out in her research, campus ecology provides a basis for examining a potential relationship between the physical space of the college union and students' sense of community on campus. Key to Barrett's (2014) research is the idea that students who report a positive sense of community on their campus positively relates to other areas of the institution such as retention rates, satisfaction, and persistence to graduation. In addition, Barrett (2014) utilizes Vincent Tinto's theories of both social integration and sense of belonging in order to connect the idea that positive experiences students have within their campus community impact the student's outlook on campus community as a whole.

Data from Barrett's (2014) research was obtained utilizing data from the MAUS (Middle Atlantic States of the United States) 2012 Likert-typed survey, in which 15,144 valid surveys were analyzed using SPSS. Results from this study show that, not only is there is a statistically significant relationship between the physical space of a college campus and sense of community, but that of spaces listed on campus, the college union was found to be the largest predictor of a sense of community as compared to all of the other buildings in the study. These other buildings include classroom facilities, library facilities, study areas, fine and performing arts centers, athletic and recreational facilities, residence halls, parking services, and more (Barrett, 2014). With the results of Barrett's (2014) study identifying satisfaction within the physical space of a college union as a

predictor of satisfaction with students' sense of community, it is clear that the implications of her study are a significant step in uncovering details as to how the manipulation of physical space can impact the campus community.

Barrett's research is not the only study that examines the physical space of a college union and the impact this may have on a sense of community. Smyth (2016) sought to go a step further by examining how students within institutions that have highly related facilities make meaning of community and what specific elements of the facility best promoted a sense of community on campus. More specifically, Smyth (2016) wanted to answer two questions. First, how do students enrolled in institutions with highly rated facilities made meaning of community? Second, what specific elements of these highly rated college unions contributed most to the development of community on campus? Smyth's (2016) research differs from Barrett's (2014) research in the way that data was collected, due to the fact that themes were analyzed by use of interviews. Results from Smyth's (2016) research indicate two significant implications. First, Smyth (2016) found that not only does community exist within the college union facility, but that community is generated and enhanced by the user of the facility and those that operate the facility. Second, Smyth (2016) found that both the physical space where community exists are significant to campus community in general.

These results indicate that not only does the physical space within a college union matter in terms of sense of community, but that more research needs to be completed to better understand this relationship. Furthermore, no research has been completed that examines specific populations of students and how the physical space of the college union impacts their particular feelings about campus community. Filling this gap in the

knowledge base will assist higher education professionals within college unions by opening up more conversations around how the manipulation of physical space within the college union facility may positively impact the way students view their campus community, and ultimately impact retention rates and persistence towards graduation (Barrett, 2014).

Summary of the Literature

For more than 100 years professionals in higher education have viewed the college union as a place for the campus community (Smyth, 2016). By helping to advance a sense of community, foster diversity among the student body, provide programming initiatives, and service areas for student interaction (ACUI, 2018), the student union embodies what it means to be a community. Within this community students are able to have create sense of belonging, develop a strong social support network, and attend social programming opportunities (Barrett, 2014). However, empirical research that supports these claims is lacking. Only 23 dissertations have been completed that involve the college union, none of which examine how physical space impacts a sense of community on campus (DeSawal & Yakaboski, 2013).

Although research in the physical space of buildings on college campuses such as classrooms, libraries, and study spaces are apparent, the gap within the knowledge base revolves around examining how the physical space of a college union impacts the student experience. More specifically, how the physical space of the college union impacts a sense of community within the college campus. As Barrett (2014) includes in her research on this area, professionals within college unions have been writing about the

positive impact their facilities have had for more than 100 years. However, empirical evidence to support these notions have not been examined in detail. Furthermore, while a few studies provide some level of empirical evidence supporting the importance of college union facilities on building a sense of community, none examine this relationship from the perspective of undergraduate students at a New Jersey public institution. It is important to examine how the physical space of a college union impacts a wide number of students from different areas of the globe. By examining this relationship, this study aims to uncover data that provides a deeper understanding into how the physical space of a college union impacts a sense of community within undergraduate students.

Chapter III

Methodology

With little research exploring how college unions impact a sense of community on campus, it is becoming increasingly important to collect data that assists in understanding how our college unions are impacting the student body. This study seeks to add to the literature by examining the relationship between the physical space of a college union, and students' sense of community on campus. In order to achieve this, two research questions were asked. First, is there a relationship between the physical space of a college union and students' sense of community on campus? Second, is there a statistically significant difference between how the physical space of a college union impacts student's sense of community, and how other physical spaces on campus impact student's sense of community?

Context of the Study

This study was conducted at Rowan University in Glassboro, New Jersey. Rowan University is one of four public research universities in the state of New Jersey and is accredited by Middle States Commission on Higher Education (NJ College & University Directory by Sector, 2018). Rowan University began as Glassboro Normal School in 1923, evolving from an institution focused on educating a lack of schoolteachers in South Jersey, to an institution that offers degree programs in STEM (Science, Technology, Engineering & Math), Business, Performing Arts, Education, as well as Humanities and the Social Sciences (Rowan University, 2018). Rowan University serves 15,401 undergraduate students, and 2,045 graduate students, and offers students 74

undergraduate degree programs, 51 master's, four doctoral, and two professional degree programs (Rowan University, 2018). The average class size for an undergraduate student at Rowan University is 20 students, with a student/faculty ratio reported to be 17:1 (Rowan University, 2018).

Rowan is largely known for the 1992 Henry Rowan donation of $100 million, which was the largest donation to a public institution at the time. This gift to the university transitioned the institution from Glassboro State College to Rowan University and was pivotal to the development of the Rowan College of Engineering. The Henry M. Rowan College of Engineering is ranked #19 in the nation among the top undergraduate engineering schools (Rowan University, 2018). Additional awards given to the university include, U.S. News and World Report ranking Rowan #90 among public universities and #171 overall out of 311 national universities (Rowan University, 2018).

