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An Exploratory Analysis on the Lived Experiences of First-Year Students Participating in Living Learning Communities on a College Campus

Cody James Lindbloom
University of Arkansas, Fayetteville

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by

Cody James Lindbloom
Pittsburg State University
Bachelor of Science in Psychology, 2017
Pittsburg State University
Master of Science in Psychology, 2019
University of Arkansas
Graduate Certificate in Applied Behavior Analysis, 2020

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University of Arkansas

This dissertation is approved for recommendation to the Graduate Council.

_____
Peggy Whitby-Schaefer, Ph.D.
Dissertation Chair

_____
Tom Smith, Ph.D.
Committee Member

_____
EmmaLe Davis, Ed.D.
Committee Member

ABSTRACT

Living learning communities in higher education involve students living in a shared residence space and a faculty or staff member leading various activities. These communities have been shown to help students transition to and retain in higher education, promote higher grade point averages, and provide peer support. However, only a limited number of published studies have shown the benefits for students who may have adverse experiences because they come from diverse backgrounds. The purpose of this study was to explore the perceived social support received and the benefits of the support across a sample of first-semester living learning community students with and without risk factors who lived in different learning communities at a large four-year public university. This study used a behavior systems analysis tool to capture perceived living learning community social support. The behavior systems analysis tool allowed the researcher to explore the supports at the system level and to focus on social support which has been determined to be a predictive variable for higher education retention. Students gave reports suggesting programming had, at times, aligned with recommended practices, yet differences were found across different disciplines of living learning communities. Findings are discussed in relation to diversity of the participant and recommendations for future research is provided.

Keywords: living learning communities, behavior systems analysis, risk factors

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DEDICATION

I dedicate this dissertation to my family. Thank you for always believing in me and for pushing me to be the best I can be.

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CHAPTER ONE: INTRODUCTION

Retention Rates

Student retention in higher education is when a student attends an institution and returns to that same institution to continue their studies (Gardner, 2022; Tinto, 1993). One concern is that there has been a decline in retention rates across the nation, in the state of Arkansas, and at the University of Arkansas for students with and without risk factors (Gardner, 2022; University of Arkansas, October 26). Because students with risk factors have been shown to have difficulty pursuing higher education degrees (Horn, et al. 1999; Mamiseishvili & Koch, 2011), utilizing a retention program could combat withdrawal (Dale, 1995; Schelbe, 2019). One retention approach, using a living learning community (Inkelas et al., 2018), has not only been shown to promote student retention (Stassen, 2003) but has been shown to help students with one particular risk factor: those who identify as first-generation higher education students (Hall & O'Neal, 2016; Inkelas et al., 2007). Given the limited research on students with risk factors in living learning communities, there is a need for an evaluation of the current programming provided to students within these communities. This chapter discusses the foundation for a study to explore the provided programming to students with and without risk factors in living learning communities.

Retention rates have dropped across the nation, the state of Arkansas, and within the University of Arkansas (Gardner, 2022; University of Arkansas, 2022, October 26). One current national and state report, Gardner (2022), shows consistent retention trends at the national level as well as within the state of Arkansas. At the national level and within the state of Arkansas, this report shows that students 20 years and younger had difficulty retaining from 2019 to 2020. When compared to a report from the University of Arkansas (2022, October 26), the data

indicated an increase in first-year retention from 2019 to 2020 before dropping in 2021. In 2021, there were drops in retention for almost all colleges at the University of Arkansas and drops in retention for many ethnic groups on campus (i.e., Black students, Latinx students, etc.).

Risk Factors for Students in Higher Education

Students with risk factors, such as those identifying with a non-White ethnicity or race (Astin, 1997; Murtaugh et al., 1999), are less likely to retain. It is not the student's non-White ethnicity or race that is hindering these students, but the prejudicial societal barriers (i.e., racism, see Swim et al., 2003) that impede their academic progress. Common societal barriers include racism (Clayton, 2019; Griffith et al., 2017; Reynolds et al., 2010; Swim et al., 2003; Wu, 2021), cisgenderism and heterosexism (Brown et al., 2004; Woodford et al., 2018), classism (Allan et al., 2016, Allan et al., 2020, Allan et al., 2023; Langhout et al., 2009), and ableism (Abes & Wallace, 2018; Barnard-Brak et al., 2010; Druckman et al., 2021; Kamperman, 2020; Lund & Ross, 2021; Smith et al., 2021).

Racism in Higher Education

Racism, the discrimination of others based on race, has been reported in the literature (Clayton, 2019; Griffith et al., 2017). Black students have reported being ignored by peers and faculty, excluded from study groups, called racial slurs, and turned away from Greek parties (Griffith et al., 2017). The exclusion of Black students is not an exclusive experience in Griffith et al. (2017) but was also reported in Clayton (2019). Biracial students have reported believing that Greek organizations (at a predominantly White institution) would not accept Black students due to prejudice. These students also reported how Black Greek organizations felt like they were looked down upon by predominantly White Greek organizations because they did not have a Greek house.

Cisgenderism and Heterosexism in Higher Education

Cisgenderism and heterosexism, like racism, plague higher education (Woodford et al., 2018). Cisgenderism is discrimination against others based on persons who have a gender that does not align with their birth-given sex (Lennon & Mistler, 2014), while heterosexism is discrimination against individuals who engage in non-heterosexual behaviors (such as same-sex relationships) (Herek, 2004). The effects of cisgenderism and heterosexism have been shown to lead to victimization and interpersonal microaggressions, which ultimately leads to suicide attempts and mental health issues (Woodford et al., 2018).

Classism in Higher Education

Ethnicity/race, sexual diversity, and gender are not the only risk factors students in higher education may be discriminated by. Classism is the discrimination of others based on their social class (Langhout et al., 2009). This form of discrimination has led to psychological difficulties, students feeling that they do not belong in higher education, and withdrawal (Langhout et al., 2009).

Ableism in Higher Education

Although there is legislation to help level the playing field for students with disabilities in higher education (i.e., Americans with Disabilities Act, 1990; Section 504 of the Rehabilitation Act, 1973), ableism, which is placing privilege on those who are perceived to be more able-bodied and minded than others (Linton, 1998), is a lens that must also be considered in higher education. Examples of ableism in higher education include faculty being non-compliant in providing approved accommodations (Smith et al., 2021) and viewing students with physical disabilities as more deserving than students with non-physical disabilities (Druckman et al.,

2021). Consequently, the landscape of ableism in higher education has made students feel overlooked and unable to connect (Abes &Wallace, 2018).

Students with Risk Factors and Societal Barriers

The literature has indicated that racism (Clayton, 2019; Griffith et al., 2017; Reynolds et al., 2010; Swim et al., 2003; Wu, 2021), cisgenderism and heterosexism (Brown et al., 2004; Woodford et al., 2018), classism (Allan et al., 2016, Allan et al., 2020, Allan et al., 2023; Langhout et al., 2009), and ableism (Abes & Wallace, 2018; Barnard-Brak et al., 2010; Druckman et al., 2021; Kamperman, 2020; Lund & Ross, 2021; Smith et al., 2021) are evident in higher education. What the literature also indicates is that it is unlikely for a student to be affected by just one societal barrier (i.e., racism) (Crenshaw, 1989; Collins & Bilge, 2020; Kamperman, 2020; Miller, 2015).

An example of simultaneous societal barriers affecting a student can be found in Miller (2015). This study describes the experience of a biracial transgender student with mental health difficulties who disclosed struggling with communicating these challenges to instructors. Students in situations, like the one described in Miller (2015), would not only have to combat ableism as a student with mental health concerns but also racism and cisgenderism as a biracial transgender student. The reports from Miller (2015) reinforce why it is imperative that researchers and higher education professionals do not restrict students to specific risk factors because it overlooks the diverse characteristics of the person. We should acknowledge that students may experience an intersection of identities with accompanying societal barriers.

Retention Research

The retention rates at the national level, within the state of Arkansas, and at the University of Arkansas show the current landscape of retention by percentage (Gardner, 2022;

University of Arkansas, 2022, October 26), but these numbers do not answer questions regarding why students retain, nor do they indicate an understanding of the retention of students who may have risk factors. Empirical models such as Spady (1970) and Tinto (1975), do, however, give clarity on why students retain. These models have proposed that social integration, academic integration, and institutional commitment promote retention in higher education. Specifically, Spady's (1970) retention model indicated that academic performance, friendship, and intellectual development influence social integration; social integration then influences institutional commitment. Tinto (1975), like Spady (1970), emphasized how both academic and social integration leads to institutional commitment, and how these components influence retention.

One common factor from each of these models is social integration (Spady, 1970, 1971; Tinto 1975). Social integration has been shown to greatly benefit students, such as females who have had strong relations with others and males who had low levels of commitment to pursuing higher education (Pascarella & Terenzini, 1979). Past literature specifically supports the belief that peer and faculty support is needed to help retain students (Pascarella & Terenzini, 1979; Spady, 1971).

Retention Programs and Living Learning Communities

Retention programs have been shown to help students with risk factors by promoting higher graduation rates (Dale, 1995), higher GPAs (Sallinitri, 2004), and the completion of courses (Sallinitri, 2004). Given our knowledge that social integration has a positive impact on student retention (Pascarella & Terenzini, 1979; Spady, 1971) and how retention programs for students with risk factors have utilized components from living learning communities with success (Dale, 1995; Schelbe, 2019), using living learning communities (as described in Inkelas et al., 2018) may be a desirable strategy to help promote retention for students with risk factors.

Living learning communities involve students living together in a common space and being provided co-curricular opportunities (Inkelas et al., 2018). Results from past studies evaluating living learning communities have found that they promote retention (Stassen, 2003), higher GPAs (Stassen, 2003), and belonging (Spanierman et al., 2013). Not only have living learning communities provided positive outcomes for students in higher education, but theoretical stances (i.e., Bronfenbrenner, 1993) have described how various components of living learning communities can fit into a theoretical framework. In fact, Jessup-Anger et al. (2019) demonstrate how Bronfenbrenner's (1993) ecological systems theory can be applied to living learning communities.

Living Learning Communities and Students with Risk Factors

Evidence has shown that students with one specific risk factor, first-generation students, have benefited from living learning communities (Hall & O'Neal, 2016; Inkelas et al., 2007). For instance, Inkelas et al. (2007) found that first-generation students who lived in living learning communities had more reports of perceived ease in transitioning into higher education compared to the first-generation students who did not participate in a living learning community. Given that studies like Inkelas et al. (2007) have shown that an at-risk group of students (first-generation students) had an easier transition into higher education due to living and participating in a living learning community, research regarding other at-risk populations that evaluate their experiences in living learning communities needs to be addressed so other students with varying risk factors can be helped.

Living Learning Communities and Intersectionality

Past living learning community investigations have focused on first-generation students (Hall & O'Neal, 2016; Inkelas et al., 2007), which leads to the question of whether living

learning communities are providing programming to all students, regardless of risk factors, based on the recommended practices from Inkelas et al. (2018) and if the provided programming had met their expectations. An advantage to incorporating intersectionality in future investigations, as discussed by Nichols and Stahl (2019), is that it can help provide focus on the unequal policies and strategies being executed in higher education. Keeping intersectionality at the forefront of a study regarding students with risk factors will help prevent viewing these students at a surface level; will give the scientific community a better understanding of what programming is provided to students with various risk factors; and if the programming is meeting their expectations.

Organizational Behavior Management

In keeping an intersectionality lens at the forefront of this study, using an organizational behavior approach (Wilder et al., 2009) may be beneficial in determining the provided programming and the met expectations from students with varying risk factors. Organizational behavior management (OBM) is an area of behavior analysis that uses behavioral principles to promote desirable behaviors from individuals within organizations (Wilder et al., 2009). One aspect of OBM, a behavior systems analysis (Diener et al., 2009; Wilder et al., 2009), could help determine what programming is provided to students with risk factors who participate in living learning communities and if their expectations were met (i.e., programming feedback). Tailoring recommended practices from living learning communities (as described in Inkelas et al., 2018) to a behavior systems analysis tool (Diener et al., 2009) could help determine deficits in programming for all students (regardless of risk factors) who may be participating in these communities.

Rational for a Behavior Systems Analysis

Bronfenbrenner's (1993) ecological systems theory has been used to describe living learning communities (see Jessup-Anger et al., 2019). Yet given that Bronfenbrenner (1993) is a general systems theory, its strength comes from its reliance on other theories (Christensen, 2016). Using a behavior systems analysis (Diener et al., 2009; Wilder et al., 2009) is a strong approach to use when studying living learning communities because it evaluates the structures within the organization to determine strengths and weaknesses in provided support (see Diener et al., 2009) instead of emphasizing student success based upon student relationships and characteristics (Bronfenbrenner, 1993). Using a behavior systems analysis puts the focus on minimizing program deficits to help students be successful as opposed to putting the blame on the students for not finding success; this approach mirrors the change from institutions blaming students for retention difficulties instead of looking at adjustments that could be made at the institution (Tinto, 2006).

Statement of Purpose

The purpose of this research is to conduct an exploratory survey study of living learning communities to determine the perceived social support, provided programming, and student feedback for students with and without reported risk factors. One reason for this study is that there is a gap in the literature in which there is a limited number of empirical investigations regarding the outcomes of students with risk factors in living learning communities beyond that of first-generation students (Hall & O'Neal, 2016; Inkelas et al., 2007). Thus, the current study will address first-generation as well as other students with risk factors within living learning communities by determining the provided programming, provided support, and met expectations.

A second reason for this study is to use a behavior systems analysis (see Diener et al., 2009). Implementing questions modified from Diener et al. (2009) would provide the scientific community the opportunity to demonstrate the integration of an organizational behavior management approach (Diener et al., 2009; Wilder et al., 2009) to identify gaps in the implementation of living learning community programming.

Research Questions

Based on the purpose of this study and guided by questions from Diener et al. (2009), the research questions for this study were the following:

1. What are the student perceptions of social support and programming provided by living learning communities?
2. Do students' perceived levels of social support and programming in living learning communities meet their expectations?
3. Do various groups of students have differing views of perceived social support, programming, and desired needs than others?

Limitations and Delimitations

The participants in this study were living learning community students at the University of Arkansas who were willing to participate. Because of this, the responses and views collected for this study had not encompassed the views of all students who participated in living learning communities. The delimitations for the study were based mostly on the type of student. Specifically, the delimitation for this study was first-year students in living learning communities at the University of Arkansas in which data was analyzed based on responses to questions regarding their first semester.

CHAPTER TWO: LITERATURE REVIEW

Reviewing past literature on any area of interest is needed so that there is an understanding of the established body of knowledge. By reviewing past literature, the investigator may find opportunities to strengthen the current understanding of a topic to minimize gaps in the literature. This chapter reviews the literature pertaining to retention rates in higher education; retention research; students with risk factors; diverse students and accompanying societal barriers; the intersection of societal barriers; retention programs; living learning communities; and OBM.

Retention Rates in Higher Education

Gardner (2022) shows retention rates up to the year 2020, demonstrating the most currently published retention data at the national level. Although the retention rates at the national level varied and showed reports of only certain types of retention data, there were key findings. For instance, the available data showed a decrease in retention for overall full-time students (i.e., public, private, for-profit, two-year, and four-year institutions) as well as full-time four-year public students. Regardless of institution type, there was a drop in retention for Latinx, Black, and Native American students; for business and biological/biomedical science majors; and for students 20 years and younger.

At the state level, Arkansas had a drop in overall retention. Similar to the overall full-time and full-time four-year public institution retention rates, there was a 1.6% drop from 2019 (65.3%) to 2020 (63.7%) for overall retention (Gardner, 2022). The age group affected the most was students from the overall population who were 20 years and younger, in which there was a 2.3% change from 2019 (67.4%) to 2020 (65.1%).

University of Arkansas Retention

One of Arkansas' four-year public institutions, the University of Arkansas, also had a drop in retention (University of Arkansas, 2022, October 26). The University of Arkansas' (2022, October 26) most up-to-date retention report showed that since 2021, there have been drops in overall student retention, retention by gender, retention by ethnicity, and retention by college.

While there was a 2.4% increase in retention from 2019 (84.7%) to 2020 (87.1%) for full-time freshman students, there was also a 1.5% drop in retention from 2020 (87.1%) to 2021 (85.6%). By gender, both male and female students had dropped in retention since 2020. For many ethnicities/races, there were raises in retention from 2019 to 2020 before there were declines from 2020 to 2021. Since 2020, there were drops in retention from Native American and Alaskan Native students, Asian students, Black students, Latinx students, students of unknown ethnicities, and White students. Except for the College of Engineering, which had an increase in retention, all remaining colleges within the University of Arkansas had decreases in retention rates since 2020.

Retention Models and Research

Historically, students rather than institutions were blamed for poor retention rates (Tinto, 2006). Instead, internal characteristics were believed to be why students either retained or withdrew from higher education institutions (Tinto, 2006). A wave of 1970s research, however, sparked insight into why students left the university (Spady, 1970; Spady, 1971; Tinto, 1975). The following provides an overview of the retention models found in the literature.

Spady

One of the influential models for retention was developed by Spady (1970). This model emphasizes how student attributes interact with various expectations, demands, human influences, and courses. In this model, it is believed that grade performance and intellectual development lead to academic integration and that peer-group and faculty interactions lead to social integration. Once the student is academically and socially integrated, and assuming the student still has a strong commitment to their goals, the student must then demonstrate institutional commitment and a renewed commitment to their goals to prevent failing to complete their degree.

The key to this theoretical perspective is that students must be committed to the social and academic systems to have the opportunity to remain in higher education. To stay committed to the social system and to integrate academically, students would need to experience positive outcomes during their time in higher education. These positive experiences must include success in the classroom (i.e., making good grades and deepening knowledge) but also having interactions with peers and professors. If a student is missing one of these components, then they are at risk of completing their degree.

In 1971, Spady applied his retention model within a longitudinal study to evaluate the established variables and their roles in student retention. In this longitudinal study, Spady (1971) sent two questionnaires during the fall semester of 1965 and during the spring semester of 1966 to freshman students to gauge their (a) cultural and social life, motivators and expectations in higher education, family and high school information, and close relations and intellectual capacity; and (b) their college experience, growth during their time in higher education, and current attitudes. Grade averages from this sample were also collected.

By using multiple regression techniques, Spady yielded notable findings. First, Spady found that grade performance, while it was a strong influence on dropout, was the strongest influence toward satisfaction in higher education in males. The findings from this study also suggested that males were more open to change based on social and intellectual influence. Women, however, were not found to be as open to change as males. Although a commitment to the university begins early in this model, females' commitment was not found to fluctuate. These female students held social integration as their strongest influence towards satisfaction in higher education and had their commitment to the university being one of their most influential factors promoting dropout.

Social interactions with faculty and peers were also found to benefit students. Spady's findings suggest that intellectual growth was influenced by interactions with faculty more than contacts with students' peers. Even though faculty interactions had provided more growth, the influence of friendships with peers was strong regardless of the apparent differences between men and women. Interaction for both males and females regarding their friendships with peers promoted relations with other peers. Males who had success in gaining relations with peers in high school, who were not overly critical regarding society, and who had a sense of personal security were able to gain friends with their peers. Female friendships, however, were more impacted by normative congruence and family background. These close relations for females influenced whether they continued at the university. Specifically, females were found to be more likely to retain if they had their interpersonal needs met; men were likely to retain if they could meet the academic standards of their instructors.

The findings from the study indicate that the previous model (Spady, 1970) needed to be revised to align with the findings from the current study. The current model combined the

variable of friendship support and structural relations while the original model only had friendship support. Further, the variables of social integration, satisfaction, and then institutional commitment were changed to reflect that the social integration variable would influence both satisfaction and institutional commitment, with satisfaction influencing institutional commitment.

Tinto

In a similar model to that of Spady (1971), Tinto (1975) aimed to evaluate his own model that would explain attrition and would be consistent with operational definitions of attrition (i.e., voluntary withdraw instead of academic failure). Tinto's perspective suggested that if researchers could adequately discriminate between voluntary attrition and academic failure, then it would allow university administrators to determine how to help students given that the characteristics of students who voluntarily withdraw are different from those who leave due to academic failure. Because of these issues, Tinto synthesized the available literature to attempt to formulate an explanatory theoretical model of attrition to help determine the various interaction processes between the university and its students that ultimately result in student withdrawal (either voluntarily or involuntarily).

According to Tinto's model, dropout is a process that begins with students' family background (i.e., relations with family members and the family's socioeconomic status), individual attributes (i.e., the student's flexibility), and pre-college schooling (i.e., class-rank and quality of their previous high school). These three factors influence the students' goal commitment (i.e., the student's desire to complete a college degree) and institutional commitment (i.e., the student's expectations of the university from which they are attending). Goal commitment, according to this model, leads to grade performance and intellectual

development; intellectual growth then leads to peer-group interaction and faculty interactions. To persist in higher education, the student will not only have to earn sufficient grades to continue studying at the university and to experience intellectual growth (to achieve academic integration) but will also need to experience both peer-group and faculty integrations (to achieve social integration). If the student has high levels of academic and/or social integration, then, according to Tinto's model, the student will have high levels of goal and/or institutional commitment which would then promote retention. If the student has low levels of academic and/or social integration, then the student may not achieve the levels of goal and/or institutional commitment needed to retain in higher education.

Pascarella and Terenzini

Spady (1970), Spady (1971), and Tinto (1975) provided insight regarding retention and attrition among undergraduate students, yet there had not been a published study at that time regarding voluntary student attrition that evaluated the main and interaction effects of academic and social integration until Pascarella and Terenzini (1979). Pascarella and Terenzini sent questionnaires to incoming freshmen in July 1976 and aimed to determine what students expected to experience during their time at the university. During the subsequent spring semester, these same students were sent a follow-up questionnaire to determine if their expected experiences were achieved. In this study, the researchers used a two-group discriminant function analysis to analyze the following variables: pre-enrollment characteristics, academic integration variables, social integration variables, and institutional/goal commitment scale variables.

Like Spady (1971), relations with peers were influential in promoting students to continue their education. The findings from this study suggested that the quality of peer relationships was more influential for women. Female students who had a strong affinity to

completing their degree were the most influenced by their peers to not withdraw. For some males, however, relations with peers were not beneficial. It was found that those males who pursued a liberal art degree (as opposed to a pre-professional degree) were more likely to withdraw from the university due to peer interactions.

Not only do the results regarding relations with peers in Pascarella and Terenzini (1979) align with Spady (1971), but the results also show the benefits of faculty contact. For instance, faculty contact was found to promote those women whose relations with their peers were low and those women who had parents with low levels of education to continue to pursue their degrees. Coinciding with women whose relations with their peers were low, faculty contact promoted men whose commitment to pursuing higher education was low to persist in pursuing their degrees. Other findings for males include that the perceptions of faculty members' concern regarding their students and the faculty members' teaching influenced males with low intellectual development satisfaction to continue to pursue their education.

Spady (1971) expressed how it could be possible that social contact from faculty could help promote retention. The finding that faculty contact with female students who have low levels of peer interactions promoted persistence to graduation from Pascella and Terenzini (1979) aligns with past findings from Spady (1971) and Tinto (1975) indicating how social interaction can ultimately lead to retention until graduation.

Pascarella and Terenzini's (1980) contributions led to a strategy to determine who chose to withdraw and who chose to continue pursuing their degrees. Pascarella and Terenzini had constructed a social and academic integration measure (based on Tinto, 1975) to determine, with students' characteristics at a constant (e.g., the number of extracurricular activities participated in high school and gender), if social and academic integration could predict freshmen who

voluntarily withdraw and freshmen who continue pursuing their degrees. After using discriminant analysis techniques, the results of the study indicated that the measure had strong predictive validity to determine students who would continue pursuing their degrees and who would withdraw.

In addition to the past literature that suggested faculty contact is important (Pascarella & Terenzini, 1979; Spady, 1970, Spady, 1971, & Tinto, 1975), Pascarella & Terenzini (1980) also confirmed the importance of faculty contact. These researchers found that students who had relations with faculty were more likely to continue pursuing their education. Data from this study using a social and academic measurement tool indicated that students who continued pursing their education had scored roughly a standard deviation above the mean on the "faculty concern for student development and teaching" and "interactions with faculty" scales as opposed to those students who withdrew. These findings suggested that faculty involvement is a predictive variable in students continuing to pursue a higher education degree.

Terenzini, Lorang, and Pascarella

Although the measure was effective in predicting students who stayed at their institution or withdrew, Terenzini, Lorang, and Pascarella (1981) replicated the findings in Pascarella and Terenzini (1979) to determine if their results from their predictive study were phenomena and if the results from the past study could be replicated if a new sample from a different institution was used. The researchers had freshmen complete a similar measure from that of Pascarella and Terenzini, (1979) over the summer which gauged various student information, including their education expectations and goals. During the spring semester, students were sent a second questionnaire to determine their experiences and attitudes as freshmen. Like Pascarella and Terenzini (1979), Terenzini, Lorang, and Pascarella's (1981) results were indicative that the

measure could predict students who stayed or withdrew. However, the results from the faculty scales did not yield similar results to Pascarella and Terenzini (1979). Given that Pascarella and Terenzini (1979) found that males had a slightly higher likelihood to stay due to faculty contact, Terenzini, Lorang, and Pascarella (1981) believed that this finding was not replicated due to either (a) the predisposition of faculty between the institutions (given that Pascarella and Terenzini, 1979, involved a university that had faculty as academic advisors opposed to Terenzini, Lorang, and Pascarella (1981) whose study had a designated group of academic advisors), (b) there being an over-representation of females in their current sample, and/or (c) sampling error.

Bean

Bean (1979, April), similar to Spady (1970, 1971) and Tinto (1975), created a model depicting student attrition. Bean's model, which was based on employee turnover, emphasizes how organizational factors affect student retention. With an employee lens, "compensation from the institution to the student" promotes retention. In other words, the organizational factors that may cause a student to stay include their grade point average, development and institutional quality, and the likelihood that they can obtain a job upon completing their degree. A regression analysis and path analysis were used upon sending questionnaires to freshman composition students to test this model. The first finding was that Bean's model could help determine if students retained in higher education. In both instances, commitment to the institution was not found in males or females who had not retained. Other notable findings for males who had not retained include not being familiar with the social or academic rules of their institution and not having high grade point averages. Key findings for females who did not retain, on the other hand, were those who had not participated in organizations, had not felt they were treated fairly,

had not experienced informal faculty and staff contact, and had no commitment to earning a bachelor's degree.

Bean (1985) later proposed a new model of student attrition which was distinct from Bean (1979, April). Bean (1985) proposed that academic factors (i.e., academic integration) and social-psychological factors (i.e., faculty contact) lead to socialization and selection factors before leading to dropout syndrome. However, environmental factors (i.e., finances) were believed to lead to dropout syndrome as well. To test this model, Bean sent questionnaires to students gauging them on variables associated with the model (i.e., social life). First, Bean found that students benefited from social interactions with peers as opposed to social interactions with faculty, which adds to the social literature regarding faculty contact (Pascarella & Terenzini, 1979, 1980; Spady, 1970, Spady, 1971, & Tinto, 1975). In congruence with past literature (Bean, 1979, April; Spady, 1970; Spady 1971; Tinto, 1975) the findings from this study showed that institutional commitment was a driving factor for student attrition. Other key factors that influenced attrition included institutional fit and grades.

Summary of Retention Studies

When it comes down to studies regarding retention models, Bean (1985) elegantly states that "It is always tempting to believe that one has invented the wheel when most studies may be more akin to polishing spokes." In other words, the current retention model research (i.e., the findings from Bean, 1985) are only enhancing the already established and foundational stance on retention (i.e., Tinto, 1975). With each piece of literature, there has been a stronger understanding of the social needs of students to retain (Bean, 1979, April; Bean, 1985; Pascarella & Terenzini, 1979; Pascarella & Terenzini, 1980; Spady, 1970, Spady, 1971; Tinto, 1975). While contact with faculty may (Spady, 1971) or may not be superior to student contact (Bean,

1985) depending on the study, there has and continues to be support from the literature that social contact should be at the forefront of retention efforts (Bean, 1979, April; Beans, 1985; Pascarella & Terenzini, 1979; Pascarella & Terenzini, 1980; Spady, 1970, Spady, 1971; Tinto, 1975).

Students with Risk Factors

Past studies have shown that students with risk factors have experienced difficulties with retention (i.e., being a student of color) (Astin, 1997; Engle & Tinto, 2008; Horn, 1998; Horn et al., 1999; Hughes, 2018; Ishitani, 2006; Knight et al., 2018; Lee et al., 2015; Mamiseishvili & Koch, 2011; Murtaugh et al., 1999; Strayhorn, 2008). Common risk factors include ethnic and racial background (Astin, 1997; Murtaugh et al., 1999); being a first-generation student (Choy, 2001; Ishitani, 2006); having low-income (Strayhorn, 2008; Walpole, 2008); being lesbian, gay, bisexual, and transgender students (Hughes, 2018); and having a disability (Horn, et al. 1999; Lee et al., 2015; Mamiseishvili & Koch, 2011).

Students of Diverse Ethnic and Racial Backgrounds

The retention rate of students of color has been documented in the literature (Astin, 1997; Murtaugh et al., 1999), indicating that these students do not retain as well as White students. One study, Astin (1997), used a regression analysis technique to analyze students and found that White students were more likely to finish their degree than Black students, Native American students, and Latinx students.

The findings from another study, Murtaugh et al. (1999), also support Astin (1997), indicating that students of color generally do not retain as well as White students. In their investigation, students from the years 1991 and 1995 who were first-time freshmen were studied to determine the variables linked to student retention at Oregon State University and to use

survival analysis when applied to a retention sample. The results of the study indicated that Asian students were less likely to drop out compared to White students; Black, Latinx, and Native American students were less likely to retain than White students. These results changed when student characteristics were included in the analysis, in which Black students were then considered to be more likely to retain than White students when personal student variables were included in the analysis.

First-Generation Students

Another group of students with a specific risk factor, first-generation students, are those who are the first in their families to attend an institution of higher learning post-high school (Choy, 2001; Ishitani, 2006). One study that provided insight into the retention rates of first-generation students is Choy (2001). In this study, Choy reviewed data regarding high school graduates who attended college and their pursuit of a degree. From the data of 1992 high school graduates who were pursuing higher education as first-generation students, 27% of students were first-generation students and, for the most part, were of low socioeconomic status and were either Latinx or Black (Horn & Nunez, 2000). Of these 27% first-generation students, 59% of students had enrolled in post-secondary education with 26.9% of students enrolling in a four-year program (Horn & Nunez, 2000). Many first-generation students were found to be academically unprepared, lacked the support from their families to adequately prepare for higher education, and had families who had lower academic expectations compared to students whose parents attended college (Choy, 2001). In other words, students whose parents had attended college were more likely to have higher expectations in earning a degree, were more likely to take the appropriate courses to be accepted into a high education institute, were more likely to take the appropriate placement examinations, and were more likely to enroll in an institute of higher

learning. Of students whose parents had at least a bachelor's degree, 51.2% attended four-year institutions while 44.4% attended two-year institutes (Kojaku & Nunez, 1998). In contrast, 29.9% of students whose parents did not attend college went on to attend a four-year institution while 56.1% attended two-year institutions (Kojaku & Nunez, 1998). During the 1989-1990 school year, it was found that there was a higher percentage of first-generation students who left higher education as opposed to students whose parents had a bachelor's degree (Horn & Carroll, 1998). Many students had not returned once they left their four-year institutions, with only 64% of students who left returned prior to 1994 (Horn & Carroll, 1998).

In another study that yielded similar results, Ishitani (2006) investigated when dropping out and graduation occur (and the likelihood of these outcomes) among higher education students. To do this, Ishitani used event history modeling to analyze student dropout and a multiple logistic regression approach to analyze graduation rates. The results of the study indicated that first-generation students were 1.3 times more likely than those students whose parents had attended college to ultimately withdraw. Ishitani found that non-selectivity of admission, low education expectation, enrollment into a public institution, low family income, less rigorous high school coursework, and low high school class rank were associated with dropout. Ishitani also found that dropout was likely to occur during the second year for students. The students who were most likely to drop out were students from low-income families, females, and Latinx students.

Low-income Students

Although the definition of low-income students depends on the author, definitions of low-income students have been defined by household yearly earnings below the defined financial marker (Engle & Tinto, 2008). Recent studies have evaluated outcomes for these low-income

college students (Strayhorn, 2008; Walpole, 2008). One study, Strayhorn (2008), used data from the Beginning Postsecondary Students Longitudinal Study to determine (a) the percentage of Black students who began their education in 1996 and continued to pursue their education to graduation and (b) the variables linked to student retention in Black male students from low-income backgrounds. One finding was that, of the low-income Black males who began their education in 1996-1997, only 62% were retained (with 15% of these students still working on completing their degree) while 38% had dropped out. By using an exploratory hierarchical multiple regression analysis, Strayhorn found that, compared to Black low-income male students with low academic achievement in high school, Black low-income male students with high academic achievement were eight times more likely to retain. Low-income Black students whose plans were to earn a graduate degree were 5.13 times more likely to retain compared to students whose plans were to earn a lower-level college degree. A similar finding was that younger low-income Black males were less likely to persist compared to older low-income Black males. Further findings from this study include that, compared to low-income Black males who were not socially active, low-income Black males who did engage socially with others were more likely to remain in higher education.

By using data from the Cooperative Institutional Research Program involving students who began their college careers in 1985, Walpole (2008) also studied Black students to evaluate how their economic status affects the other areas of their collegiate life. Through the utilization of descriptive analysis, the results of this study indicated that low socio-economic status Black students had worked more while attending school but had also studied less, earned lower grades, spent less time with faculty, and participated less often in clubs and organizations. Yet when the results of the regression analysis were considered, it showed that those students who had strong

grade point averages were likely to attend graduate schools regardless of their socio-economic status. In other words, those students who were successful in the classroom could continue to be successful regardless of their low-income background.

Low-Income and First-Generation Students

According to the report from Engle and Tinto (2008) from which data sets from the U.S. Department of Education were analyzed, roughly a quarter of the higher education population are low-income and first-generation students. These students were defined as having a family income below $25,000 and having parents who lacked a bachelor's degree. Engle and Tinto reported that only 34% of low-income and first-generation students completed their bachelor's degrees while their peers nearly had double the number of students who earned degrees.

Of the 43% of low-income and first-generation students who left before earning a degree, three out of five of these students had done so during their first year. The authors reported that 79% of low-income and first-generation students earned a bachelor's degree as their highest degree while 18% of these students had earned a master's degree as their highest degree. Compared to low-income and first-generation students, non-low-income and first-generation students earned fewer bachelor's degrees (64%) but earned more master's degrees (27%) for their highest degree. In fact, 64% of non-low-income and first-generation students who enrolled in a graduate program had earned a graduate degree while only 50% of low-income and first-generation students enrolled in a graduate program earned a graduate degree.

The typical background characteristics of these low-income and first-generation students include being female, being from an ethically or racially diverse background, being able to speak another language other than English, being financially independent from their parents, having a diploma equivalent to that of a high school diploma, having children, being older, having a

disability, and being a native from a country other than the United States. These students typically work full-time while attending school, live off-campus, prolong attending higher education after finishing high school, and attend an institution close to home.

When these students were last enrolled, they were more likely to be majoring in business, computer science or engineering, a social science, or vocational studies. The highest percentage of students to remain in their major were business students (86%), computer science/engineering students (78%), and those in a social science (77%). Although social science majors were the third highest in this aspect, low-income and first-generation students had earned the highest percentage of bachelor's degrees in social sciences (55%) in six years, with the second highest being in mathematics and the sciences (54%) and the third highest being in vocational, technical, and professional disciplines (53%).

Sexual Minorities

As it pertains to retention, the data that the scientific community has regarding sexual minority students (i.e., those who identify as lesbian, gay, bisexual, etc.) are mostly based on personal accounts and not quantitative data due to many institutions of higher education failing to collect data from these students (Legg et al., 2020). Because institutions of higher education are failing to collect data on the retention of sexual minority students, it has been difficult to define these diverse students due to the evolving language of these individuals (Legg et al., 2020).