Rowan also has many opportunities for students to get involved outside of the classroom. For instance, more than 140 clubs and student organizations, as well as 31 Greek Life organizations provide students with opportunities to gain leadership experience and enhance their overall experience. Rowan is also host to eight men's and 10 women's NCAA Division III recognized teams, while also providing over 80 intramural and sport club programs (Rowan University, 2018).

Population and Sampling

The target population for this study was all current undergraduate students enrolled at Rowan University. All participants in this study were current undergraduate students and were over the age of 18. In order to ensure the generalizability of the results

across all undergraduate students the survey was distributed using a stratified random sample of 150 Freshman, Sophomores, Juniors, and Seniors. A 95% confidence number was obtained using Baseline, a Campus Labs software, and it was determined that this studied needed a total of 370 responses. The total number of students emailed with a link to the survey was 600 (McMillan, 2016, p. 119).

Data Collection Instruments

With little research previously completed in this particular area of the literature, finding a survey instrument that had already been tested for validity, and that answered my particular research questions proved to be difficult. Therefore, for use of this study, a survey instrument was created (McMillan, 2016, p. 155). The survey instrument used in this study was developed with the assistance of Qualtrics software. Qualtrics is a software designed and developed primarily for the use of online survey creation, distribution, analyzation (Qualtrics, 2019). Currently, Qualtrics serves more than 8,500 brands and is used by 99 of the top 100 business schools, in which data from fully customized surveys are stored and analyzed all within the software (Qualtrics, 2019). Qualtrics was selected as it is the official survey tool used at Rowan University. The first draft of the instrument was developed in about two weeks.

A survey instrument was selected as the data collection tool in this study as research in this particular area has yet to be done at Rowan University. Results from this study may provide a basis for future research in which different study designs are tested. The risks associated with participating in this study are minimal as participants are asked non-invasive demographic questions. The survey instrument takes approximately five

minutes to complete. Prior to taking the survey, participants were provided with the consent procedures to ensure that participants knew what to expect. Lastly, there was no cost for participants in this study (McMillan, 2016, p. 181). Those who did choose to participate and agreed to provide their email addresses were randomly selected to win a Student Center & Campus Activities promotional item at a value no more than $2.00.

The survey was pilot tested with three undergraduate student employees of the Chamberlain Student Center & Campus Activities (SCCA). The SCCA is a department at Rowan University that is responsible for the general supervision of the Student Center. To ensure face validity of the survey instrument undergraduate student employees of the SCCA were selected, as they are guarantee users of the facility being studied. The final survey instrument used in this study can be found in Appendix A (McMillan, 2016, p. 155).

Data Collection

Following approval of the Institutional Review Board at Rowan University (Appendix A), the survey instrument was sent out to the participants via a link through their Rowan University student email account. All data was collected during January and February of the Spring 2019 semester. All participants in the study voluntarily chose to take the survey by clicking on the link. All results collected were obtained through anonymous submission.

Data Analysis

The independent variables in this study included the participants' perceptions of both the physical spaces of the Chamberlain Student Center, and other spaces on Rowan's campus. The dependent variable in this study is participant's sense of community on campus (McMillan, 2016, p. 56). Data from the survey results were analyzed using Qualtrics, and the Statistical Package for Social Science (SPSS). For quantitative data, frequency, percentages, and correlations we all collected. In order to ensure validity, the survey instrument used to collect responses from the participants was pilot tested using 3 undergraduate student employees of the Chamberlain Student Center and Campus Activities (McMillan, 2016, p. 155). These students were selected due to having worked in areas of The Chamberlain Student Center that are being asked about in the survey, and due to the familiarity of the building and services offered. More specifically, one student was chosen who works at the Information Desk, one student was chosen who works in The Game Room, and one student was chosen as a Building Manager. Gaining the perspective of these students assisted in providing feedback on the delivery, and structure of the final instrument that was sent out to the sample.

Results, and data collected from participants in this study are kept within the Qualtrics database and not be saved on any of my personal devices. Data was be collected electronically through an online survey. The only information to be collected at the end of the survey is the participant's email. Participants were asked at the end of the survey if they wished to be entered to win an SCCA promotional item. If a participant selected, "yes", they were asked to provide their email. The email was collected as a way to communicate with the participant if they have been selected as a winner of a promotional

item and is not be a way for me to be able to identify specific responses given by any participant. All data collected from this study will be destroyed once the study is complete.

Chapter IV

Findings

Profile of the Sample

The participants of this study consisted of current undergraduate students enrolled in at least one course at Rowan University. The participants were selected using stratified random sampling of 150 Freshman, Sophomores, Juniors, and Seniors (McMillan, 2016, p. 119). The survey was distributed to participants through their Rowan email address on Tuesday, February 19th, 2019 with the data collection ending one week later on Tuesday, February 26th, 2019. The survey consisted of both quantitative and qualitative responses with some questions being multiple choice, in which participants were also provided an opportunity to select other in case there were physical spaces on campus that were omitted, or comments wanted to be made. The total number of surveys distributed were 600, with a total of 73 responses being collected, yielding a return rate of 12%.Table 4.1 shows the sample demographics of all surveys collected. The class year of participants in this study were fairly evenly distributed with Freshman, and Sophomores receiving 20 (27.40%) selections each, Juniors receiving 17 (23.29%), and Seniors with 16 (21.92%) selections. Data from the survey shows that 55 (74.34%) responses were collected from participants reporting that they did not transfer to Rowan University, with the remaining 18 (24.66%) participants reporting that they did transfer. The College of Science and Mathematics was the College most represented in the data set with 19 (26.03%) participants. Following are The College of Humanities & Social Sciences (including Exploratory Studies), and The Henry M. Rowan College of Engineering with 14

(19.18%) participants, The College of Education with nine (12.33%) participants, The College of Communication and Creative Arts with six (8.22%) participants, The School of Health Professions with five (6.85%) participants, and the William G. Rohrer College of Business and The College of Performing Arts each with two (2.74%) participants. Of the 73 total responses, 37 (50.68%) show that half of the participants are taking 16 or more credits, with another 29 (39.73%) taking between 12-15 credits. Additionally, seven (9.59%) responses were collected from participants that reported being enrolled in 11 or fewer credits. Finally, 41 (56.16%) participants reported that they live on-campus, while 32 (43.84%) reported living off-campus.