One study that provides insight into the retention of sexual minority students is Hughes (2018). Hughes studied students across 78 institutions through a national longitudinal study by the Higher Education Research Institute to determine whether there was an impact on college retention by their fourth year in their respective institution if they identified as a sexual minority

in a science, technology, engineering, or mathematics (STEM) major. The results of the study found that 63.8% of sexual minority students had retained compared to the 71.1% of heterosexual students. Compared to heterosexual students in STEM, sexual minority students were 9.54% less likely to be retained. Sexual minority females were more likely to remain in STEM than compared to heterosexual females. Unlike female students, heterosexual males were more likely to be retained in STEM than sexual minority males. One variable that was found to promote retention among sexual minority students was research. Hughes found that 49.4% of sexual minorities participated in research which was 8.3% higher compared to heterosexual students.

Students with Disabilities

Students with disabilities have been shown to have a difficult time pursuing post-secondary education (Horn, et al. 1999; Mamiseishvili & Koch, 2011). One example of this is shown in Horn et al. (1999). Horn et al. (1999) evaluated the National Longitudinal Study of 1988 and found that students with disabilities were unlikely to immediately pursue a post-secondary degree upon completing high school. Many students with disabilities who did pursue higher education attended two-year institutions rather than four-year institutions due to failing to meet the requirements for those four-year institutions. These high school students were found to have lower GPAs, lower performance on the SAT, and were more likely to take remedial courses. For these students, it was not uncommon for them to complete their high school careers by earning their GED or an alternative high school credential.

One past longitudinal study, Wessel et al. (2009), was conducted to determine if there were differences in retention for students with and without disabilities at a Midwest university. The findings from this study revealed the retention and graduate rates between students with and

without disabilities were relatively similar. Although Wessel et al. (2009) had findings suggesting that retention and graduation rates were similar regardless of having a disability, other studies have found different findings when they evaluated students based on if they continued to pursue higher education regardless of the institution (i.e., Knight et al., 2018; Lee et al., 2015; Mamiseishvili and Koch, 2011).

Mamiseishvili and Koch (2011) studied the 2003-2004 Beginning Postsecondary Students Longitudinal Study survey data set (which consisted of students who were later followed up within 2006) and, in accordance with findings from Horn et al. (1999), found that many students were enrolled in two-year (or less) programs (65.4%) and were full-time students (63.4%) with just 34.6% of students being enrolled in four-year colleges and 35.1% of students being enrolled part-time or had varied enrollment. This sample showed a breakdown of students who were from low-income families and those who were first-generation students, in which 38.4% of students were from low-income families and 63.4% of students were first-generation students. Among the students identified with disabilities, 24.6% of students did not continue their education beyond their second year of college. This finding is like the one found in Ishitani (2006), in which students who were of first-generation status were unlikely to continue their education past their second year. Further analysis through logistic regression showed that the likelihood of a student staying in higher education was less likely for each year the student aged. Students were found to stay in higher education throughout their second year if they were female or Black, if they had strong first-year grade point averages, if they were full-time students living on-campus, and if they planned to earn a higher degree. This finding is similar to Strayhorn (2008) in which low-income Black students who planned to earn a higher degree were found to retain better than those low-income Black students who planned to earn a lower-level degree.

There was also a small percentage of students (14.7%) who had participated in a study session with their peers over the past year or had outside contact with their instructors. Given that peer and faculty contact are important for student success (Pascarella & Terenzini, 1979; Pascarella & Terenzini, 1980; & Spady, 1971), the finding that there was a small percentage of students in Mamiseishvili and Koch (2011) who had study sessions with peers or contact with faculty outside of class is of concern.

Lee et al. (2015), like Mamiseishvili and Koch (2011), also found that students' plans to earn a higher degree and their grade point averages were influential in retaining. This study involved investigating the Educational Longitudinal Study data from 2002 to determine risk-resilience factors pertaining to students with learning and behavioral/emotional disabilities. Key findings include how, compared to their non-disabled peers, students with learning disabilities were 71% and students with behavioral/emotional disabilities were 70% less likely to enroll and continue pursuing their degrees. Additionally, socioeconomic status and family dynamic also played a role, in which low socioeconomic status students (compared to high socioeconomic status students) were less likely to continue pursuing their degrees at their post-secondary institutions while students who had parents who discussed post-secondary education plans were more likely to enroll into an institute of higher learning and persist. However, discussing plans to attend a post-secondary institution was not the only influence from parents to stay in higher education. Compared to students who lived with one parent, students who lived with both parents were more likely to continue pursuing their education.

From what we know in Horn et al. (1999) with their work in analyzing the 1990 Beginning Postsecondary Students Longitudinal Study data, the researchers found that by 1994, only 16% of students with disabilities earned a bachelor's degree while 27% of their peers

without disabilities earned degrees; only 6% of students with disabilities earned an associate degree while 12% of their peers without disabilities earned associate degrees. These findings show a discrepancy between the graduation rates of students with and without disabilities.

While past research has shown that there may be discrepancies between graduation rates (Horn et al., 1999), we do know that if students with disabilities stay in higher education, it may likely take them longer to complete their degree (Knight et al, 2018). As found in Knight et al. (2018), students with disabilities took longer than their peers without disabilities to earn a degree and had a lower percentage of graduation rates compared to their peers without disabilities (except for students with disabilities who took six years to earn a degree). Specifically, students with disabilities had a graduation rate of 29.7% after four years and a graduation rate of 50.3% after five years. These rates were 5.5% and 2.6% lower than students without disabilities. Despite previous differences, students with disabilities had a higher percentage of graduates than students without disabilities (by 3%) during their sixth year pursuing a degree.

Societal Barriers

When consuming literature regarding retention and students with risk factors, it is critical to keep in mind that it is not the characteristics of these students (i.e., being Black) that causes them difficulty to stay in higher education, but the views that society places on students who have different characteristics that cause barriers for the student (Collins and Bilge, 2020). The societal barriers that cause students with risk factors issues in higher education are racism (Clayton, 2019; Griffith et al., 2017; Reynolds et al., 2010; Swim et al., 2003; Wu, 2021), cisgenderism and heterosexism (Brown et al., 2004; Woodford et al., 2018), classism (Allan et al., 2016; Allan et al., 2020; Allan et al., 2023; Langhout et al., 2009), and ableism (Barnard-Brak et al., 2010; Druckman et al., 2021; Kamperman, 2020; Lund & Ross, 2021).

Racism

Racism, the prejudice against others based on race (Clayton, 2019; Wu, 2021), has been documented to affect students in higher education (Griffith et al., 2017; Reynolds et al., 2010; Swim et al., 2003). One study that viewed racism against students is Swim et al. (2003). In this study, the researchers had Black students complete measures to gauge emotions and self-esteem, in addition to having them complete diary entries for two straight weeks to document any acts of prejudice against them and follow-up measures to learn more about the events after the initially reported prejudice acts documented in the diary entries. By examining the students' diary entries, the authors found reports of students experiencing an act that was perceived to be prejudiced every other week, with 55% of participants reporting between one to two incidents and 10% reporting between three to seven incidents. After randomly selecting one prejudiced act from each student's diary, the researchers found that the most reported prejudiced acts were staring (i.e., being stared at suspiciously or in a hostile manner), verbal expressions (i.e., racial slurs, insensitive comments based on culture or interpersonally characteristics, and racial stereotypes and generalizations), bad service (i.e., others favoring White patrons at a restaurant opposed to Black patrons), and miscellaneous interpersonal offenses (i.e., rude, nervous, and/or awkward encounters). Most of the students in this study felt anger toward their perpetrators, and thus 42% of students directly and 21% indirectly confronted their perpetrators. In this study, almost all the perpetrators were White, with many of the prejudiced acts occurring in private or public/organizational settings.

Racist acts towards students, like in Swim et al. (2003), were also documented by Griffith et al. (2017). In their study, the researchers administered semi-structured interviews to 12 Black higher education students to determine their experiences with stress related to race and coping

behaviors. These researchers found, after coding the students' responses, that the students' stress involved significant awareness of the negative stereotypes toward Black individuals, unintentional racial insults, and intentional discrimination. Negative stereotypes toward Black individuals, as reported by the students, included being seen as unintelligent or lazy. To fight these stereotypes, one student reported asking fewer clarifying questions in class to prevent being seen as an unintelligent person to other non-Black students while other reports included avoiding being quiet when participating with others and avoiding wearing clothes that made them look unkept to prevent them from appearing "lazy." Unintentional racial insults were considered implied or stated offensive remarks that did not appear to be done with malice. These insults included ignoring their responses in class and excluding them from both study groups and group projects. In contrast with unintentional racial insults, intentional discrimination was considered blatant attacks toward Black students. These attacks included being turned away from Greek Life parties, being called the "N-word" by students in-person, being called racial slurs on social media, and being ignored by a White faculty member. After experiencing acts against them, students have reported engaging in various behaviors, such as trying to process the event (i.e., replaying the situation, writing about the situation, etc.), seeking support from others, refuting untrue stereotypes (i.e., working hard in class to prove that they are not unintelligent nor lazy), and educating their peers regarding race-related issues.

Racism, as documented in the literature (Griffith et al., 2017; Swim et al., 2003), is evident, but the different levels of racism toward various groups are also a concern (Reynolds et al., 2010). In one study, Reynolds et al. (2010) evaluated the effects of racism on varying races by administering measurements to gauge motivation, self-efficacy, and race-related stress in Black and Latinx students. After analyzing the responses from the 151 participating students, the

researchers found that, while both types of students experienced amotivation due to institutional racism, Latinx students, compared to Black students, had a stronger locus of control. In other words, Black students who experienced institutional racism, compared to Latinx students, were less likely to feel like they can have control of their lives rather than external factors influencing them. Not only did Latinx students have more locus of control than Black students, but these students had higher extrinsic motivation. This means that Latinx students, compared to Black students, were more motivated by external outcomes. Regardless of race, both types of students were found to have their extrinsic and intrinsic motivations affected by institutional race-related stress.

Cisgenderism and Heterosexism

The perspectives and barriers for sexual minority students vary (Brown et al., 2004; Dugan & Yurman, 2011; Woodford et al., 2018). Some students, such as the lesbian, gay, and bisexual students in Dugan and Yuman (2011), reported that they felt their campus had an inclusive and open climate. After surveys were completed at 52 institutions of higher education, researchers found through analysis of variance and chi-square data analyses that students felt their campuses were inclusive and open but had reported low levels of participation in learning communities, study abroad, community service, and internships. In these activities, no students reported holding leadership positions. The findings indicating a low level of participation in various campus activities with no students holding leadership positions may suggest that their responses may have been different had they reported higher levels of participation or held leadership roles. In other words, their perceptions may have been different if they were more exposed to opportunities to experience prejudice.

Other perspectives and reported barriers contrast with Dugan and Yurman (2011), such as Woodford et al. (2018). In their study, Woodford and et al. studied data from an online survey that gauged the effects of discrimination from sexual minority students (i.e., lesbian, gay, bisexual, transgender (or related students, such as gender non-conforming, two-spirit, and genderqueer)) students and found, through bivariate correlations and multivariable regression models, that many of these sexual minority students who had high depressive symptoms also had high reports of microaggressions and victimizations. In addition to the relationship between depressive symptoms, microaggressions, and victimizations, it was found that, in transgender and related students, the more pride they had the more victimization they faced. When suicide attempts were analyzed, cisgender lesbian, gay, bisexual, and queer students had increased odds of attempting suicide due to interpersonal microaggressions. Transgender and related students also had increased odds of attempting suicide but for victimization rather than interpersonal microaggressions as seen in cisgender lesbian, gay, bisexual, and queer students. Roughly 5% of cisgender lesbian, gay, bisexual, and queer students and 10% of transgender (and others such as gender non-conforming, two-spirit, genderqueer) students had attempted suicide within that year.

Brown et al. (2004), like Woodford et al. (2018), indicate the hardships of students affected by cisgenderism and heterosexism by showing how sexual minorities perceived their campus as being against sexual minority students. After surveys were sent to resident assistants, a random sample of student affairs staff, and a stratified random sample of general students and faculty members, the data (upon the completion of factorial analyses of variance) showed notable findings of support. One finding from this study was how female student affairs staff had reported more anti-gay, lesbian, bisexual, and transgender graffiti than males. This type of finding not only provides insight on female staff being perceptive of anti-gay, lesbian, bisexual,

and transgender attacks through graffiti but also aligns with another finding regarding student affairs' support compared to faculty. Faculty had confronted students who made negative comments towards gay, lesbian, bisexual, and transgender students less often than student affairs staff. Not only did faculty report confronting students less than student affairs staff, but faculty who taught "hard sciences" had fewer positive attitudes and interests about gay, lesbian, bisexual, and transgender issues, topics, and workshops than those who taught "soft sciences." Student affairs staff and resident assistants, as opposed to faculty and general students, were found to be more supportive by having more interest in learning about gay, lesbian, bisexual, and transgender issues, culture, and history. Not only were resident assistants found to be more supportive, but they were also found, compared to general students, to have more reported changes in their attitudes against and have learned more about this population of students. General students, in addition to being less supportive compared to resident assistants, also differed by male and female students. General male students were found to be less supportive and knowledgeable about gay, lesbian, bisexual, and transgender students than female students. Among students by academic status, seniors, compared to freshman students, reported having more involvement and more change in beliefs regarding students who are gay, lesbian, bisexual, and transgender. Like the differences between seniors and freshmen, juniors had reported higher levels of perceived anti-gay, lesbian, bisexual, and transgender views compared to freshman students.

Classism

Classism, which is prejudice against others due to social class (Langhout et al., 2009), has been documented in the literature to affect students in higher education (Allan et al., 2016, Allan et al., 2020, Allan et al., 2023). Not only do we know that classism affects students in higher

education, but we also are aware of the distinct types of classism (e.g., institutional classism) which may affect students (Allan et al., 2016). One study that showed the effects of various types of classism was Allan et al. (2016). After creating a structural model from collected survey data, the results showed that social class and generational student status predicted classism experiences, which then predicted grade performance and student satisfaction. Institutional and interpersonal classism was found to be predicted by social class and generational student status. This means that students who had fewer financial resources and were first-generational students were more likely to experience social exclusion due to a lack of financial resources (i.e., institutional classism) and exclusion and depreciation due to their social class (i.e., interpersonal classism). Citational classism, partially, was predicted by social class. This form of classism, which was associated with social class, involves people from lower social classes being stereotyped. Not only was citational classism associated with social class, but citational classism also predicted poorer life satisfaction. Citational classism was not the only form of classism to predict lower levels of satisfaction. Institutional classism, like citational classism, predicted lower levels of life satisfaction but also academic satisfaction.

Work volition (or the ability of students to make work-related decisions) has been a recently explored factor affected by classism (Allan et al., 2023). Concerns regarding work volition for students with financial difficulties range but may include students trying to determine if their financial situation allows them to change jobs if they wanted to or if their family situation is preventing them from pursuing certain employment opportunities (Duffy et al., 2012). In a recent study, work-related decisions showed to affect student academic satisfaction (Allan et al., 2020). After sending surveys to undergraduate students throughout the school year to determine the relationship between economic deprivation, work volition, and

academic satisfaction, the structural model in Allan et al. (2020) showed that those students with economic deprivation had lower work volition. Those students who experienced low work volition also experienced low levels of academic satisfaction.

In addition to students with financial difficulties having lower work volition (Allan et al., 2020), it was found that classism affects the work decisions students can make (Allan et al., 2023). In alignment with Allan et al. (2020), Allan et al. (2023) sent emails surveying students at five different periods of a school year to determine the impact of institutional classism, interpersonal classism, occupational choice, and student satisfaction over time. The researchers tested structural models for life and academic satisfaction outcomes and found that institutional classism predicted interpersonal classism and work volition. Work volition was found to predict both academic and life satisfaction. The importance of this study is that it shows how prejudice against those with fewer financial resources can alter the views of the occupational choices they can and cannot make, can alter how satisfied students are with their major and their academic careers, and how satisfied they are with their lives.

Ableism

It is common in higher education for students to self-disclose their disability to their institution (typically an accommodation office) and provide supporting documentation if they want to request academic accommodations (Barnard-Brak et al., 2010). Through the accommodation process, the literature indicates that ableism, the prejudice against others' physical and mental abilities (as discussed in Linton, 1998), is likely a factor when making accommodation decisions (Druckman et al., 2021). Ableism is evident in Druckman et al. (2021) in which some students with disabilities were considered more deserving of accommodations than other students with disabilities. In this study, Druckman et al. (2021) sent emails of various

vignette combinations of hypothetical students with disabilities to two- and four-year post-secondary employees who worked in disability services and asked the participants if the student deserved accommodations, if the student was warm and sincere, if the student would use their accommodation, and if the student would be granted accommodations. The vignettes were randomly sent to the participants in which the student vignette that the employee received was of a student who was either Black or White, had attention-deficit/hyperactivity disorder (ADHD) or a visual impairment, and had either not mentioned their work ethic or had self-promoted their work ethic. Statistical analyses showed that the employees believed that students with vision impairments were more deserving, were more warm and sincere, were more likely to use the accommodations granted, and were more likely to be granted accommodations than compared to students with ADHD. Although further analyses showed that there was no evidence of racial bias influencing the employees' responses, there was evidence suggesting that the participants perceive the students with ADHD as having less of a work ethic compared to those students with visual impairments. The results of this study suggest to the scientific and higher education communities that students with non-physical disabilities may not be viewed the same as those students with physical disabilities.

If a student is granted accommodations, it is not uncommon for that student to have to provide a letter of accommodation from that institution's accommodations office to their instructors notifying them of the granted accommodations (Barnard-Brak et al., 2010). When Barnard-Brak et al. (2010) interviewed five higher education students in their qualitative study, the students reported positive interactions with faculty members regarding receiving accommodations for their disabilities. One of the participants who had test anxiety associated with her learning disability reported a time in which a finance professor verbally tested her to

reduce her anxiety. Although this and other students had helpful experiences with professors, not every interaction was desirable. Reports from students indicated that professors would not adhere to the granted accommodations. As a result, students would have to make compromises with their professors regarding the accommodations that they would be willing to provide. These students reported that they would rather make compromises than file a complaint regarding the professor who had refused to provide the legally mandated accommodations for fear that they may be negatively viewed. One student reported fear that he would be perceived as a "troublemaker" and could possibly be "black-balled" in his program of study if he reported non-compliance. Because of their experiences with professors, students reported that they, whenever they could, chose not to disclose their disability openly to other faculty members or higher education employees, and, when needed, downplayed the extent of their disability. There was an account in which a student who had a non-physical disability reported that she would not disclose her specific disability (which was bipolar disorder) due to stigma regarding mental health. Instead, she would disclose that she has a learning disability instead of telling the professor her actual diagnosis of bipolar disorder.