Table 4.1

Sample Demographics (N=73)

Variable		*f*	%
Class Standing			
	Freshman	20	27.40
	Sophomore	20	27.40
	Junior	17	23.29
	Senior	16	21.92
Transfer Status			
	Yes	18	24.66
	No	55	75.34
Major College			
	Science & Mathematics	19	26.03
	Henry M. Rowan College of Engineering	14	19.18
	Humanities & Social Science	14	19.18
	College of Education	9	12.33
	Communication & Creative Arts	6	8.22
	School of Health Professions	5	6.85
	College of Performing Arts	2	2.74
	School of Earth and Environment	2	2.74
	William G. Rohrer College of Business	2	2.74
Credit Status			

Table 4.1 (continued)

	11 or Fewer	7	9.59
	Between 12-15	29	39.73
	16 or Greater	37	50.68
Housing Status			
	On-Campus	41	56.16
	Off-Campus	32	43.84

In order to better understand a potential relationship between participants' responses to how important they believe having a sense of community on campus to be, the Statistical Package for the Social Sciences (SPSS) was used to run a Pearson's Correlation. Table 4.2 shows the data collected. The only variable in the data set that shows a small significant relationship to a participant likely believing that having a sense of community on campus is important is whether or not they live on or off-campus (r=.225), although this variable, with a significance level of .055, was just over a .05 significance level. This indicates a weak, linear relationship between the two variables. For major college (r=.105), class standing (r=.075), transfer status (r=.055), and credit status (r=.019) no statistically significant correlations were found.

Table 4.2

Correlation Between Demographic Data and Importance of Community on Campus

Variable		Importance of community on-campus
Housing Status	Pearson's r	.225

Table 4.2 (continued)

	Sig. (2-tailed)	.055
	N	73
Major College	Pearson's r	.105
	Sig. (2-tailed)	.378
	N	73
Class Standing	Pearson's r	.075
	Sig. (2-tailed)	.530
	N	73
Transfer Status	Pearson's r	.055
	Sig. (2-tailed)	.643
	N	73
Credit Status	Pearson's r	.019
	Sig. (2-tailed)	.874
	N	73

*p≤ 0.05 level (2-tailed).

**p≤0.01 level (2-tailed).

Analysis of the Data

The Chamberlain Student Center. Upon answering demographic questions, participants were asked questions regarding how often they visit the Chamberlain Student Center, what services they most utilize within the facility, and how they would rate their experiences in the physical spaces within the facility in which they chose as being ones they most utilize. The results from this section can be found here.

Tables 4.3, 4.4, and 4.5 shows results from the customer service-related questions from the survey instrument. When asked how often participants visited the Chamberlain

Student Center, 22 (30.14%) reported that they visited the facility daily, with the second and third most common responses being multiple times a day, and weekly at 24.66%, and 17.81% of responses collected respectively. When asked what services participants most often used in The Chamberlain Student Center, Marketplace, Prof's Place, and The Pit were the three most common responses with 44 (24.44%), 39 (21.67%), and 29 (16.11%) responses respectively. The three least common responses included, The Mail Room, the printing kiosk, RoGo, and Peet's Coffee each of which receiving one response each. Participants were offered to enter a physical space that was not listed on the survey instrument. Lastly, when asked to rate their experience in spaces selected as being most visited within The Chamberlain Student Center, 39 (54.93%) respondents selected satisfied, with very satisfied receiving 23 (32.39%) responses, neither satisfied or dissatisfied receiving eight (11.27%) responses, dissatisfied receiving one (1.41%) response, and very dissatisfied receiving no responses.

Table 4.3

How Often Participants Visited the Chamberlain Student Center (N=73)

How Often the Chamberlain Student Center is Visited	*f*	%
Daily	22	30.14
Multiple Times A Day	18	24.66
Weekly	13	17.81
At Least Once Per Semester	10	13.70
At Least Once Per Month	5	6.85

Table 4.3 (continued)

I Have Not Visited	5	6.85

Table 4.4

Services Most Often Used (N=180)

Services Most Often Utilized	*f*	%
Marketplace	44	24.44
Prof's Place	39	21.67
The Pit	29	16.11
Meeting Spaces	20	11.11
The Game Room	18	10.00
Information Desk	11	6.11
The Back Patio	11	6.11
The Laundry Room	2	1.11
Mail Room	1	0.55
Peet's Coffee	1	0.55
Printer	1	0.55
RoGo	1	0.55
Upstairs Tables	1	0.55

Table 4.5

Participants' Rating of their Experiences (N=71)

Participant's rating on their Experience	*f*	%
Very Satisfied	23	32.39
Satisfied	39	54.93
Neither Satisfied or Dissatisfied	8	11.27
Dissatisfied	1	1.41
Very Dissatisfied	0	0.00

Participants and community. Table 4.6 shows data on how participants answered questions regarding their thoughts on whether building campus community is important, whether Rowan University as a whole promotes building campus community, and whether The Chamberlain Student Center plays a major role in building campus community.