Difficulties with pursuing and being provided accommodations are not the only common barriers that students with disabilities face (Lund & Ross, 2021). For many students with disabilities in higher education, victimization has been a continued barrier in their lives (Lund & Ross, 2021). In an exploratory study of college students with disabilities that studied victimization, Lund and Ross (2021) found that almost all of the students reported victimization as children (with verbal victimization and social exclusion being the most common) and roughly half of the students continued to experience victimization. Male students reported lower levels of current victimization compared to females, while non-heterosexual students reported more

victimization than their heterosexual peers during childhood. These findings suggest that, while non-heterosexual students may have fewer issues with victimization in higher education, females may have an increased risk compared to males.

Through difficulties with accommodations and victimization, some students have reported that they had become strong self-advocates (Kamperman, 2020). In a qualitative study evaluating how ableism impacts students' views on self-advocacy, Kamperman (2020) interviewed five college male students with intellectual/developmental disabilities from a transition program. By analyzing the interviews, the researcher found the following themes: mastery, in/visibility, and autonomy. Students reported that they had continued to pursue mastery of an aspect of their lives, such as becoming stronger self-advocates against others who engage in victimizing acts against students with disabilities. While many students reported that they have developed skills to be their own advocates, there were reports from students indicating that they had chosen not to disclose their disabilities to their non-disabled peers and professors due to undesirable past experiences. Autonomy, the last theme identified by Kamperman (2020), was indicative in these student interviews. Students reported the importance of being able to engage in everyday behaviors like their non-disabled peers (i.e., feeding themselves, making the bus on time, etc.). This theme, at face value, appears to be one that may liberate college students with disabilities. However, ableism poses a threat to students in higher education with disabilities because students with disabilities have been shown to struggle with everyday tasks (i.e., speaking) to blend in with non-disabled peers. An example of this is when one student with a speech impediment chose not to use a device to aid his communication when speaking to the study's principal investigator who was not disabled.

The Intersection of Societal Barriers

Societal Barriers such as racism (Clayton, 2019; Griffith et al., 2017; Reynolds et al., 2010; Swim et al., 2003; Wu, 2021), cisgenderism and heterosexism (Brown et al., 2004; Rankin, 2008), classism (Allan et al., 2016, Allan et al., 2020, Allan et al., 2023), and ableism (Barnard-Brak et al., 2010; Druckman et al., 2021; Kamperman, 2020; Lund & Ross, 2021), have affected students. However, it would be folly to believe that students are exclusively affected by one societal barrier or one societal barrier at a given time (Collins & Bilge, 2020; Kamperman, 2021; Miller, 2018; Pichardo et al., 2021). Historically, students have experienced multiple societal barriers impacting their lives, such as heterosexism and ableism (Miller, 2018) and racism and ableism (Kamperman, 2021; Pichardo et al., 2021).

The effects of heterosexism and ableism have been demonstrated in Miller's (2018) qualitative study involving 25 undergraduate and graduate students with ranging of disabilities, genders, and sexualities. These students were interviewed to gain an understanding of their identities. In this study, the researcher asked identity-related questions during the interviews, such as "How do you describe your identity yourself?" and "What places on campus do you consider inclusive and welcoming?" After administering semi-structured interviews and coding the transcripts, Miller found that students described their identities as being intersected; these students felt that their identities were a part of who they were and could not be disconnected. In addition to feeling that their identities were connected, the students also described their identities as being interactive. There was a report about how a gay student with ADHD was a more creative person through his attention to detail as a gay man and having an active mind due to having ADHD. Although the intersection of being gay and having ADHD helped this student, there was another report of how a gay student with bipolar disorder had difficulty with the

interactions between these two identities. This student reported feeling the need to keep his mental disorder “closeted” like his sexuality. Despite sexual minority students reporting varying experiences, many reported solidarity because many sexual minority members experienced anxiety and depression in part to systemic oppression. Despite the tribulations faced by sexual minority students due to systemic oppression, students reported that the experiences with their sexuality allowed them to have a stronger understanding of how to handle situations regarding their disabilities. While some students reported feeling that their identities intersected, others had not. Some felt that their identities pulled them in two different directions, resulting in the belief that it may be best to keep them separate to avoid stigmatization. An account that illustrates identities pulling a person in two different directions came from a student who was gay and had Asperger’s. This student reported difficulties due to being an extroverted man because he was gay while also having strong introverted tendencies because of his disability.

Besides the intersection of heterosexism and ableism (Mill, 2018), the intersection of racism and ableism has also been documented in the literature (Kamperman et al., 2020; Pichardo et al., 2021). One study that studied this intersection is Pichardo et al. (2021). These individuals studied the effects of racial discrimination on the development of depression and sleep difficulties in Latinx college students by implementing discrimination, vigilance, sleep, and depression measures. Beyond racial and disability identities, many of these Latinx students were female (59.28%), with a quarter of students (25.77%) having a household income below $25,000, and almost three-fourths of students were U.S. born (72.68%). Through a multiple mediator path model, the researchers analyzed the relationships between discrimination, vigilance, sleep difficulties, and depressive symptoms. The researchers found that higher levels of ethnic/racial discrimination were related to vigilance towards racism, vigilance towards racism

was found to be associated with poor sleep quality, and poor sleep quality was related to depression. Even when controlling for sleep quality, discrimination was still found to lead to depression symptoms.

A second study that shows the effects of racism and ableism, which was previously discussed, is Kamperman (2020). In the qualitative study investigating college students with disabilities, Kamperman (2020) received a report from a Black student with hyperactivity who described an altercation with campus security. This student reported how campus security had accused his hyperactivity as being disruptive to others on that campus and wanted to check who he was by asking for his campus ID card. The student's report indicated that he felt that he was targeted because of his race. This experience shows how difficult it can be for a student to navigate racism and ableism with at least two intersecting identities. Fortunately, retention programs (Dale, 1995; Hodum & Martin, 1994; Schelbe et al., 2019) and living learning communities (Caviglia-Harris, 2022; Stassen, 2003) address retention and attrition problems for students.

Retention Programs

Programs have been shown to promote retention for students (Dale, 1995; Hodum & Martin, 1994; Schelbe et al., 2019). One study that demonstrated the benefits of a retention program was Hodum and Martin (1994). In their study, introductory freshman seminar courses at Tennessee Technological University were studied to determine if taking an introductory freshman seminar course at this university promoted student retention compared to students who did not participate. The results of the study showed that 93.1% of students who took this introductory freshman seminar during the 1987-1988 academic year retained for the next term,

while 93.1% and 91.2% of students who took this course in the 1988-1989 and 1989-1990 academic years retained for the next term as well.

Retention Programs for Students with Risk Factors

Retention programs for students with risk factors have been shown to be helpful in promoting retention (Dale, 1995; Schelbe et al., 2019). One retention study that shows the positive impact retention programs have on students with risk factors is Dale (1995). In Dale (1995), a TRIO program at Purdue University was studied by implementing a matched-pairs research design among students who were a part of the TRIO program and those students who could have joined the program but chose not to. Students who had a physical disability, who were first-generation students, or who were from a low-income family were eligible to participate. This program consisted of having TRIO students attend a freshman course in which they would have their cognitive needs met in the classroom by learning about various topics (i.e., campus resources, time management skills, etc.). Outside of the classroom, students met in a community building or personal growth lab to strengthen affective growth (i.e., working on interpersonal skills). In addition to the in-class and out-of-class activities, students met one-on-one with the instructor during the semester for support and were provided with a plethora of resources (i.e., access to computers, academic and personal counseling, etc.). The results from the study showed that students in this specific program were in a better academic position compared to those whom the TRIO students were matched with. In truth, 85% of students in the TRIO program had already graduated or were still pursuing a degree compared to the 47% of matched students. Almost all students from this TRIO group (96%) reported how having individuals there to help them was beneficial for their academic journey. Students also offered strong praise for the study skills training and the tutoring opportunities.

In a similar study, Schelbe et al. (2019) studied 25 students who participated in a first-generation retention program to determine perceived program benefits and views on the program's retention efforts. The retention program involved an eight-week orientation in the summer that was designed to offer the students awareness of higher education expectations. During this eight-week orientation, students lived in university housing where they created connections with their peers. Throughout the school year, students had to obtain a set amount of study hours and attend general assemblies where they engaged in higher education programming and connected with peers and retention staff. The researcher's qualitative study involved faculty members and graduate students co-facilitating focus groups and interviewing undergraduate students. With the exception of three students (in which two disclosed they were White and one disclosed they were "Other"), most of the students were Black (n = 14) or Latinx (n = 8). The results of the study indicated that students felt that their program enabled them to be successful due to having individual support, having knowledge and access to resources on campus, being academically prepared through attending required study hours with tutors, and living in a structured environment.

Residential Universities and Retention

Past research has shown that four-year residential institutions had benefited students due to the influence of social integration (Chapman & Pascarella, 1983). For instance, in their continued work examining the application of Tinto's (1975) model, Chapman and Pascarella's (1983) aim was to determine if Tinto's (1975) model was dependent on the specific types of higher education (such as four-year residential institutions, four-year commuter institutions, and two-year commuter institutions). In their study, Chapman and Pascarella sent questionnaires to 11 four-year and two-year institutions during the academic years of 1978-1979 and 1979-1980.

The first questionnaire, the Student Involvement Questionnaire (which gauged student activity involvement and student commitment to persist in completing their degree), was sent and completed (along with student background data) by freshmen who were full-time students attending four-year and two-year institutions. Upon the utilization of discriminant analysis and path analysis, the researchers found that various components from Tinto's (1975) model may not influence student withdrawal in the same way depending on the institutional type. The results of the study indicated that the residential students' college experience overshadowed the influence of the students' personal characteristics, but commuter students' college experience did not overshadow the influence of the students' characteristics. In other words, residential students' experiences were so influential to the point that it did not matter what background students came from. Regarding experiences, academic integration on four-year residential university students did not have as strong of an effect as social integration.

Other researchers who found retention program success were Noble et al. (2007). These researchers studied the impact of a program used to help promote grade point averages and graduation rates in first-year students at the University of South Alabama. In this program, students lived in one of two residence halls and attended a freshman seminar. The results from this study indicated that students who participated in this program had an increase in their academic success. Students who participated in this program were more likely to graduate between four and five years, were more integrated into the university, and had higher grade point averages. Although students who participated had higher grade point averages, Asian and White students had higher grade point averages compared to other ethnic/racial students. The extent to which grade point averages differed between students was noticeable, in which students

participating in the retention program, compared to students who lived on campus but were not a part of the program, had 0.15 higher grade point averages.

Living Learning Communities

Given that residential universities have shown that social integration has benefited students (Chapman & Pascarella, 1983) and given that students have been successful in retaining at universities due to the utilization of various components of living learning communities (Noble et al., 2007), an evaluation living learning communities as they pertain to retention efforts was needed. Living learning communities commonly involve undergraduate students who share a common learning experience and engage in co-curricular events (Inkelas & Soldner, 2011) and are sorted based on a theme (Dunn & Dean, 2013). The common outcomes that living learning communities established for students (according to Inkelas et al., 2018) were to have a smooth transition into higher education, a sense of belonging to their institute of higher education, an openness to the diversity of others, a willingness to learn about others' diverse backgrounds, and a successful social transition with others in higher education. Recent trends in living learning communities have shown that approximately half have been led by staff members while the other half have been staffed by faculty (Inkelas et al., 2018).

Hierarchy of Needs and Ecological Systems Theory

The foundational theories behind living learning communities include a modified Maslow's (1943) hierarchy of needs from Inkelas et al. (2007) and Bronfenbrenner's (1993) ecological systems theory. Based on Maslow's hierarchy of needs (Maslow, 1943), the National Study of Living-Learning Programs (Inkelas et al., 2007) modified a hierarchy of needs pertaining to living learning communities (Inkelas et al., 2018).

Hierarchy of Needs. The modified hierarchy of needs (Inkelas et al., 2007) has distinct levels supporting students. At the bottom of the hierarchy is the infrastructure level. At this level, living learning communities must have already established goals and objectives which guide the living learning communities and relates back to their theme; a relationship with the academic departments associated with living learning communities as well as a relationship with residence life; and the resources available to effectively implement programs. The next level of the hierarchy is the academic environment. The academic environment includes students being socially and academically supported in their residence halls; being enrolled in the same sections of courses as a cohort; and being advised by faculty members. The next level of the hierarchy is the cocurricular environment. This level entails the implementation of out-of-class events to supplement learning in the living learning communities. At this level, it has been shown that study groups, K-12 outreach events, career workshops, visits to various organizations, and theme related activities have been co-curricular activities linked to positive outcomes. The last level in the hierarchy is intentional integration. Intentional integration is where a living learning community is strategically designed to implement programs that are congruent with the student's academic and social life. Programs should be planned accordingly. For example, if there is an examination in a challenging course approaching, implementing a study session for the living learning community would be ideal. Another example of intentional integration is a living learning community coordinator lecturing over a specific theme during an introductory freshman course before a related co-curricular event takes place. The last component in the hierarchy is assessment. Although it is not designated a level, it is the mortar between the levels and the various components from each level. Assessment, in this context, means to evaluate the programs implemented in the living learning community to determine if the courses and staff are

effectively providing satisfactory implementation of the programming; if the implemented programming is effective; if the programming is congruent with the goals outlined by the living learning community; and how well intentional integration is being implemented.

Ecological Systems Theory. Along with an integrated hierarchy of needs, living learning communities can fit within Bronfenbrenner's (1993) ecological systems theory (Jessup-Anger et al., 2019). As discussed in Jessup-Anger et al. (2019), Bronfenbrenner's (1993) ecological systems theory involves four systems pertaining to living learning communities: microsystems, mesosystems, exosystems, and macrosystems. The first system is the microsystem, in which the components of this system directly influence the individual. When the ecological systems theory is applied to living learning communities, the potential microsystem for a student may consist of residence hall floors, peers in the living learning community, service learning, and courses. The mesosystem entails at least two settings contacted by a student, in which the student may be in contact with both peers from their living learning community and the courses they are attending. Since the exosystem influences but does not contain the individual, components of the exosystem pertaining to living learning community students may be local issues in the community from which they are living (whether it be in their higher education community or the city they are currently living in). Jessup-Anger et al. (2019) discussed how students in a social-justice living learning community were impacted by their exosystem, which involved learning about the social justice issues such as poverty through a co-curricular event and discussions with their peers in the living learning community. The last system discussed in Jessup-Anger et al. (2019) was the macrosystem. This system involves student characteristics, such as race, ethnicity, socio-economic status, and sexual orientation.

Retention of Living Learning Community Students

Evidence has shown that living learning communities have promoted student retention in students who were involved in living learning communities compared to those who were not (Caviglia-Harris, 2022; Stassen, 2003). One study that showed the effects of living learning communities on retention is Stassen (2003). In Stassen, the principal researcher compared the impact that three different living learning communities had on student academic success, experiences, and retention compared to non-living learning community students. The three different types of living learning communities studied were an honors community, a residential and academic-focused community, and a major-specific community. By using data from a longitudinal student database and the responses from an end-of-the-year survey, Stassen found that students who participated in living communities had higher college grade point averages, had lower academic dismissals, and had lower voluntary withdrawals than students who had not participated. One finding from this sample was that students who participated in living learning communities were roughly 35% less likely to voluntarily leave the university.

In a more recent study evaluating freshman living learning community retention, Caviglia-Harris (2022) also found that students within living learning communities had retained better than those who did not participate. These students within this sample were more likely to retain in every semester that they were in higher education and were anywhere between 6% and 13% less likely to leave higher education. When student survival was analyzed, it was found that the hazard rate for freshman students in living learning communities was 87% lower compared to those freshmen who were in living learning communities. Although the strongest year that helped prevent withdrawal was during their freshman year, students in living learning

communities were still 70% less likely each additional year from withdrawing compared to students who were not in living learning communities.

Living Learning Communities Promoting Academic Performance

Recent studies have shown that living learning communities have promoted strong academic performances in students (Caviglia-Harris, 2022; Halper et al., 2020). One example of how living learning communities promote academic strong performance is in Halper et al. (2020). In their longitudinal study, Halper et al. surveyed the academic and personal growth of students in a recreational sports living learning community four times across two years. While students had not indicated any growth in their self-reported wellness nor had they indicated any knowledge of campus resources, they did report that they had better grade point averages and self-reported leadership skills. To make sure that grade point averages were increasing due to participation in living learning communities and that they were not naturally increasing, the researchers matched living learning community students with non-living learning community students. The researchers found that students in this living learning community had higher grade point averages compared to those who had not participated.

Resembling the results from Halper et al. (2020), one study that was previously discussed, Caviglia-Harris (2022), evaluated the academic effects of living learning communities, and found that living learning communities also promoted higher grade point averages. In their investigation, Caviglia-Harris studied the effect that freshman student participation in living learning communities had on retention and grade point averages through the implementation of propensity score matching and survival analysis. Caviglia-Harris found that living learning communities had helped promote higher college grade point averages

initially in students' higher education careers and had helped promote higher cumulative grade point averages.

Living Learning Communities and Transitioning into Higher Education

Not only have living learning communities been shown to promote retention (Caviglia-Harris, 2022) and academic performance (Caviglia-Harris, 2022; Halper et al., 2020), but past empirical studies have demonstrated how living learning communities have positively promoted student well-being (Hall & O'Neal, 2016; Inkelas et al., 2007; Jessup-Anger et al., 2019; Spanierman et al., 2013; Stassen, 2003; Tinto et al., 1994). One study that shows the benefits of learning communities is Tinto et al. (1994). In this study, Tinto et al. (1994), used survey questionnaires to determine how learning communities impact students (i.e., perceived academic experiences, social behaviors, etc.). After administering questionnaires at two points during the school year, the researchers found that students continued to pursue higher education to the next school year (as opposed to students who were not a part of living learning communities) (which aligns with Caviglia-Harris, 2022). What is notable about this finding is how social integration was a key factor in promoting retention for students in living learning communities. The researchers found that students who participated in learning communities were appreciative that they found a group of peers who were like them because those students eased the transition into higher education. Finding a group of peers was noted to be of importance because meeting people was reported to be challenging for first-year students. Students indicated that, because of these relations, they were more aware of each other's differences. They also indicated that having relations with others who were in the same major was helpful because they knew that there was a likelihood that those students would be in the same upper-level courses later in their academic careers. Living learning community students in this sample reported how they were

more likely to attend class because they were in a community; how they felt accountability from others within their community to attend class; and how they felt attending large course sections of a class with a community member was more manageable for them. These students who had strong relations with others reported that they perceived their campus as more desirable, that their peers and faculty as helpful resources, more personal growth, and greater involvement in activities (both social and academic).