Table 4.6

Data on Community Building on Campus

Variable	N	*f*	%
Importance of community on campus	70		
Extremely Important		29	41.43
Very Important		29	41.43
Moderately Important		8	11.43
Slightly Important		3	4.29
Not at all important		1	1.43
Rowan promotes building campus community	68		
Strongly Agree		16	23.53
Agree		41	60.29
Neither Agree or Disagree		9	13.24
Disagree		2	2.94
Strongly Disagree		0	0.00
CSC plays a major role in building campus community	69		
Strongly Agree		13	
Agree		29	56.52
Neither Agree or Disagree		13	18.84
Disagree		3	4.35
Strongly Disagree		1	1.45

Research question 1. Is there a relationship between the physical space of a college union and student's sense of community on campus?

Table 4.7 provides data on a potential relationship between the results collected in the demographics section of the survey, and whether or not participants believe that The Chamberlain Student Center (CSC) plays a major role in building campus community. Using SPSS, a Pearson's Correlation was completed. The only variable in the data set that shows a small significance to whether or not a participant is likely to believe that The Chamberlain Student Center plays a major role in building campus community is credit status (r=.284). This indicates a weak linear relationship between the two variables. For transfer status (r=.205), housing status (r=.191), class standing (r=.147), and major college (r=.133), no statistically significant results were found.

Table 4.7

Correlation Between Demographic Data and CSC and Building Community

Variable		CSC in building community
Credit Status	Pearson's r	.284*
	Sig. (2-tailed)	.015
	N	73
Transfer Status	Pearson's r	.205
	Sig. (2-tailed)	.081
	N	73
Housing Status	Pearson's r	.191
	Sig. (2-tailed)	.105

Table 4.7 (continued)

	N	73
Class Standing	Pearson's r	.147
	Sig. (2-tailed)	.213
	N	73
Major College	Pearson's r	.133
	Sig. (2-tailed)	.263
	N	73

*p≤ 0.05 level (2-tailed).

**p≤0.01 level (2-tailed).

Table 4.8 shows a Pearson's Correlation between how important participants believed having a sense of community on campus to be, and whether or not The Chamberlain Student Center plays a major role in building campus community. There is a small to moderate, positive correlation (r=.359), indicating a significant linear relationship between the two variables.

Table 4.8

Correlation Between the Importance of Building Campus Community and CSC Building Community

Variable	CSC in building community

Table 4.8 (continued)

How important do you believe having a sense of community on campus to be?	Pearson's r	.359**
	Sig. (2-tailed)	.002
	N	73

*p≤ 0.05 level (2-tailed).

**p≤0.01 level (2-tailed).

Table 4.9 provides data showing a potential relationship between participants' belief that Rowan University promotes building campus community, and whether or not The Chamberlain Student Center plays a major role in building campus community. There is a strong, positive correlation (r=.606) between the two variables, indicating a significant linear relationship.

Table 4.9

Correlation Between Rowan University Building Campus Community and CSC Building Community

Variable		CSC in building community
In general, Rowan University promotes building campus	Pearson's r	.606***
	Sig. (2-tailed)	.000
	N	73

*p≤ 0.05 level (2-tailed).

**p≤0.01 level (2-tailed).

***p≤0.001 level (2-tailed).

Table 4.10 analyzes data showing a potential relationship between the varying physical spaces in The Chamberlain Student Center, and whether or not The Chamberlain Student Center plays a major role in building campus community. Among all variables including, Marketplace (r=.038), The Laundry Room (r=-.008), The Information Desk (r=-.018), The Pit (r=-.037), Prof's Place (r=-.048), The Game Room (r=-.062), The Back Patio (r=-.147), and Meeting Spaces (r=-.166), no statistically significant relationships were found.

Table 4.10

Correlation Between CSC Physical Spaces and CSC and Building Community

Variable		CSC in building community
Marketplace	Pearson's r	.038
	Sig. (2-tailed)	.748
	N	73
Laundry Room	Pearson's r	-.008
	Sig. (2-tailed)	.949
	N	73
Info Desk	Pearson's r	-.018
	Sig. (2-tailed)	.878
	N	73
The Pit	Pearson's r	-.037
	Sig. (2-tailed)	.755
	N	73
Prof's Place	Pearson's r	-.048
	Sig. (2-tailed)	.689
	N	73

Table 4.10 (continued)

Game Room	Pearson's r	-.062
	Sig. (2-tailed)	.605
	N	73
Back Patio	Pearson's r	-.147
	Sig. (2-tailed)	.214
	N	73
Meeting Spaces	Pearson's r	-.166
	Sig. (2-tailed)	.160
	N	73

*p≤ 0.05 level (2-tailed).

**p≤0.01 level (2-tailed).

Table 4.11 analyzes a potential relationship between how participants would rate their overall experience in the physical spaces of The Chamberlain Student Center, and whether or not The Chamberlain Student Center plays a major role in building campus community. A strong, positive relationship was found, indicating a significant linear relationship between the two variables.

Table 4.11

Correlation Between Overall Experience in CSC and CSC Building Community

Variable	CSC in building community

Table 4.11 (continued)

How would you rate your overall experience in the spaces selected?	Pearson's r	.601***
	Sig. (2-tailed)	.000
	N	73

*p≤ 0.05 level (2-tailed).

**p≤0.01 level (2-tailed).

***p≤0.001 level (2-tailed).

Table 4.12 examines participants' responses to whether or not discussions regarding facility renovations of The Chamberlain Student Center would be helpful in building campus community. Just over 82% of participants who answered this question believe that being included in the discussions regarding facility renovations of The Chamberlain Student Center would be helpful in building campus community.

Table 4.12

Facility Renovations and Building Campus Community (N=68)

Inclusion of discussions regarding facility renovations	*f*	%
Yes	56	82.35
No	12	17.65

Research question 2. Is there a statistically significant difference between how the physical space of a college union impacts students' sense of community, and how other physical spaces on campus impact students' sense of community?