Tinto et al. (1994) is not the only study that has shown student communities easing the transition into higher education. Inkelas et al. (2007) describes a study that surveyed a sample of first-generation living learning community students and first-generation non-living learning community students to determine the transition in higher education. The results of the study indicated that, compared to non-living-learning community students, students in the living learning community sample were more likely to have perceptions of an easier transition into higher education. The factors that were found to contribute most to their academic transition for first-generation students in living learning communities were their background characteristics, their co-curricular and social environments in higher education, and their perceptions of their residence hall and campus. It was also found that the perceived ease in academic transition into higher education for first-generation living learning students was due to involvement in co-curricular resources, faculty interaction pertaining to a course, and their confidence in completing post-secondary coursework. One finding that was incongruent with past research regarding the benefits to students from faculty (Pascarella & Terenzini, 1979; Pascarella & Terenzini, 1980; & Spady, 1971) was how students who interacted with faculty mentors did not report a smooth social transition. However, the researchers did find that students who reported experiencing a smooth social transition were those students who had families of high socio-

economic status and those students who reported that their residence halls were academically and socially supportive.

Effects of Various Types of Living Learning Communities

Although it is known that living learning communities have been found to be beneficial to students (Caviglia-Harris, 2022; Hall & O'Neal, 2016; Inkelas et al., 2007; Jessup-Anger et al., 2019; Tinto et al., 1994), the effects of various living learning communities vary (Spanierman et al., 2013). In Spanierman et al. (2013), the researchers sent questionnaires to students who were and were not participating in living learning communities to determine if belonging and a sense of community were related to students in the living learning community. In addition to non-living learning community students, this study involved four living learning communities with themes pertaining to multicultural backgrounds, women in STEM, leadership, and globalization. The results from this study indicated that students who participated in the living learning community reported a stronger sense of community than those students who were not in a living learning community. Differences by community varied as well, in which women in STEM reported higher levels of sense of belonging compared to students in the multicultural living learning community and non-participating living learning community students. Sense of belonging was different between ethnically/racially diverse students, in which White students reported a higher sense of belonging than Black and Latinx students. A follow-up survey from the participants indicated that the activities that helped promote the most sense of belonging were making friends with others who were different from them, studying with their hallmates, co-curricular programming, and overnight trips.

Summary of Living Learning Communities

Living learning communities have been shown to not only promote retention (Stassen, 2003; Tinto et al., 1994) but fully benefit students in many ways during their time in higher education to help ease their transition (Hall & O'Neal, 2016; Inkelas et al., 2007; Jessup-Anger et al., 2019; Spanierman et al., 2013; Stassen, 2003; Tinto et al., 1994). Some benefits of students participating in living learning communities include having higher college grades (Hall & O'Neal, 2016; Stassen, 2003), engaging in academic work with their peers (Spanierman et al., 2013; Stassen, 2003), and establishing a network of friends (Hall & O'Neal, 2016). However, more research is needed related to the retention and attrition issues in students with risk factors in living learning communities to determine what support is provided to help them be successful and how they perceive the importance of the added support. Given the importance of peer and social support (Pascarella & Terenzini, 1979; Spady 1971) and the established recommended practices for living learning communities (Inkelas et al., 2018), future research should attempt to shed light on students' needs who may have risk factors and experience societal barriers (i.e., racism, ableism, etc.). Since the literature supports system issues versus student characteristics as a variable in retention and attrition in higher education, studies should focus on the system versus the students. Fortunately, Organization Behavior Management (OBM) has developed systems to analyze organizations at a systems level (Diener et al., 2009; Wilder et al., 2009).

Organizational Behavior Management

OBM helps promote desirable behaviors in individuals and groups by using behavioral principles in various settings (Wilder et al., 2009). One specialty area within OBM is the behavior systems analysis (Wilder et al., 2009). A behavior systems analysis can be used to analyze an organization to determine its processes and if those processes are effectively using

their inputs to provide desirable outcomes (Rummler & Brache, 2012). The initial level that must be addressed in a behavior systems analysis is any key issue related to the processes at the organizational level (Rummler & Brache, 2012). At the organization level, a behavior systems analysis can be used to help an organization establish the needed functional goals, determine if the needed resources are available, measure the behaviors that the organization needs to express to be successful, and determine the flow between inputs and outputs.

At a minimum, a behavior systems analysis can help determine if components of an organization are being provided to an organization to be successful (Diener et al., 2009). The Behavior Systems Analysis Questionnaire (BSAQ), a questionnaire described in Diener et al. (2009), can be used as a guide in helping an organization determine if it has goals and objectives, various inputs and outputs, and feedback from consumers. By using this tool as a guide, an organization can determine areas that may need to be addressed prior to moving forward with the rest of the behavior systems analysis (Diener et al., 2009). Given the utility of the BSAQ (Diener et al., 2009), this measurement could be tailored to living learning communities at a specific institution to determine if their practices align with recommendations from Inkelas et al. (2018).

The reason for using a behavior systems analysis (Diener et al., 2009; Wilder et al., 2009) as opposed to using the previously described ecological systems theory (Bronfenbrenner, 1993) is that the behavior systems analysis (Diener et al., 2009; Wilder et al., 2009) focuses on minimizing gaps in program support rather than focusing on students' relationships and characteristics (Bronfenbrenner, 1993). While Bronfenbrenner (1993) can be used to demonstrate the relationships between students and their living learning communities (as discussed in Jessup-Anger et al., 2019), a behavior systems analysis (Diener et al., 2019) can be

used to determine if various types of support are provided so that students can make such connections described in Bronfenbrenner (1993).

Purpose of the Study

The purpose of the current study is to use a behavior systems analysis instrument as a guide (Diener et al., 2009) to determine if living learning communities at a local institution are providing programming that aligns with Inkelas et al. (2018). By tailoring the recommendations described in Inkelas et al. (2018) to Diener et al. (2009), living learning communities will be gauged to determine if they have goals and objectives, social support (outputs), and programming (inputs). In addition to determining goals and objectives, social support (outputs), and programming (inputs), this study will also determine if programming expectations (i.e., consumer feedback) were met by students. The importance of this study is that it will give higher education professionals and researchers an idea of the provided programming that students with and without risk factors are being provided.

CHAPTER THREE: METHODOLOGY

The current chapter provides a description of the methods used to collect and analyze the data in this study. A quantitative survey research design (based on the recommendations from Czaja & Blair, 1994; & Fowler, 2014) was used to explore the perceived social support, provided programming, and met expectations by living learning communities (as they align with Inkelas et al., 2018) to students with and without risk factors. Data were analyzed by living learning community, gender, first-generation status, socioeconomic status, sexuality, disability, and ethnicity.

Population

The study's population consisted of first-semester undergraduate students who were involved in living learning communities at the University of Arkansas. The population of living learning community students (as provided by University Housing) consisted of 126 undergraduates. These students were from the following living learning communities: Agriculture, Food & Life Sciences Living Learning Community (n = 6); Air Force ROTC Living Learning Community (n = 5); Architecture and Design Living Learning Community (n = 25); Art Living Learning Community (n = 13); Business Living Learning Community (n = 61); and Music Living Learning Community (n = 16).

Procedure

Upon receiving a list of emails of current living learning community students from the Associate Director for Resident Education at the University of Arkansas, student recruitment was initiated using a process outlined by Fowler (2014). Students were sent an initial introductory email regarding the study. This introductory email consisted of the principal investigator providing prospective participants with information about the study, requesting their consent to

participate in the survey research, and notifying them that the survey link would be sent in the following email. Providing an introduction email, like the one previously described, is a common custom in survey research (Czaja & Blair, 1994).

Four emails were sent after the introductory email requesting participation. Two emails were sent at the end of the Fall 2022 semester while two emails were sent at the beginning of the Spring 2023 semester. Due to an influx of business student responses from the first three emails, the fourth email was sent to non-business students to help evenly distribute the completed responses.

All five emails provided the purpose of the study; an indication that participation was voluntary and refusing to participate would not cause adverse relations between that student or the university; a statement expressing that responses and collected data would remain anonymous; and contact information of individuals whom students could contact if they had concerns regarding the study. Students were provided an opportunity to indicate if they consented to participating in the survey prior to having the opportunity to respond to items. Each of the four emails sent after the introductory email had a survey link, which directed them to Qualtrics (2020) (the online survey tool from which the survey was housed).

Measure

The survey used in this study was based on the BSAQ (Diener et al., 2009) to explore students' experiences within living learning communities. By using a behavior systems analysis tool, the current survey was able to measure reported social integration, provided support, and the level of students' expectations. The survey consisted of 36 items. The first item was designed to determine if the student consented to participate in the study while the second item was designed to determine the living learning community to which the student belonged. If a student

responded with “no” to consenting to the study or had responded with “I am not a member of a living learning community,” then the student was sent to the end of the survey and thanked for participating.

The next five items were designed to determine if students were socially integrating. The items gauged if the students had made friends and if they had informal interactions with their living learning community resident assistant, living learning community coordinator, and faculty or staff (aside from their living learning community coordinator) because of their involvement in their living learning community. These items were asked on an agreeableness Likert scale (Fowler, 2014) which consisted of the following response options: 1. Strongly disagree; 2. Somewhat disagree; 3. Neither disagree nor agree; 4. Somewhat agree; 5. Strongly agree. These response options were based on the agreeableness response options outlined in Fowler (2014).

The subsequent 15 items were designed to determine if various programming and support were provided to students. These items were asked on an agreeableness Likert scale (Fowler, 2014) which consisted of the following response options: 1. Strongly disagree; 2. Somewhat disagree; 3. Neither disagree nor agree; 4. Somewhat agree; 5. Strongly agree. These response options, like the five previous items, were based on the agreeableness response options outlined in Fowler (2014).

The following seven items were created to determine if the provided programming and support had met the students’ expectations. These items were asked on a Likert scale (Czaja & Blair, 1994) which consisted of the following response options: 1. Significantly less than expected; 2. Less than expected; 3. Met expectations; 4. More than expected; and 5. Significantly more than expected. These response options were based on quantifier examples as shown in Czaja and Blair (1994).

These 27 items were considered ordinal (Fowler, 2014) and were primarily based on the recommended practices by Inkelas et al. (2018), but had some adaptations based from the National Survey for Student Engagement (NSSE, 2021) items for High Impact Practices (HIP) and social integration items from Chapman and Pascarella (1983). The remaining items on the survey pertained to demographic information, in which the students reported the identities they aligned with (i.e., sexual minority status, disability, etc.). These items were considered nominal (Fowler, 2014).

Content Validity and Pilot Study

Content validity refers to how well a measurement is representative of the subject that it aims to gauge (Haynes et al., 1995; Spoto et al., 2023). In other words, content validity refers to how well a tool, such as a survey, represents the topic(s) that it plans to study. To help with determining content validity, expert panels (consisting of content experts who have worked in the field and lay persons familiar with the material of interest) have been used to review instruments (Czaja & Blair, 1994; Davis, 1992; Spoto et al., 2023). By being on an expert panel, content experts and lay persons can provide helpful recommendations to strengthen the measurement (Davis, 1992).

Prior to administering the survey, content validity was determined by having a modified expert panel review items from this survey to assure that each item was relevant in capturing the scope of the study. This panel consisted of the Associate Director for Residence Education, the 2021-2022 Business Living Learning Community coordinator, the current Architecture Living Learning Community coordinator, the former Director of Assessment for Student Affairs, and one former Business Living Learning Community student from the University of Arkansas. The panel was emailed proposed survey items and was asked to review these items prior to meeting

over an online video conference. During the meeting, the committee reviewed each item to determine if it was clear and made recommendations as they saw fit.

Upon approving the survey from the expert panel, the survey was piloted (as recommended by Fowler, 2014). After receiving a list of 30 past living learning community students from the Associate Director for Residence Education, students were sent two emails requesting their participation in piloting this survey. Although there were only four respondents for the pilot survey, the participants' patterns of responses were consistent and anticipated based on the items answered. These patterns in responding indicated that future students could respond in a similar manner and therefore the distribution of surveys to current students proceeded.

Data Analysis

Each Likert-scale response was evaluated to determine individual percentages for each perceived social support, programming, and expectation item. Means and standard deviations were also determined for each of these items. Given that this study involved ordinal data, nonparametric analyses (Siegal, 1957) were used.

Two nonparametric statistical analysis approaches were considered for this exploratory study: the Kruskal-Wallis test (Kruskal & Wallis, 1952; Siegal, 1957) and the Mann-Whitney U test (Mann & Whitney, 1947; Nachar, 2008; Siegal, 1957). Kruskal-Wallis analyses were initially used to evaluate items with three groups, in which group sizes in some cases were as small as 5 participants. Because of the profoundly small group sizes and insignificant results from initial group comparisons, the Mann-Whitney U test (Mann & Whitney, 1947; Nachar, 2008; Siegal, 1957) was the adopted statistical test used for analyses. This study focused on using Mann-Whitney U tests (Mann & Whitney, 1947; Nachar, 2008) to compare differences in dichotomous groups for perceived social support, programming, and expectation items. The

Mann-Whitney U test (Mann & Whitney, 1947; Nachar, 2008) is a non-parametric test used to determine differences between two groups with ordinal data when groups may not be evenly distributed, may not adhere to normality, or may not have equal sizes. Data analysis was done by using an electronic statistical analysis tool, XLSTAT (Lumivero, 2023).

Artificial Dichotomous Groupings

Mann-Whitney U tests were used to compare dichotomous groups. Yet, when clear dichotomous groups were not possible, artificial groupings were created so that statistical analyses could be implemented. One occurrence of using artificial groupings was when there were 48 responses from the Business Living Learning Community but only 23 responses from the remaining five living learning communities. Because of this, the 23 responses from the remaining five communities were combined and compared to the 48 responses from the Business Living Learning Community students. Artificial dichotomous groupings were done by community type (i.e., Business vs. non-Business), sexuality (i.e., Sexual Majority vs. Sexual Minority), disability status (i.e., Disability vs. No Disability), ethnicity status (Ethnic Majority vs. Ethnic Minority), and an overall risk factor comparison (i.e., Risk Factor and No Risk Factor). Gender was not artificially adjusted; one student who provided an outlier response of "Other" was not considered for analyses.

Methodology Summary

This chapter describes the population used; the procedure and measure implemented to gauge students; the study's content validity and pilot study which was implemented; and the data analyses used on current participants. This chapter not only outlines the investigation's methodology, but also describes the decisions which were made based on the collected data. The next chapter provides the findings from the current investigation.

CHAPTER FOUR: FINDINGS

This chapter discusses the survey responses and group analyses outlined in Chapter Three. As previously discussed, there were a total of five emails sent to students in living learning communities at the University of Arkansas during the 2022-2023 school year. The first email was sent to 126 students describing the purpose of the study and inviting them to participate. The following three emails were sent to all 126 students with the Qualtrics (2020) link to participate in the study, in which two emails were sent at the end of the Fall 2022 semester and one email was sent in early the early Spring 2023 semester. Because of the strong influx of responses from the business-themed living learning community compared to the other communities, a fifth and final email was sent to non-business-themed students requesting them to participate.

Demographics

Of the 126 students who were invited to participate, 71 students submitted completed surveys for analysis. This resulted in a 56.34% response rate. Although there is not an agreed-upon response rate (Fowler, 2014), this survey falls within the 19% to 62% range of email solicitation and web completion response rates described in the review from Schonalu et al. (2002).

These 71 students were predominantly from the Business Living Learning Community, in which 67.61% of students were Business students (n = 48); The remaining students consisted of 9.86% Music students (n = 7); 8.45% Architecture and Design students (n = 6); 8.45% Art students (n = 6); 4.23% Agriculture, Food & Life Sciences students (n = 3); and 1.41% Air Force ROTC student (n = 1).

Students within living learning communities varied by ethnicity as well, in which 78.87% (n = 56) were an ethnic majority (i.e., White) and 21.13% (n = 15) were an ethnic minority (i.e., non-White) (see Table 1). Half of the living learning communities reported all White members while the remaining communities reported ethnicities other than White. The three ethnically diverse living learning communities within this sample were the Business Living Learning Community, the Art Living Learning Community, and the Music Living Learning Community.

The first notable living learning community with evidence of ethnic diversity is the Business Living Learning Community. These students consisted of the following characteristics: 79.17% White (n = 38); 8.33% Asian or Pacific Islander and White (n = 4); 4.17% were Latinx (n = 2); 2.08% were Asian or Pacific Islander, Latinx, and White (n = 1); 2.08% were Black and White (n = 1); 2.08% were Native American and White (n = 1); and 2.08% were Other (n = 1). A second community with an ethnically diverse group of students was the Art Living Learning Community. This community had 66.67% White students (n = 4); 16.67% Latinx (n = 1); and 16.67% Native American, White, and Other (n = 1). The third community with an ethnically diverse group of students was the Music Living Learning Community. This community had 57.14% White students (n = 4); 28.57% Native American and White students (n = 2); and 14.29% Asian or Pacific Islander and White students (n = 1).

Reported Disability Status

This sample consisted of 35.21% of students (n = 25) self-reporting that they had a disability. Most students who reported having a disability were White (80%, n = 20) while the remaining students were non-White (20%, n = 5). Of the students who reported having a disability, 56.00% (n = 14) were business students; 20.00% (n = 5) were art students; 12.00% (n = 3) were music students; 8.00% (n = 2) were architecture and design students; and 4.00% (n =

1) Agriculture, Food & Life Sciences students. The one student in the Air Force ROTC Living Learning Community did not report having a disability.

Compared to the self-reports of student disability, reports of received accommodations varied. Of the students who reported having a disability, 14.08% (n = 10) of students reported receiving accommodations while 35.21% (n = 25) of students reported not receiving accommodations. Students who reported receiving accommodations were mostly White (80.00%, n = 20) while those students who reported not receiving accommodations were mostly White (70.00%, n = 7) as well. Of the students who reported having accommodations, 60.00% (n = 6) were from the Business Living Learning Community, 30.00% (n = 3) were from the Art Living Learning Community, and 10.00% (n = 1) were from the Agriculture, Food & Life Sciences Living Learning Community. Yet of the students who had reported disabilities but were not receiving accommodations, there were 64.00% (n = 16) of students from the Business Living Learning Community; 16.00% (n = 4) of students from the Music Living Learning Community; 12.00% (n = 3) of students from the Architecture and Design Living Learning Community; and 8.00% (n = 2) of students from the Art Living Learning Community.

Reported Sexual Minority Status

Students who reported being a sexual minority consisted of 14.08% (n = 10) of the total sample. However, when students who reported "prefer not to answer" were considered sexual minorities for data analysis, the percentage of sexual minority students in this sample grew to 21.13% (n = 15). From the 10 students who reported their sexual minority status, 30.00% (n = 3) were from the Art Living Learning Community; 30.00% (n = 3) were from the Music Living Learning Community; 20.00% (n = 2) were from the Business Living Learning Community; and the remaining 20.00% (n = 2) were from the Agriculture, Food & Life Sciences Living Learning

Community and the Architecture Living Learning Community. Although there was a small number of students reporting that they preferred not to provide an answer regarding their sexual identity, 60.00% (n = 3) of Business Living Learning Community students and 40.00% (n = 2) of students from the Architecture and Design Living Learning Community and the Art Living Learning Community.

First-Generation and Low-Income Status

The sample consisted of 7.04% (n = 5) of students identifying as first-generation students with 92.96% (n = 66) of students having at least one family member who had previously attended college. Of these students, 80.00% (n = 4) were from the Business Living Learning Community while the remaining student was from the Architecture and Design Living Learning Community. Like first-generation students, 8.45% (n = 6) reported being low-income students. If those students who reported being unsure about their family's low income were considered in the total percentage of low-income students, then a total of 18.31% (n = 13) would be represented. Of the students who identified as being low-income, 66.67% (n = 4) were from the Business Living Learning Community while the remaining 33.33% (n = 2) were from the Music Living Learning Community.

Informal Interactions

Five questions pertained to the interpersonal experiences of living learning community students. The percentages for the quantifiers, the means, and the standard deviations for each of these items can be found in Table 2, Table 5, and Table 8. The first informal interaction item, "You have made friends with other students because of your involvement in your living learning community" (M = 4.37, SD = 0.97), had 90.14% (n = 64) of students reporting that they either "somewhat agree" or "strongly agree" with the statement (see Table 2); 95.84% (n = 46) of

Business students and 78.26% (n = 18) of non-Business students had responded with "somewhat agree" or "strongly agree" to this statement (see Table 5 and Table 8). The second informal interaction item, "You have had informal interactions with your living learning community resident assistant" (*M* = 3.58, *SD* = 1.26), resulted in 57.75% (n = 41) of students reporting that they either "somewhat agree" or "agree" with the statement (see Table 2); 60.41% (n = 29) of Business students and 52.17% (n = 12) of non-Business students had responded with "somewhat agree" or "strongly agree" to this statement (see Table 5 and Table 8). The third informal interaction item, "You have had informal interactions with your living learning community coordinator" (*M* = 3.93, *SD* = 1.14), resulted in 71.83% (n = 51) of students reporting that they either "somewhat agree" or "strongly agree" with the statement (see Table 2); 83.33% (n = 40) of Business students and 47.83% (n = 11) of non-Business students had responded with "somewhat agree" or "strongly agree" to this statement (see Table 5 and Table 8). The fourth informal interaction item, "You have had informal interactions with a faculty member (aside from your living learning community coordinator) because of your experience in your living learning community" (*M* = 3.24, *SD* = 1.31), resulted in 45.07% (n = 32) of students reporting that they either "somewhat agree" or "strongly agree" with the statement (see Table 2); 45.83% (n = 22) of Business students and 43.48% (n = 10) of non-Business students had responded with "somewhat agree" or "strongly agree" to this item (see Table 5 and Table 8). The fifth informal interaction item, "You have had informal interactions with an academic staff member (aside from your living learning community coordinator) because of your experience in your living learning community" (*M* = 3.15, *SD* = 1.28), resulted in 39.44% (n = 28) of students reporting that they either "somewhat agree" or "strongly agree" with the statement (see Table 2); 43.75%

(n = 21) of Business students and 30.44% (n = 7) of non-Business students had responded with "somewhat agree" or "strongly agree" with the statement (see Table 5 and Table 8).

Goals and Objectives

One item used to gauge if goals and objectives were being provided to living learning communities was, "Your living learning community has written goals and objectives" (*M* = 3.87, *SD* = 1.30). Like other items, percentages for each qualifier, as well as the item mean and standard deviation was provided (see Table 2). This item had 70.43% (n = 50) of students across the six studied living learning communities either report that they "somewhat agree" or "strongly agree" with the statement; 83.33% (n = 40) of Business and 43.48% (n = 10) of non-Business students either gave reports that they "somewhat agree" or "strongly agree" with the statement (see Table 5 and Table 8).

Programming and Support

The next 15 items on the survey were used to evaluate best practices for living learning communities (as described in Inkelas et al., 2018). The percentages for each qualifier, the means, and the standard deviations for these 15 items can be found in Table 2 and Table 3.

Extra-Curricular and Co-Curricular Activities

Across all living learning communities, students reported favorably to the item "Extra-curricular activities (e.g., hiking, sand volleyball, going to the movies, etc.) are provided by your living learning community" (*M* = 4.48, *SD* = 0.88) (see Table 2). Of the students across all living learning communities, 87.33% (n = 62) of students responded that they "somewhat agree" or "strongly agree" that extra-curricular activities were provided. Specifically, 91.67% (n = 44) of Business students and 78.26% (n = 18) of non-Business students responded with "somewhat

agree" or "strongly agree" with being provided extra-curricular activities (see Table 5 and Table 8).

Resembling the findings for extra-curricular activities, findings for co-curricular activities were highly rated by students. The item, "Co-curricular activities (e.g., a company visit within your field of study, a guest teacher to help with study preparation for an examination, etc.) are provided by your living learning community" (M = 4.52, SD = 0.88), resulted in 87.33% (n = 62) of students responding that they "somewhat agree" or "strongly agree" to the statement (see Table 2). Responses from Business and non-Business students were favorable, in which 91.66% (n = 44) of Business students and 78.26% (n = 18) of non-Business students responded with "somewhat agree" or "strongly agree" with being provided co-curricular activities (see Table 5 and Table 8).

Coordinator and University Housing Staff Support

When it came down to if students felt supported by their living learning community coordinator and University Housing staff members, 74.64% (n = 53) of students reported that they either "somewhat agree" or "strongly agree" to the statement, "You are being provided the support needed to be a successful student by your living learning community coordinator" (M = 4.13, SD = 1.28) while 73.24% (n = 52) reported that they either "somewhat agree" or "strongly agree" to the statement "You are being provided the support needed to be a successful student by University Housing staff members affiliated with your living learning community" (M = 4.04, SD = 1.18) (see Table 2).

The Business Living Learning Community gave a high number of reports indicating that their coordinator had provided them with the support needed to be successful students. These students had 89.59% (n = 43) reports of "somewhat agree" or "strongly agree" to the statement,

"You are being provided the support needed to be a successful student by your living learning community coordinator" (see Table 5). However, 43.48% (n = 10) of non-Business students reported that they "strongly agree" with the statement. None of the non-Business students reported that they "somewhat agree" to being provided the support needed to be a successful student by their living learning community coordinator (see Table 8).

Another finding was that there was a high percentage of Business students who reported that University Housing staff members had provided them with the support needed to be successful students. These students had 85.42% (n = 41) reports of "somewhat agree" or "strongly agree" to the statement indicating being provided support from University Housing staff (see Table 5). Non-Business students, however, gave 47.82% (n = 11) reports that they "somewhat agree" or "strongly agree" to being supported by University Housing staff (see Table 8).

Living and Learning Situations

Students answered favorably to questions regarding their living and learning situations. For instance, when students were provided the item, "You live alongside other students in a common residence hall from your living learning community" (M = 4.59, SD = 0.90), 91.55% (n = 65) of students responded that they either "somewhat agree" or "strongly agree" with the statement (see Table 3). Business and non-Business students had similar ratings, in which 91.67% (n = 44) of Business students gave reports of "somewhat agree" or "strongly agree" and 91.31% (n = 21) of non-Business students gave reports of "somewhat agree" or "strongly agree" with the previous statement (see Table 6 and Table 9).

When it came to the students' learning situations, many students provided favorable responses. From this sample, 95.77% (n = 68) of students reported that they "somewhat agree" or

"strongly agree" to the statement "You are taking a freshman course at the University of Arkansas (e.g., WCOB 1111, UNIV 1001, etc.) (*M* = 4.80, *SD* = 0.62) (see Table 3). Responses on this item were similar for Business and non-Business students, in which Business students gave 97.92% (n = 47) reports in which they "somewhat agree" or "strongly agree" and non-Business students gave 91.30% (n = 21) reports in which they "somewhat agree" or "strongly agree" to the previous statement (see Table 6 and Table 9).

Students reported a lower level of agreeableness to the statement, "You are taking a freshman course at the University of Arkansas (e.g., WCOB 1111, UNIV 1001, etc.) with other students in your living learning community" (*M* = 4.45, *SD* = 1.07), in which 87.32% (n = 62) of students reported that they "somewhat agree" or "strongly agree" (see Table 3). While Business students gave 93.75% (n = 45) reports that they "somewhat agree" or "strongly agree" with the statement, non-Business students had a lower level of agreeability. non-Business students gave 73.92% (n = 17) reports that they "somewhat agree" or "strongly agree" with the statement (see Table 6 and Table 9).

Students within this sample reported that they took courses together with other students in their living learning community besides a freshman course. Of the students from the total sample, 92.96% (n = 66) of students reported that they "somewhat agree" or "strongly agree" to the statement "You take other similar courses together with students in your living learning community aside from a freshman course (e.g., WCOB 1111, UNIV 1001, etc.)" (*M* = 4.62, *SD* = 0.85) (see Table 3). Business students gave 93.75% (n = 45) reports that they either "somewhat agree" or "strongly agree" with the previous statement, while non-Business students who reported that they "somewhat agree" and "strongly agree" gave slightly lower reports at 91.31% (n = 21) (see Table 6 and Table 9).

Last, 71.02% (n = 49) of students reported that they "somewhat agree" or "strongly agree" to the statement "You are taking a course associated with your living learning community in which you do not receive credit (e.g., UNIV 1200)" (*M* = 4.04, *SD* = 1.43) (see Table 3). Students from the Business Living Learning Community had 82.61% (n = 38) of students reported that they "somewhat agree" or "strongly agree" while 47.82% (n = 11) of non-Business students reported "somewhat agree" and "strongly agree" responses (see Table 6 and Table 9).

Positive Outcome-Linked Co-Curricular Activities

Five items were used to determine if the co-curricular activities described in Inkelas et al. (2018) were being implemented in the living learning communities at the University of Arkansas. The first item, "You are involved in study groups because of your living learning community" (*M* = 3.51, *SD* = 1.56), had 59.16% of students respond with either "somewhat agree" or "strongly agree to the item (see Table 3). The percentage of agreeableness varied between living learning community type, in which 66.67% (n = 32) of Business students and 43.48% (n = 10) of non-Business students reported that they either "somewhat agree" or "strongly agree" to the previous statement (see Table 6 and Table 9). The second item, "You are involved in K-12 outreach events because of your living learning community" (*M* = 2.20, *SD* = 1.21), had 9.86% (n = 7) of students respond that they either "somewhat agree" or "strongly agree" to the item (see Table 3). The percentage of agreeableness between living learning community type did not vary, in which 10.42% (n = 5) of Business students and 8.70% (n = 2) of non-Business students reported that they "strongly agree" with the item (see Table 6 and Table 9). There were no non-Business students who reported that they "somewhat agree." The third item, "You are involved in career workshops because of your living learning community" (*M* = 3.14, *SD* = 1.45), had 42.25% (n = 30) of students report that they "somewhat agree" and

"strongly agree" to the statement (see Table 3). Students by living learning community type had varying agreeableness compared to the total percentage of reported agreeableness, in which 52.08% (n = 25) of Business students and 39.13% (n = 5) of non-Business students reported that they either "somewhat agree" or "strongly agree" to the item (see Table 6 and Table 9). The fourth item, "You visit work settings because of your living learning community" (*M* = 3.87, *SD* = 1.43) had 70.43% (n = 50) of students report that they "somewhat agree" or "strongly agree" to the statement (see Table 3). Although 85.42% (n = 41) of Business students had given reports that they either "somewhat agree" or "strongly agree" to the previous statement, only 39.13% (n = 9) of non-Business students gave reports that they either "somewhat agree" or "strongly agree" to visiting workplace settings because of their involvement in their living learning communities (see Table 6 and Table 9). The fifth item, "You participate in theme related activities because of your living learning community" (*M* = 3.94, *SD* = 1.24), had 71.83% (n = 50) students report that they "somewhat agree" or "strongly agree" to the statement (see Table 3). Business students and non-Business students differed in their responses, in which 68.75% (n = 33) of Business students had reported that they either "somewhat agree" or "strongly agree" with the previous statement while 78.26% (n = 18) of non-Business students reported that they "somewhat agree" or "strongly agree" (see Table 6 and Table 9).

Group Differences

Mann-Whitney U tests were used to evaluate group differences in these 15 items. These items yielded significant findings across groups. Differences between groups are shown in the following paragraphs.

Business and non-Business Students

Because of the number of participating Business students compared to the remaining students in living learning communities, Business students (n = 48) were compared to non-Business students (n = 23) to determine any differences in responding. Mann-Whitney U tests were used to evaluate group differences in these items (see Table 11 and Table 12).

Informal Interactions. The first two findings involved informal interactions. The first finding was that there were higher responses from Business students (M = 4.58, SD = 0.74) compared to the remaining living learning community students (M = 3.91, SD = 1.24) for the item "You have made friends with other students because of your involvement in your living learning community" [$U = 730.500$, $p = 0.015$]. The second finding was that there were higher responses from Business students (M = 4.23, SD = 0.86) compared to the remaining living learning community students (M = 3.30, SD = 1.40) for the item "You have had informal interactions with your living learning community coordinator" [$U = 763.500$, $p = .005$].

Goals and Objectives. One item was used to gauge if goals and objectives were evident in living learning communities on campus. After analyzing the data for this item, there were higher responses from Business students ($M = 4.31$, $SD = 0.85$) compared to non-Business students ($M = 2.96$, $SD = 1.58$) for the item "Your living learning community has written goals and objectives" [$U = 827$, $p = .0003$].

Programming and Support. The next 10 items pertain to programming and support provided to living learning community students. From these 14 items, nine items indicated significant differences. These items discuss differences in extra-curricular and co-curricular activities, support provided by their coordinator and University Housing, living arrangement, courses taken, and involvement in positive-outcome-linked co-curricular activities.

The first finding was that there were higher responses from Business students (M = 4.67, SD = 0.63) compared to non-Business students (M = 4.09, SD = 1.16) for the item "Extra-curricular activities (e.g., hiking, sand volleyball, going to the movies, etc.) are provided by your living learning community" [U = 714, p = .013]. The second finding was that there were higher responses from Business students (M = 4.67, SD = 0.69) compared to non-Business students (M = 4.22, SD = 1.13) for the item "Co-curricular activities (e.g., a company visit within your field of study, a guest teacher to help with study preparation for an examination, etc.) are provided by your living learning community" [U = 675, p = .044]. The third finding was that there were higher responses from Business students (M = 4.52, SD = 0.83) compared to non-Business students (M = 3.30, SD = 1.64) for the item "You are being provided the support needed to be a successful student by your living learning community coordinator" [U = 765, p = .004]. The fourth finding was that there were higher responses from Business students (M = 4.31, SD = 0.97) compared to non-Business students (M = 3.48, SD = 1.38) for the item "You are being provided the support needed to be a successful student by University Housing staff members affiliated with your living learning community" [U = 743.500, p = .012]. The fifth finding was that there were higher responses from Business students (M = 4.44, SD = 1.17) compared to non-Business students (M = 3.26, SD = 1.60) for the item "You are taking a course associated with your living learning community in which you do not receive credit (e.g., UNIV 1200)" [U = 759.500, p = .001].

Positive-Outcome-Linked Co-Curricular Activities. The next five items pertain to the positive-outcome-linked co-curricular activities described in Inkelas et al. (2018). The first finding was that here were higher responses from Business students (M = 3.92, SD = 1.25) compared to non-Business students (M = 2.65, SD = 1.80) for the item "You are involved in

study groups because of your living learning community" [$U = 771.500$, $p = .005$]. The next finding was that there were higher responses from Business students ($M = 2.38$, $SD = 1.18$) compared to non-Business students ($M = 1.83$, $SD = 1.23$) for the item "You are involved in K-12 outreach events because of your living learning community" [$U = 714.500$, $p = .033$]. The third finding was that there were higher responses from Business students ($M = 3.54$, $SD = 1.20$) compared to non-Business students ($M = 2.30$, $SD = 1.58$) for the item "You are involved in career workshops because of your living learning community" [$U = 813.500$, $p = .001$]. The fourth finding was that there were higher responses from Business students ($M = 4.44$, $SD = 0.99$) compared to non-Business students ($M = 2.70$, $SD = 1.52$) for the item "You visit work settings because of your living learning community" [$U = 911.500$, $p = <.0001$].

Student Gender

Student genders were compared across the living learning communities (see Table 13 and 14). Except for the student who identified as Other (n = 1), students identifying as Male (n = 40) and students identifying as Female (n = 30) were compared to determine any differences in responding. From these 15 items, there were three items that indicated significant differences. The first finding was that there were higher responses from Male students ($M = 4.55$, $SD = 0.85$) compared to Female students ($M = 3.60$, $SD = 1.55$) for the item "You are being provided the support needed to be a successful student by your living learning community coordinator" [$U = 795$, $p = .009$]. The second finding was that there were higher responses from Male students ($M = 3.58$, $SD = 1.30$) compared to Female students ($M = 2.57$, $SD = 1.48$) for the item "You are involved in career workshops because of your living learning community" [$U = 834$, $p = .005$]. The third finding was that there were higher responses from Male students ($M = 4.15$, $SD = 1.31$)

compared to Female students (M = 3.50, SD = 1.55) for the item "You visit work settings because of your living learning community" [U = 755.500, p = .048].