Table 4.13 shows data on how participants responded to how The Chamberlain Student Center builds community in comparison to other buildings on campus. These buildings include, participant's academic building, the Campbell Library, and the Recreation/Fitness Center. Over half of the total responses (*f*=43) reported that The Chamberlain Student Center does an either somewhat better or is about the same at building campus community than their academic building, while four responses were collected reporting that The Chamberlain Student Center is somewhat worse, or much worse at building campus community. In terms of the Campbell Library, participants' most common responses were that The Chamberlain Student Center is either about the same, or much better at building campus community, while the least common responses were either The Chamberlain Student Center is much worse at building campus community, or that the Campbell library was not a building that was frequented. Lastly, participants most commonly reported that the Recreation/Fitness center and The Chamberlain Student Center are about the same in building campus community. The least common responses were that The Chamberlain Student Center is either somewhat worse, or much worse at building campus community.

Table 4.13

CSC Building Community in Comparison to other Campus Buildings

Variable	N	*f*	%
Academic Building	68		
Somewhat better		27	39.71
About the same		17	25.00
Much better		16	23.53
I don't utilize an academic building		4	5.88
Somewhat worse		3	4.41
Much worse		1	1.47
Campbell Library	68		
About the same		25	36.76
Much better		17	25.00
Somewhat better		15	22.06
Somewhat worse		5	7.35
I don't utilize the library		4	5.88
Much worse		2	2.94
Recreation/Fitness Center	68		
About the same		31	45.59
Somewhat better		11	16.18
I don't utilize the Campus Rec.		10	14.71
Much better		7	10.29
Somewhat worse		7	10.29
Much worse		2	2.94

*p≤ 0.05 level (2-tailed).

**p≤ 0.01 level (2-tailed).

Table 4.14 provides data showing a potential relationship between participants belief that The Chamberlain Student Center plays a major role in building campus community, and how The Chamberlain Student Center compares to other buildings on campus in terms of building campus community. Of all of the variables analyzed, the Recreation/Fitness Center showed the strongest correlation (r=.376), with Campbell

Library (r=.366), and Academic Building (r=.299) to follow. This shows a weak to moderate correlation, indicating a significant linear relationship between all variables analyzed.

Table 4.14

Correlation Between CSC in Building Campus Community and other Buildings on Campus

Variable		CSC in building community
Recreation/Fitness	Pearson's r	.376***
	Sig. (2-tailed)	.001
	N	70
Campbell Library	Pearson's r	.366**
	Sig. (2-tailed)	.002
	N	70
Academic Buildings	Pearson's r	.299*
	Sig. (2-tailed)	.012
	N	73

*p≤ 0.05 level (2-tailed).

**p≤0.01 level (2-tailed).

***p≤0.001 level (2-tailed).

Chapter V

Summary, Discussion, Conclusions, and Recommendations

Summary of the Study

This study sought to better understand how the physical space of a college union impacts student's sense of community on campus. Data was collected from a survey instrument sent out to 600 Rowan University students to examine a potential relationship between the physical space of The Chamberlain Student Center, and participant's sense of community on campus. In addition, data was collected to see if there was a statistically significant difference between the physical space of The Chamberlain Student Center, and the physical space of other buildings on Rowan University's Campus. This was done in order to better understand how the physical space of a college union might be different from the physical space of other buildings on campus in terms of building campus community. Of the 600 students emailed, 73 surveys were completed and used as data for this study.

The survey consisted of three sections. Participants were asked to complete a demographics section, a section on the quantity and quality of experiences within The Chamberlain Student Center, and a section consisting of questions directed at better understanding the perspectives on campus community. More specifically, participants were asked if Rowan as an institution promotes building campus community, and whether or not The Chamberlain Student Center plays a major role in building campus community and comparing The Chamberlain Student Center to other buildings on campus. Questions consisted of both qualitative and quantitative responses. Data was

analyzed using both Qualtrics, and the Statistical Package for the Social Sciences (SPSS). Qualtrics was used to determine frequencies and percentages of survey questions, while SPSS was used for Pearson Correlations.

Discussion of the Findings

Research question 1. Is there a relationship between the physical space of a college union and student's sense of community on campus?

In the survey, participants were asked how important they felt having a sense of community on campus to be. What was found was that 82% of respondents reported that having a sense of community on campus was either extremely important, or very important. Of the correlation data collected, the only variable that was marginally statistically significant to whether or not a participant was likely to believe that having a sense of community on campus is important was housing status. Additionally, over 72% of respondents in this study reported using The Chamberlain Student Center either, daily, multiple times a day, or weekly. Furthermore, participants were asked to rate their overall experience when using different services offered by The Chamberlain Student Center. Just over 87% of respondents rated their experience in the facility to be either satisfied, or very satisfied. What this shows is that the sample that was randomly selected to participate in this study are students that are frequent users of the building, believe that having a sense of community on campus is important, and are satisfied with their experience when using services offered by The Chamberlain Student Center & Campus Activities department.

In terms of attempting to find a correlation between the physical space of The Chamberlain Student Center, and student's sense of community on campus, a few results were significant. First, of all the variables collected in the demographics section of the survey, credit status appears to be the most important when trying to predict a population of students who believe The Chamberlain Student Center plays a major role in building campus community. Second, there is a statistically significant correlation between how important a participant believes having a sense of community on campus to be, and whether or not The Chamberlain Student Center plays a major role in building campus community. Third, a relationship was found between participants believing that Rowan University promotes building campus community, and that The Chamberlain Student Center plays a major role in building campus community. Fourth, a strong relationship was found between how participants rated their overall experience in the building, and whether or not The Chamberlain Student Center plays a major role in building campus community. Fifth, 82% of respondents reported that being included on building renovations/upgrades would have a positive impact on building community on campus. Lastly, no statistically significant data was collected that shows a relationship between a specific space or service offered in the building, and whether or not The Chamberlain Student Center plays a major role in building campus community.