Sexual Majority and Sexual Minority Students

Students' sexual identities were compared across living learning communities (see Table 15 and 16). Students identifying as heterosexual were placed in the Sexual Majority group and were compared to students who had not reported that they were heterosexual (i.e., reporting to be a sexual minority or preferring not to answer), and thus were placed in the Sexual Minority group. This resulted in comparing Sexual Majority students (n = 56) to Sexual Minority students (n = 15) to determine any differences in responses. There was one significant difference in responses from these 15 items. The finding was that there were higher responses from Sexual Majority students (M = 4.50, SD = 0.87) compared to Sexual Minority students (M = 4.40, 0.91) for the item "Extra-curricular activities (e.g., hiking, sand volleyball, going to the movies, etc.) are provided by your living learning community" [U = 451, p = <.0001].

Students with and without Disabilities

Student disability status was analyzed across living learning communities (see Table 17 and 18). Students identifying as having a disability were placed in the Disability (n = 25) group while students not identifying as having a disability were placed in the No Disability (n = 46) group and compared. There were two significant findings from these 15 items. The first finding was that there were higher responses from students in the No Disability group (M = 4.50, SD 0.89) compared to students in the Disability group (M = 4.44, SD = 0.87) for the item "Extra-curricular activities (e.g., hiking, sand volleyball, going to the movies, etc.) are provided by your living learning community" [U = 550, p = .031]. The second finding was that there were higher responses from students in the No Disability group (M = 4.74, SD = 0.80) compared to students

in the Disability group (M = 4.20, SD = 1.38) for the item "You are taking a freshman course at the University of Arkansas (e.g., WCOB 1111, UNIV 1001, etc.) with other students in your living learning community" [U = 460, p = 0.049].

Ethnicity

Student ethnicity was compared across all living learning communities (Table 19 and Table 20). Students identifying as being White were part of the Ethnic Majority group (n = 56) while students identifying as non-White were a part of the Ethnic Minority group (n = 15). Mann-Whitney U tests showed no statistically significant differences between these groups for any of the items.

Students with and without Risk Factors

Students with and without Risk Factors were compared (Table 21 and Table 22). Students identifying with risk factors included those who were first-generation students, low-income students, non-heterosexual identifying students, students identifying as having a disability, or students who identified with an ethnicity other than White (n = 39). Students identifying as not having risk factors were those who were non-first-generation students, non-low-income students, heterosexual identifying students, students not identifying as having a disability, and students identifying as White (n = 24). Mann-Whitney U tests showed no statistically significant differences between these groups for any of the items.

Expectation Items

The succeeding seven items pertain to the reported level of met expectations (see Table 4). Although similar items had gauged whether support was provided, these seven items were used to determine if the provided support met students' expectations. By using this approach, it

continues to follow the behavior systems analysis tool (Diener et al., 2009) by determining student feedback.

The first item, “The amount of interactions with your peers within the living learning community met your expectations” (*M* = 3.58, *SD* = 1.32), had 81.69% (n = 58) of students, at minimum, provide the response of “Met expectations.” More Business students had reported that their expectations were met compared to non-Business students, in which 91.67% (n = 44) of Business students responded with at least “Met expectations” while only 60.88% (n = 14) of non-Business students responded with at least “Met expectations.”

The second item, “The amount of informal communication with your living learning community coordinator met your expectations” (*M* = 3.56, *SD* = 1.22), had 83.1% (n = 59) of students, at minimum, provide the response of “Met expectations.” Business students were found to have a higher reported rating of their met expectations compared to non-Business students regarding the amount of informal communication with their coordinator. Specifically, 93.75% (n = 45) of Business students and 60.87% (n = 14) of non-Business students gave responses of at least “Met expectations” for the previous item.

The third item, “The amount of informal communication with your living learning community resident assistant met your expectations” (*M* = 3.08, *SD* = 1.23) had 70.42% (n = 50) of students, at minimum, provide the response of “Met expectations.” Business students had almost double the percentage of having responses of “Met expectations” or higher on this item. In fact, 81.25% (n = 39) of Business students had responded with “Met expectations” or higher on this item compared to the 47.83% (n = 11) of non-Business students who responded with “Met expectations” or higher.

The fourth item, “The amount of extra-curricular activities (e.g., hiking, sand volleyball, going to the movies, etc.) within your living learning community met your expectations” (*M* = 3.76, *SD* = 1.20), had 85.92% (n = 61) of students, at minimum, provide the response of “Met expectations” for the previous item. Business students and non-Business students differed, in which 91.67% (n = 44) of Business students responded with at least “Met expectations” for this item while only 73.91% (n = 17) of non-Business students responded with at least “Met expectations.”

The fifth item, “The amount of co-curricular activities (e.g., company visits within your field of study, a guest teacher to help with study preparation for an examination, etc.) with your living learning community met your expectations” (*M* = 3.68, *SD* = 1.24), had 80.28% (n = 57) of students, at minimum, provide the response of “Met expectations” for the previous item. Business students had roughly twice the percentage of positive reports indicating that their expectations were at least met compared to non-Business students, in which 91.67% (n = 44) of Business students responded with, at minimum, the “Met expectations” option compared to the 56.52% (n = 13) of non-Business students who had responded with at least the “Met expectations” option.

The sixth item, “The amount of support from your living learning community coordinator met your expectations” (*M* = 3.73, *SD* = 1.22), had 83.10% (n = 59) of students, at minimum, provide the response of “Met expectations” for the previous item. Similar to the responses of the previous item, Business students had almost twice the percentage rate compared to non-Business students. Business students had 95.83% (n = 46) students, compared to 56.52% (n = 13) of non-Business students, respond with at least the “Met expectations” option.

The seventh item, “The amount of support from your living learning community resident assistant met your expectations” (M = 3.35, SD = 1.23), had 78.88% (n = 56) of students, at minimum, provide the response of “Met expectations.” Between Business and non-Business students, 87.51% (n = 42) of Business students had reported at least “Met expectations” for this item compared to the 60.87% (n = 14) of non-Business students who reported at least “Met expectations.”

Group Differences

A Mann-Whitney test was used to evaluate the differences in responses on these seven items. From these seven items, there were twelve significant findings across the type of living learning community and gender. Specifically, there were seven significant findings for these items between Business and non-Business students as well as five significant findings between Male and Female students.

Business and non-Business Students. There were seven differences based on the type of living learning community (see Table 23). Like previous analyses, the living learning communities were divided into the largest number of reports from a single living learning community, the Business Living Learning Community (n = 48), and from the remaining living learning communities (n = 23). There was a difference in the responses from the item, “The amount of interactions with your peers within the living learning community met your expectations” [U = 741, p = .016] in which the ratings by Business students (M = 3.88, SD = 1.08) were significantly higher for those than non-Business students (M = 2.96, SD = 1.55). The second significant difference is from the item “The amount of informal communication with your living learning community coordinator met your expectations” [U = 771, p = .005], in which the ratings by Business students (M = 3.88, SD = 1.00) were significantly higher than

those for non-Business students (*M* = 2.91, *SD* = 1.38). The third finding was from the item, "The amount of informal communication with your living learning community resident assistant met your expectations" [*U* = 750, p = .012], which showed a significant difference, in which the ratings by Business students (*M* = 3.33, *SD* = 1.16) were significantly higher than those for non-Business students (*M* = 2.57, SD = 1.24). The fourth finding was from the item, "The amount of extra-curricular activities (e.g., hiking, sand volleyball, going to the movies, etc.) within your living learning community met your expectations" which showed a significant difference [*U* = 752.500, p = .005] between the ratings from Business students (*M* = 4.04, *SD* = 1.01) and non-Business students (*M* = 3.17, *SD* = 1.37). The fifth finding, which was from the item, "The amount of co-curricular activities (e.g., company visits within your field of study, a guest teacher to help with study preparation for an examination, etc.) with your living learning community met your expectations" showed a significant difference in responding [*U* = 820.500, p = .001] in which the ratings by Business students (*M* = 4.04, *SD* = 1.03) were significantly higher than those for non-Business students (*M* = 2.91, *SD* = 1.31). The sixth finding is from the item, "The amount of support from your living learning community coordinator met your expectations" [*U* = 770.500, p = .005], in which the ratings by Business students (*M* = 4.06, *SD* = 0.91) were significantly higher than those for non-Business students (*M* = 3.04, *SD* = 1.50). The last finding from these groups of students is from the item, "The amount of support from your living learning community resident assistant met your expectations" [*U* = 717, p = .035], in which the ratings by Business students (*M* = 3.56, *SD* = 1.11) were significantly higher than those for non-Business students (*M* = 2.91, *SD* = 1.38).

Male and Female Students. There were five differences based on gender (see Table 23). Like previous analyses, gender was compared based on students who identified as Male (n = 40)

and Female (n = 30). The first notable difference was from the item “The amount of interactions with your peers within the living learning community met your expectations” [$U = 797$, $p = 0.013$], in which there were higher reports from Male students ($M = 3.98$, $SD = 1.03$) compared to Female students ($M = 3.13$, $p = 1.47$). The second notable difference was from the item “The amount of informal communication with your living learning community coordinator met your expectations” [$U = 822.500$, $p = <.00001$], in which there were higher reports from Male students ($M = 3.95$, $SD = 0.99$) compared to Female students ($M = 3.10$, $SD = 1.32$). The third notable difference was from the item “The amount of informal communication with your living learning community resident assistant met your expectations” [$U = 828.500$, $p = .005$], in which there were higher reports from Male students ($M = 3.45$, $SD = 1.11$) compared to Female students ($M = 2.67$, $SD = 1.21$). The fourth notable difference was from the item “The amount of support from your living learning community coordinator met your expectations.” [$U = 884$, $p = <.0001$], in which there were higher reports from Male students ($M = 4.23$, $SD = 0.86$) compared to Female students ($M = 3.13$, $SD = 1.33$). The fifth notable difference was from the item “The amount of support from your living learning community resident assistant met your expectations” [$U = 828.500$, $p = .001$], in which there were higher reports from Male students ($M = 3.73$, $SD = 1.06$) compared to Female students ($M = 2.90$, $SD = 1.30$).

CHAPTER FIVE: DISCUSSION

As previously discussed, a behavior systems analysis tool in Diener et al. (2009) was used as a guide to create a survey from past survey items (as discussed in Chapman & Pascarella, 1983; NSSE, 2021) and recommended practices (Inkelas et al., 2018) to gauge social integration and recommended practices for students in living learning communities at the University of Arkansas. By using guiding questions from Diener et al. (2009), the following behavior systems components were explored: existing goals; evident inputs and outputs; and met expectations.

Research Question One

Outputs (Social Support)

The first research question was, "What are the student perceptions of social support and programming provided by living learning communities?" Aligning with this research question, various types of perceived social support were not only found to be evident in this sample but were also considered outputs (as outlined in Diener et al., 2009). This sample of students gave relatively high levels of responses indicating that living learning communities gave them opportunities to make friends. Past evidence has shown that students tend to make friends within living learning communities (Spanierman et al., 2013; Tinto et al., 1994) and that these relations with others also tend to lead towards having an easier transition into higher education (Tinto et al., 1994).

Relatively high reports also indicated that students experienced informal contact with their coordinators. For those coordinators who were also faculty members, the finding from the current study is noteworthy because of past research indicating how faculty contact positively benefits students (Pascarella & Terenzini, 1979; Spady, 1971). Despite the relatively supportive reports indicating that students experienced informal contact with coordinators from the overall

sample, there was a discrepancy between Business students and non-Business students in which Business students had roughly double the percentage of reports indicating informal coordinator contact as opposed to non-Business students.

There were relatively lower-than-expected reports from students in this sample for items indicating that they have had informal contact with their assigned living learning community resident assistants and faculty/staff aside from their coordinators. Students gave less than 58% of reports endorsing that they had informal contact with their assigned resident assistants. Students also gave less than 48% of reports indicating that they had informal contact with faculty aside from their coordinator and they also gave less than 40% of reports indicating that they had informal contact with a staff member aside from their coordinator. Responses were found to be relatively more favorable among Business than non-Business students.

Goals and Objectives

Goals and objectives were explored to determine if living learning communities had them to guide their programming. While most students within this sample reported that goals and objectives were evident in their living learning community, this data was skewed by responses from Business Living Learning Community students since most of these students reported favorably to their living learning community having goals and objectives. Roughly half of the remaining living learning community students who were non-Business students reported favorably to their communities having goals and objectives.

Inputs

The inputs in this study, given that many were recommended best practices outlined in Inkelas et al. (2018), were a critical component for this research. These inputs included the following: if students were being provided extra-curricular and co-curricular activities; if

students were being provided support by their coordinator and housing staff members; if students were living in a common residence hall; if students were taking similar courses together; and if students were engaging in study groups, K-12 outreach events, career workshops, visits to work settings, and theme-related activities.

Students in living learning communities, in general, reported that they were provided extra-curricular and co-curricular activities; lived in a common residence hall; took a freshman course; and took a freshman course with others within their living learning community. However, eported support from coordinators and University Housing staff members varied, as well as responses regarding taking a course associated with their living learning community for credit and responses regarding positive-outcome-linked programming.

Coordinator and University Housing Staff Support. Students from the overall sample gave favorable reports of receiving support from coordinators and University Housing staff members. There were differences in responding when communities were compared. It was found that Business students gave double the number of favorable reports for being supported by their coordinator and University Housing staff compared to non-Business students.

Course Associated with their Living Learning Community. Students, as an overall sample, reported that they were not taking a course associated with their community in which they received credit. This is a concern because it conflicts with the recommendation from Inkelas et al. (2018) for which students should be provided credit for classes they take as a part of their living learning community. When students were compared by their community, it showed that most Business students reported that they were not receiving credit for a course associated with their living learning community while less than half of non-Business students reported not receiving credit for taking a class associated with their living learning community.

Positive-Outcome-Linked Co-Curricular Activities. Students' perceptions of being provided positive-outcome-linked co-curricular activities (as described in Inkelas et al., 2018) were lower than expected. Less than 60% of students from the overall sample reported being involved in study groups, while less than 10% of students reported participating in K-12 outreach events and less than 43% of students reported participating in career workshops. The only two positive-outcome-linked co-curricular activities provided to communities that aligned with Inkelas et al. (2018) were visiting work settings and engaging in theme-related activities. Out of the positive-outcome-linked co-curricular activities discussed by Inkelas et al. (2018), students within the Business Living Learning Community reported the highest percentage of favorability for visiting work settings while non-Business students had higher responding for theme-related activities.

Research Question Two

The second research question was, "Do students' perceived levels of social support and programming in living learning communities meet their expectations?" Over half of the students within the living learning communities gave reports that their expectations were more than met on five items regarding the amount of interactions with their peers within their community, the amount of informal communication with their coordinator, the amount of extra-curricular and co-curricular activities, and the amount of support from their coordinator.

Although many students across the living learning communities gave reports suggesting that the programming exceeded expectations, the number of favorable reports dropped when business students were not considered in the analysis. The highest reports from Business students came from items gauging if students had met expectations for provided extra-curricular activities, provided co-curricular activities, and provided support from their living learning

community coordinator. When Mann-Whitney U tests were used to compare Business students and non-Business students, it was found that those Business students had their expectations exceeded regarding their social interactions, provided programming, and support compared to non-Business Students.

Research Question Three

The third research question was, "Do various groups of students have differing views of perceived social support, programming, and desired needs than others?" When students were compared based on risk factors, Mann-Whitney U tests showed differences between gender, sexuality, and disability.

Programming Differences by Gender

The first group comparison by risk factors involved comparing the first 20 items from the survey by gender. Male students, compared to Female students, gave higher levels of responses indicating that they were provided the support needed to be successful by their coordinators. Past research has shown how faculty have positively influenced males with various background risks (i.e., low levels of commitment to pursue higher education) (Parscarella & Terenzini, 1979). Although not all coordinators were faculty and although specific background characteristics of males (i.e., commitment) were not evaluated, there may have been reasons why male students responded higher than female students which were unknown.

In addition to the support provided by their coordinators, Male students also gave higher levels of reports indicating that they were provided career workshops and visits to work settings compared to Female students. These findings not only align with the positive-outcome-linked co-curricular activities outlined in Inkelas et al. (2018), but one of these findings for this type of

student, visiting workplaces, also aligns with the previous finding of how Business students gave a higher level of reports compared to non-Business Student for that same item.

Programming Differences by Sexuality and Disability

Differences, beyond gender, were also found between Sexual Majority group and the No Disability group. The Sexual Majority group of students and the No Disability group of students gave higher levels of reports indicating that they were provided extra-curricular activities compared to the Sexual Minority group of students and the Disability group of students.

Expectation Differences based on Gender

Seven items were used to gauge whether provided programming met their expectations. These items were feedback-oriented items, which aligns with the behavior systems analysis as discussed in Diener et al. (2009). Although race, sexuality, and disability were also compared, the only differences found were from the comparisons based on gender. Male students gave higher levels of reports indicating their met expectations compared to Female students on four items. Specifically, Male students were found to have higher expectations regarding the informal communication and support between their coordinators and resident assistants compared to Female students.

Past literature has given insight into how faculty have benefited male and female students who have had various needs (Pascarella & Terenzini, 1979; Spady, 1971). However, it is hard to determine why these students reported in this manner regarding their coordinators given those male and female characteristics (i.e., commitment) were not explored. While there may be a reason why students reported favoring expectations regarding their coordinators, there is no definitive reason why from this sample.

Living Learning Community Recommended Practices

The recommended practices for living learning communities involve support at the infrastructure level, the academic environment level, and the co-curricular environment level (Inkelas et al., 2018). Assessment at each level is also expected to ensure that appropriate programming is being provided (Inkelas et al., 2018).

Infrastructure Level

Based on the reports from students, goals and objectives (which are part of the infrastructure level) were evident in the Business Living Learning Community but were not consistent across all communities. This indicates that, at the infrastructure level, intervention is needed to help promote all living learning communities in having established goals and objectives.