Research question 2. Is there a statistically significant relationship between how the physical space of a college union impacts student's sense of community, and how other physical spaces on campus impact student's sense of community?

Of the data collected and analyzed there does appear to be a statistically significant relationship between how the physical space of a college union impacts a

student's sense of community on campus, and the impact that other buildings on campus have on community building. For example, the strongest relationship found was that of The Chamberlain Student Center, and the Recreation/Fitness Center. In this analysis, it was found that nearly half of all respondents believe that both buildings are about the same when it comes to building campus community. In opposition, the weakest relationship found was that between The Chamberlain Student Center, and the participant's academic building. In this analysis, 65% of respondents believe that The Chamberlain Student Center does either a much better or somewhat better job at building community. According to the participants in this study, the Chamberlain Student Center may do a slightly better job at building campus community than both the Recreation/Fitness Center and the library but does a significantly better job at building campus community in comparison to a participant's academic building.

Conclusions

The results from this study propose two conclusions. First, there are multiple ways in which this data can provide insight into whether or not a specific student population will believe, or not believe that The Chamberlain Student Center plays a major role in building campus community. For example, students who are enrolled in more credits, students who report having a positive experience in the building, and students who believe Rowan University does promote building campus community are all more likely to believe that The Chamberlain Student Center plays an integral role in building community on campus. Additionally, it is important to note that participants overwhelmingly believe that being included on discussion regarding facility renovations/upgrades would assist in promoting community building on campus.

Second, in terms of differences between The Chamberlain Student Center in promoting campus community, and other buildings on campus, the data shows that while there is a difference between The Chamberlain Student Center and participant's academic buildings, participants are more likely to view the Recreation/Fitness Center, and the Campbell Library as being equally effective at promoting campus community.

Recommendations for Practice

Based on the findings and conclusions of the study, the following recommendations for practice are being proposed:

1. Focus on the experience that students get by using the space more so than the space itself.
2. Engage with students who regularly use The Chamberlain Student Center when it comes to talks about renovations and facility upgrades.
3. Communicate with other departments/buildings on campus and share research on this topic to assist in integrating community building.

Recommendations for Further Research

Based on the findings of the study, the following recommendations for future research are being proposed:

1. Obtain data that uncovers more about ways to manipulate the physical space within a college union to enhance the student experience.
2. Conduct this study at different institutions to see how the results compare to Rowan University.

3. Obtain more responses to ensure generalizability across the institution.
4. Conduct this study using faculty and staff to gain a different perspective.

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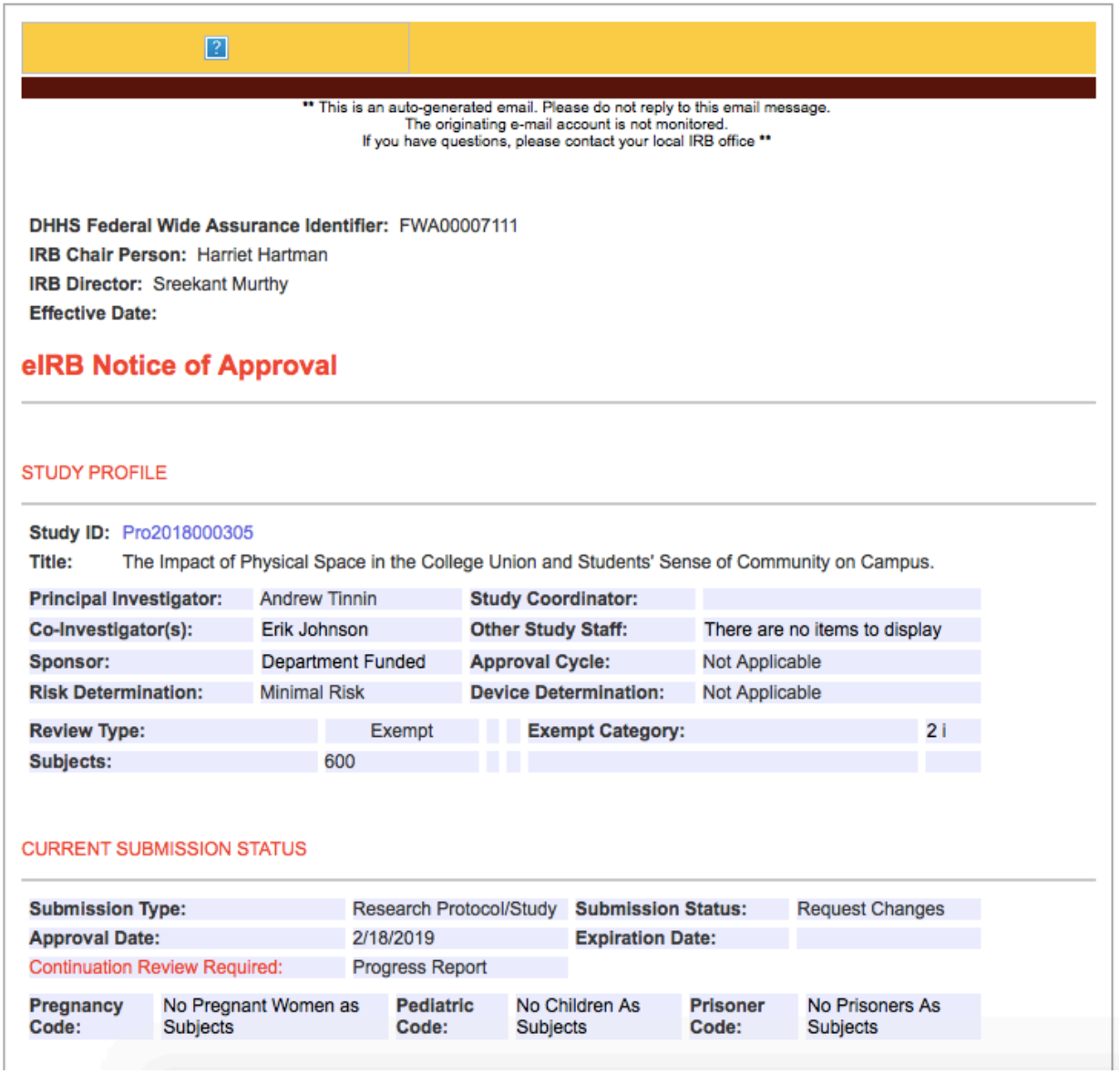
Appendix A

Institutional Review Board Approval



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DHHS Federal Wide Assurance Identifier: FWA00007111
IRB Chair Person: Harriet Hartman
IRB Director: Sreekant Murthy
Effective Date:

eIRB Notice of Approval

STUDY PROFILE

Study ID: Pro2018000305
Title: The Impact of Physical Space in the College Union and Students' Sense of Community on Campus.

Principal Investigator:	Andrew Tinnin	**Study Coordinator:**	
Co-Investigator(s):	Erik Johnson	**Other Study Staff:**	There are no items to display
Sponsor:	Department Funded	**Approval Cycle:**	Not Applicable
Risk Determination:	Minimal Risk	**Device Determination:**	Not Applicable

Review Type:	Exempt	**Exempt Category:**	2 i
Subjects:	600		

CURRENT SUBMISSION STATUS

Submission Type:	Research Protocol/Study	**Submission Status:**	Request Changes
Approval Date:	2/18/2019	**Expiration Date:**	
Continuation Review Required:	Progress Report		

Pregnancy Code:	No Pregnant Women as Subjects	**Pediatric Code:**	No Children As Subjects	**Prisoner Code:**	No Prisoners As Subjects

Protocol:	Protocol Document.docx IRB Consent Form.docx IRB Email Template.docx IRB Link to Survey.docx	**Consent:**	There are no items to display	**Recruitment Materials:**	There are no items to display

*** Study Performance Sites:**

Glassboro Campus 200 Mullica Hill Road Glassboro, NJ 08028

There are no items to display

ALL APPROVED INVESTIGATOR(S) MUST COMPLY WITH THE FOLLOWING:

1. Conduct the research in accordance with the protocol, applicable laws and regulations, and the principles of research ethics as set forth in the Belmont Report.

2a. **Continuing Review:** Approval is valid until the protocol expiration date shown above. To avoid lapses in approval, submit a continuation application at least eight weeks before the study expiration date.

2b. **Progress Report:** Approval is valid until the protocol expiration date shown above. To avoid lapses, an annual progress report is required at least 21 days prior to the expiration date.

3. **Expiration of IRB Approval:** If IRB approval expires, effective the date of expiration and until the continuing review approval is issued: **All research activities must stop unless the IRB finds that it is in the best interest of individual subjects to continue. (This determination shall be based on a separate written request from the PI to the IRB.) No new subjects may be enrolled and no samples/charts/surveys may be collected, reviewed, and/or analyzed.**

4. **Amendments/Modifications/Revisions**: If you wish to change any aspect of this study after the approval date mentioned in this letter, including but not limited to, study procedures, consent form(s), investigators, advertisements, the protocol document, investigator drug brochure, or accrual goals, you are required to obtain IRB review and approval prior to implementation of these changes unless necessary to eliminate apparent immediate hazards to subjects. This policy is also applicable to progress reports.

5. **Unanticipated Problems**: Unanticipated problems involving risk to subjects or others must be reported to the IRB Office (45 CFR 46, 21 CFR 312, 812) as required, in the appropriate time as specified in the attachment online at: http://www.rowan.edu/som/hsp/

6. **Protocol Deviations and Violations**: Deviations from/violations of the approved study protocol must be reported to the IRB Office (45 CFR 46, 21 CFR 312, 812) as required, in the appropriate time as specified in the attachment online at: http://www.rowan.edu/som/hsp/

7. **Consent/Assent**: The IRB has reviewed and approved the consent and/or assent process, waiver and/or alteration described in this protocol as required by 45 CFR 46 and 21 CFR 50, 56, (if FDA regulated research). Only the versions of the documents included in the approved process may be used to document informed consent and/or assent of study subjects; each subject must receive a copy of the approved form(s); and a copy of each signed form must be filed in a secure place in the subject's medical/patient/research record.

8. **Completion of Study:** Notify the IRB when your study has been completed or stopped for any reason. Neither study closure by the sponsor nor the investigator removes the obligation for submission of timely continuing review application, progress report or final report.

9. The Investigator(s) did not participate in the review, discussion, or vote of this protocol.

10. Letter Comments: *There are no additional comments.*

Appendix B

Chamberlain Student Center & Campus Activities (SCCA) Letter of Support

RowanUniversity

December 4, 2018
Rowan University
201 Mullica Hill Rd.
Glassboro, NJ 08028

IRB Letter of Support

Principle Investigator: Dr. Andrew Tinnin
Co-Investigator: Erik Johnson

Dear Institutional Review Board Chair and Members,

I am writing this letter of support of current graduate student Erik Johnson. On behalf of The Chamberlain Student Center & Campus Activities department we intend on supporting the research study described below:

Research Overview:

1. Purpose

   This study sought to add to the literature by providing more research on the impact of physical space within The Chamberlain Student Center, and how this space impacts undergraduate students' sense of community on campus at Rowan University. Furthermore, this study examined how undergraduate students perceive The Chamberlain Student Center facility, and how the facility relates to their perceptions of campus community. Students participating in this study were asked to identify specific aspects of the Chamberlain Student Center facility that either positively or negatively impact campus community and were asked to compare how The Chamberlain Student Center facility compares to other buildings on Rowan University's campus in building community.

2. Research Questions

   1. Is there a relationship between the physical space of a college union and student's sense of community on campus?

   2. Is there a statistically significant difference between how the physical space of a college union impacts student's sense of community, and how other physical spaces on campus impact student's sense of community?

Sincerely,

Tina Pinocci, pinocci@rowan.edu
Associate VP for Campus Rec & SCCA

Chamberlain Student Center & Campus Activities
201 Mullica Hill Road, Glassboro, NJ 08028
T: 856-256-4602

rowan.edu/scca

Appendix C

Final Survey Instrument

Demographic

What year are you at Rowan?

- ❍ Freshman
- ❍ Sophomore
- ❍ Junior
- ❍ Senior

Did you transfer to Rowan?

- ❍ Yes
- ❍ No

In what college is your major? (i.e. Rohrer College of Business, The College of Education, etc.)

- ○ Fill in blank (list Colleges)
- ○ Undecided

How many credits are you taking this semester?

- ○ 9 or less
- ○ Between 12-15
- ○ 18 or greater

Do you live on-campus?

- Yes
- No

The Chamberlain Student Center

On average, how often would you say you visit The Chamberlain Student Center?

- ❍ Multiple times a day
- ❍ Daily
- ❍ Weekly
- ❍ At least once a month
- ❍ At least once per semester
- ❍ I have not visited

What services do you most often utilize when visiting The Chamberlain Student Center?

- ❑ Information Desk
- ❑ Meeting Spaces
- ❑ Marketplace
- ❑ The Game Room
- ❑ Prof's Place
- ❑ Laundry Room
- ❑ The Pit
- ❑ The Back Patio
- ❑ Other……..

How would you rate your overall experience in the spaces selected?

- ❑ Very Satisfied
- ❑ Satisfied
- ❑ Neither Satisfied or Dissatisfied
- ❑ Dissatisfied
- ❑ Very Dissatisfied

Campus Community

How important do you believe having a sense of community on campus to be?

- ❍ Very Important
- ❍ Important
- ❍ Moderately Important
- ❍ Slightly Important
- ❍ Not Important

In general, Rowan University promotes building campus community?

- ❍ Strongly Agree
- ❍ Agree
- ❍ Neither agree nor disagree
- ❍ Disagree
- ❍ Strongly Disagree

In general, the physical space of The Chamberlain Student Center plays a major role in building campus community.

- ❍ Strongly Agree
- ❍ Agree

- ❍ Neither agree nor disagree
- ❍ Disagree
- ❍ Strongly Disagree

Which physical spaces of the Chamberlain Student Center would you consider as having a positive impact on building campus community? Check all that apply.

- ❑ Information Desk
- ❑ Meeting Spaces
- ❑ Marketplace
- ❑ The Game Room
- ❑ Prof's Place
- ❑ Laundry Room
- ❑ The Pit
- ❑ The Back Patio
- ❑ Other……..

Of all the above that you checked off is there ONE space that you think is most important to building community? If so, please select which space.

- ❍ Information Desk
- ❍ Meeting Spaces
- ❍ Marketplace
- ❍ The Game Room
- ❍ Prof's Place
- ❍ Laundry Room
- ❍ The Pit
- ❍ The Back Patio
- ❍ Other……..

Which physical spaces of the Chamberlain Student Center would you consider as having a negative impact on building campus community? Check all that apply.

- ❑ Information Desk
- ❑ Meeting Spaces
- ❑ Marketplace
- ❑ The Game Room
- ❑ Prof's Place
- ❑ Laundry Room
- ❑ The Pit
- ❑ The Back Patio
- ❑ Other: ……

Of all the above that you checked off is there ONE space that you think is least important to building community? If so, please select which space.

- ❍ Information Desk
- ❍ Meeting Spaces
- ❍ Marketplace
- ❍ The Game Room
- ❍ Prof's Place
- ❍ Laundry Room
- ❍ The Pit
- ❍ The Back Patio
- ❍ Other……..

Are there other space(s) and/or spaces on campus that make a positive impact on building campus community?

Are there other space(s) and/or spaces on campus that make a negative impact on building campus community?

How would you rate The Chamberlain Student Center in building campus community in comparison to your academic building?

- ❍ Much better
- ❍ Somewhat better
- ❍ About the same
- ❍ Somewhat worse
- ❍ Much worse
- ❍ I don't utilize an academic building

How would you rate The Chamberlain Student Center in building campus community in comparison to the Campbell Library?

- ❍ Much better
- ❍ Somewhat better
- ❍ About the same
- ❍ Somewhat worse
- ❍ Much worse
- ❍ I don't utilize the Campbell Library

How would you rate The Chamberlain Student Center in building campus community in comparison to the Rec Center/Fitness Center?

- ❍ Much better

- ❍ Somewhat better
- ❍ About the same
- ❍ Somewhat worse
- ❍ Much worse
- ❍ I don't utilize the Rec Center/Fitness Center

How would you rate The Chamberlain Student Center in building campus community in comparison to _____?

- ❍ Much better
- ❍ Somewhat better
- ❍ About the same
- ❍ Somewhat worse
- ❍ Much worse
- ❍ I don't utilize the Rec Center/Fitness Center

Would being included in discussions regarding facility renovations of the Chamberlain Student Center be helpful in building campus community?

- ❍ Yes
- ❍ No

Thank you for taking this survey! Your answers to the questions are important in understanding how the physical space of The Chamberlain Student Center impacts student's sense of community on campus.

Would you like to be entered into a raffle in which 50 participants will be selected at random to receive a Chamberlain Student Center promo item?

- ❍ Yes
- ❍ No

Insert box for student to be able to enter their email so that I have a way to communicate with the winners of the promotional items