Academic Environment Level

Homogenous to the infrastructure level, the academic environment in this sample partially aligned with the recommendations found in Inkelas et al. (2018). The students' responses were indicative that they had made friends, but their reports partially supported that they had informal contact with their resident assistant and partial contact faculty or staff aside from their living learning coordinators. Business students, however, had higher reports for these items compared the non-Business students. As it pertains to students' living and learning situations, students also lived together in a common residence hall, took a freshman course together, and took similar courses as a cohort. One finding that was incongruent with Inkelas et al. (2018) was how students within the Business Living Learning Community were taking a course associated with their community for which they had not received credit.

These discrepancies in programming warrant intervention to minimize implementation gaps. Strategic behavioral intervention is needed to promote social contact between students and coordinators, resident assistants, faculty, and staff to ensure that all students can be integrated and supported. Second, there is a need for the Business Living Learning Community students to have the opportunity to earn credit for taking a course associated with their community.

Co-Curricular Environment Level

The Co-curricular environment, like the infrastructure and academic environments, is also essential for student success (Inkelas et al., 2018). Students reported favorable responses for being provided co-curricular activities. However, there were less than favorable levels of responses indicating that positive-outcome-linked co-curricular activities were provided except for visiting work settings and engaging in theme-related activities; Business students gave favorable responses for visiting work settings compared to non-Business students, but non-Business students had given more favorable responses for theme-related activities. The lowest reported co-curricular event type, K-12 outreach events, was scantly reported by students within this sample.

Assessment

Last, conducting a behavior systems analysis (as discussed in Diener et al., 2009) aligns with the recommendations from Inkelas et al. (2018) to provide assessments of living learning communities. As emphasized by Inkelas et al. (2018), assessment is important because it allows for any discrepancies in implementation to be addressed. Because of the assessment in this investigation, there has been provided insight on potential gaps in program implementation.

Limitations

One limitation of this study was that the principal investigator was one of the living learning community coordinators. This was an issue given that some of the students participating in the living learning communities (i.e., the Business Living Learning Community students) may have been more apt to respond to the request to participate in the study due to their current and past work with the principal investigator. Because of the principal investigator's relationship with these students, the number of responses and the way that students rated their experiences may have been skewed.

A second limitation of this study is that the overall sample size was relatively small. Aside from the participants from the Business Living Learning Community, the number of participants from the remaining five communities was low. Because of these low numbers, students, at times, were clumped together to be compared to those students who had a high representation (i.e., when Business students were compared to non-Business students). This resulted in a potential generalization of the experiences reported by students each time they were clumped together.

A third limitation of this study was the use of Mann-Whitney U tests to analyze the data. Although the test followed many of its assumptions, one assumption that was not adhered to was group randomization as described in Nachar (2008). Due to the already limited number of participants in this study, groups were compared "as is." Additionally, students were not randomized due to the nature of the study, which was to use a survey based on a behavior systems analysis tool (Diener et al., 2018) to determine the landscape of current living learning communities on a college campus so that decisions could be made based on all available data. Because of this reasoning, groups were not manipulated, excluded to create randomization, or

adjusted to make the groups equal. While these findings may not have aligned as closely with a sample that was randomized, there is past evidence indicating how non-randomized samples result in similar findings to randomized samples (Shadish et al., 2008). Because findings from non-randomized samples have been shown to be like those findings from randomized samples (Shadish et al., 2008), the exploratory findings in this study should still be considered.

A fourth limitation was the failure to consistently use inclusive language as recommended by the American Psychological Association (2020). For example, the terminology "transsexual" was mistakenly used as part of the 31st item on the survey tool and had been overlooked by the university's institutional review board and the expert panel. Consequently, this error may have caused some responders to respond differently.

A fifth limitation was the assumption that all living learning communities adhered to the same provided programming and had the same structures. For instance, some communities may have required certain courses to be taken as a cohort while others may not have conformed to this strict practice. Since coordinators were not interviewed, we did not know how closely the provided programming and structures were across communities.

Recommendations

Recommendations for Prospective Students

Before joining a living learning community, prospective students should determine, at the bare minimum, if the community has goals and objectives, if there is an emphasis on social support, and if the community engages in co-curricular activities. These components of living learning communities align with past literature (i.e., Inkelas et al., 2018) and students should participate in those communities that follow recommended practices to give students the best opportunity for desirable outcomes associated with participation (Hall & O'Neal, 2016; Inkelas

et al., 2007; Jessup-Anger et al., 2019; Spanierman et al., 2013; Stassen, 2003; Tinto et al., 1994).

Recommendations for Managing a Living Learning Community

While many of the best practices (as described in Inkelas et al., 2018) were followed in this study, some were not. It is recommended that all higher education professionals who manage living learning communities adhere to the best practices described by Inkelas et al. (2018) because, by doing so, will help provide students with the best opportunity to successfully transition into higher education.

In alignment with following the recommended practices by Inkelas et al. (2018), it is also recommended that higher education professionals actively assess their living learning communities. Assessment is critical as it helps those managing communities know if their programming is suitable in promoting desirable outcomes (i.e., social integration) or if they should make appropriate changes.

Recommendations for Researchers

Although this study helped minimize the gap of knowledge regarding students with risk factors in living learning communities, there are still areas of research that should be pursued to help further minimize this knowledge gap. These areas of interest include using a behavior systems analysis to further explore aspects of living learning communities that the scope of this study had not and to conduct qualitative investigations regarding students with multiple risk factors within living learning communities.

Behavior Systems Analysis for Additional Factors. The current study should be considered a novel investigation as it used a survey based on items from a behavior systems analysis tool as a guide to determine the gaps in program implementation in living learning

communities on a college campus. Given the established scope for this specific study, only a handful of factors described by Diener et al. (2009) were evaluated (i.e., goals and objectives, inputs, etc.). Future studies should evaluate other factors that could affect students within living learning communities as discussed in Diener et al. (2009) (i.e., the environment and competition).

Conducting Qualitative Investigations. Qualitative investigations provide the opportunity to acquire a significant amount of information beyond the limited responses from survey research (DiCicco-Bloom & Crabtree, 2006; Fossey et al., 2002). For instance, a qualitative researcher could ask follow-up questions to gauge a deeper understanding of a phenomenon (DiCocco-Bloom & Crabtree, 2006; Fossey et al., 2002). Because of the value of qualitative investigations, there are at least two directions that future researchers could take given the findings from this exploratory study.

Like past intersectionality research (i.e., Kamperman, 2020), researchers could evaluate the perceptions of students within living learning communities who identify as having two or more risk factors to determine their experience within these communities. Because the current study's analyses dichotomously compared students with risk factors given the small sample sizes for individual groups (i.e., Ethnic Minority students), it would be of interest to study the personal accounts of students within these communities to determine if there are any common experiences of students who have intersecting factors.

In addition to an intersectionality emphasis, a second qualitative research opportunity would be to interview students within a specific living learning community to explore a deeper understanding of an area in which these students provided high ratings on the current survey. For instance, Business Living Learning Community students would be of interest to study given the

large number of students who volunteered to participate and the high ratings they provided on survey items. Particularly, these students' responses regarding their informal communication with their coordinator, the support from their coordinator, and the met expectations regarding the amount of informal communication and support from their coordinator would indicate an area that could be further explored.

Conclusion

The provided programming and expectations were relatively met as an overall sample, but the non-business-themed living learning communities had noticeably lower favorability responses for perceived social support, provided programming, and met expectations when compared to the Business Living Learning Community. Although not all the recommended practices outlined by Inkelas et al. (2018) in this study were met across communities, students within the Business Living Learning Community gave reports that they were not only provided with social support and provided programming, but that the social support and provided programming had met these students' expectations when compared to the remaining communities. Specifically, the favorability reports from students on social items (i.e., reports of making friends and having informal contact with their coordinator) indicate that social integration within this group of students may have occurred (see the following for insight regarding social integration: Spady, 1970; Spady, 1971; Tinto, 1975; Pascaella & Terenzini, 1979).

Not only does this study provide insight regarding actual implemented programming and support from current communities, but this study is one of the first known investigations to use a behavior systems analysis to determine gaps in provided programming. This study provides a precedent for future higher education professionals on how to provide an assessment of their

living learning communities that is based on the science of improving behavior (see Diener et al., 2009) that is based on recommended practices from Inkelas et al. (2018).

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TABLES

Table 1

Depiction of living learning communities and ethnic identities

Communities	*n*	%
Business Living Learning Community		
White	38	79.19
Asian or Pacific Islander and White	4	8.33
Latinx	2	4.17
Asian or Pacific Islander, Latinx, and White	1	2.08
Black and White	1	2.08
Native American and White	1	2.08
Other	1	2.08
Music Living Learning Community		
White	4	57.14
Native American	2	28.57
Asian or Pacific Islander and White	1	14.29
Architecture and Design Living Learning Community		
White	6	100.00
Art Living Learning Community		
White	4	66.67
Latinx	1	16.67
Native American	1	16.67
Agriculture, Food & Life Science Living Learning Community		
White	3	100.00
Air Force ROTC Living Learning Community		
White	1	100.00

Note: *n* = 71. The sample consisted of the following: Business Living Learning Community (n = 48); Music Living Learning Community (n = 7); Architecture and Design Living Learning Community (n = 6); Art Living Learning Community (n = 6); Agriculture, Food & Life Science Living Learning Community (n = 3); and the Air Force ROTC Living Learning Community (n = 1).

Table 2

Depiction of social support and programming responses by living learning community students (n = 71)

Items	Strongly Disagree	Somewhat Disagree	Neither agree nor disagree	Somewhat Agree	Strongly Agree	*M*	*SD*
You have made friends with other students because of your involvement in your living learning community.	2.82%	5.63%	1.41%	32.39%	57.75%	4.37	0.97
You have had informal interactions with your living learning community resident assistant.	9.86%	8.45%	23.94%	29.58%	28.17%	3.58	1.26
You have had informal interactions with your living learning community coordinator.	5.63%	5.63%	16.90%	33.80%	38.03%	3.93	1.14
You have had informal interactions with a faculty member (aside from your living learning community coordinator) because of your experience in your living learning community.	12.68%	16.90%	25.35%	23.94%	23.13%	3.24	1.31
You have had informal interactions with an academic staff member (aside from your living learning community coordinator) because of your experience in your living learning community.	11.27%	21.13%	28.17%	19.72%	19.72%	3.15	1.28
Your living learning community has written goals and objectives.	9.86%	5.63%	14.08%	28.17%	42.25%	3.87	1.30
Extra-curricular activities (e.g., hiking, sand volleyball, going to the movies, etc.) are provided by your living learning community.	1.41%	2.82%	8.45%	21.13%	66.20%	4.48	0.88
Co-curricular activities (e.g., a company visit within your field of study, a guest teacher to help with study preparation for an examination, etc.) are provided by your living learning community.	1.41%	2.82%	8.45%	16.90%	70.42%	4.52	0.88
You are being provided the support needed to be a successful student by your living learning community coordinator.	7.04%	7.04%	11.27%	15.49%	59.15%	4.13	1.28
You are being provided the support needed to be a successful student by University Housing staff members affiliated with your living learning community.	5.63%	5.63%	15.49%	25.35%	47.89%	4.04	1.18

Note. M = mean; *SD* = standard deviation.

Table 3

Depiction of programming responses by living learning community students (n = 71)

Items	Strongly Disagree	Somewhat Disagree	Neither agree nor disagree	Somewhat Agree	Strongly Agree	*M*	*SD*
You live alongside other students in a common residence hall from your living learning community.	2.82%	2.82%	2.82%	15.49%	76.06%	4.59	0.90
You are taking a freshman course at the University of Arkansas (e.g., WCOB 1111, UNIV 1001, etc.).	1.41%	0.00%	2.82%	8.45%	87.32%	4.80	0.62
You are taking a freshman course at the University of Arkansas (e.g., WCOB 1111, UNIV 1001, etc.) with other students in your living learning community.	5.63%	1.41%	5.63%	7.04%	80.28%	4.55	1.07
You take other similar courses together with students in your living learning community aside from a freshman course (e.g., WCOB 1111, UNIV 1001, etc.).	8.70%	0.00%	0.00%	26.09%	65.22%	4.62	0.85
You are taking a course associated with your living learning community in which you do not receive credit (e.g., UNIV 1200).	11.59%	5.80%	11.59%	8.70%	62.32%	4.04	1.43
You are involved in study groups because of your living learning community.	19.72%	8.45%	12.68%	19.72%	39.44%	3.51	1.56
You are involved in K-12 outreach events because of your living learning community.	40.85%	15.49%	33.80%	2.82%	7.04%	2.20	1.21
You are involved in career workshops because of your living learning community.	18.31%	16.90%	22.54%	16.90%	25.35%	3.14	1.45
You visit work settings because of your living learning community.	34.78%	13.04%	13.04%	26.09%	13.04%	3.87	1.43
You participate in theme related activities because of your living learning community.	8.45%	4.23%	15.49%	28.17%	43.66%	3.94	1.24

Note. M = mean; *SD* = standard deviation.

Table 4

Depiction of expectation responses from living learning community students (n = 71)

Items	Significantly less than expected	Less than expected	Met expectations	More than expected	Significantly more than expected	*M*	*SD*
The amount of interactions with your peers within the living learning community met your expectations.	11.27%	7.04%	26.76%	22.54%	32.39%	3.58	1.32
The amount of informal communication with your living learning community coordinator met your expectations.	8.45%	8.45%	28.17%	28.17%	26.76%	3.56	1.22
The amount of informal communication with your living learning community resident assistant met your expectations.	12.68%	16.90%	35.21%	19.72%	15.49%	3.08	1.23
The amount of extra-curricular activities (e.g., hiking, sand volleyball, going to the movies, etc.) within your living learning community met your expectations.	5.63%	8.45%	26.76%	22.54%	36.62%	3.76	1.20
The amount of co-curricular activities (e.g., company visits within your field of study, a guest teacher to help with study preparation for an examination, etc.) with your living learning community met your expectations.	5.63%	14.08%	21.13%	25.35%	33.80%	3.68	1.24
The amount of support from your living learning community coordinator met your expectations.	5.63%	11.27%	22.54%	25.35%	35.21%	3.73	1.22
The amount of support from your living learning community resident assistant met your expectations.	9.86%	11.27%	35.21%	21.13%	22.54%	3.35	1.23

Note. M = mean; *SD* = standard deviation.

Table 5

Depiction of social support and programming responses by Business Living Learning Community students (n = 48)

Items	Strongly Disagree	Somewhat Disagree	Neither agree nor disagree	Somewhat Agree	Strongly Agree	*M*	*SD*
You have made friends with other students because of your involvement in your living learning community.	2.08%	0.00%	2.08%	29.17%	66.67%	4.58	0.74
You have had informal interactions with your living learning community resident assistant.	8.33%	4.17%	27.08%	33.33%	27.08%	3.67	1.17
You have had informal interactions with your living learning community coordinator.	2.08%	0.00%	14.58%	39.58%	43.75%	4.23	0.86
You have had informal interactions with a faculty member (aside from your living learning community coordinator) because of your experience in your living learning community.	6.25%	16.67%	31.25%	25.00%	20.83%	3.38	1.18
You have had informal interactions with an academic staff member (aside from your living learning community coordinator) because of your experience in your living learning community.	4.17%	20.83%	31.25%	25.00%	18.75%	3.33	1.14
Your living learning community has written goals and objectives.	0.00%	4.17%	12.50%	31.25%	52.08%	4.31	0.85
Extra-curricular activities (e.g., hiking, sand volleyball, going to the movies, etc.) are provided by your living learning community.	0.00%	0.00%	8.33%	16.67%	75.00%	4.67	0.63
Co-curricular activities (e.g., a company visit within your field of study, a guest teacher to help with study preparation for an examination, etc.) are provided by your living learning community.	0.00%	2.08%	6.25%	14.58%	77.08%	4.67	0.69
You are being provided the support needed to be a successful student by your living learning community coordinator.	2.08%	0.00%	8.33%	22.92%	66.67%	4.52	0.83
You are being provided the support needed to be a successful student by University Housing staff members affiliated with your living learning community.	4.17%	0.00%	10.42%	31.25%	54.17%	4.31	0.97

Note. M = mean; *SD* = standard deviation.

Table 6

Depiction of programming responses by Business Living Learning Community students (n = 48)

Items	Strongly Disagree	Somewhat Disagree	Neither agree nor disagree	Somewhat Agree	Strongly Agree	*M*	*SD*
You live alongside other students in a common residence hall from your living learning community.	0.00%	4.17%	4.17%	12.50%	79.17%	4.67	0.75
You are taking a freshman course at the University of Arkansas (e.g., WCOB 1111, UNIV 1001, etc.).	0.00%	0.00%	2.08%	12.50%	85.42%	4.83	0.43
You are taking a freshman course at the University of Arkansas (e.g., WCOB 1111, UNIV 1001, etc.) with other students in your living learning community.	2.08%	0.00%	4.17%	8.33%	85.42%	4.75	0.73
You take other similar courses together with students in your living learning community aside from a freshman course (e.g., WCOB 1111, UNIV 1001, etc.).	0.00%	2.08%	4.17%	12.50%	81.25%	4.73	0.64
You are taking a course associated with your living learning community in which you do not receive credit (e.g., UNIV 1200).	6.25%	2.17%	8.70%	6.52%	76.09%	4.44	1.17
You are involved in study groups because of your living learning community.	6.25%	8.33%	18.75%	20.83%	45.83%	3.92	1.25
You are involved in K-12 outreach events because of your living learning community.	33.33%	12.50%	43.75%	4.17%	6.25%	2.38	1.18
You are involved in career workshops because of your living learning community.	6.25%	12.50%	29.17%	25.00%	27.08%	3.54	1.20
You visit work settings because of your living learning community.	4.17%	0.00%	10.42%	18.75%	66.67%	4.44	0.99
You participate in theme related activities because of your living learning community.	6.25%	4.17%	20.83%	22.92%	45.83%	3.98	1.19

Note. M = mean; *SD* = standard deviation.

Table 7

Depiction of expectation responses from Business Living Learning Community students (n = 48)

Items	Significantly less than expected	Less than expected	Met expectations	More than expected	Significantly more than expected	*M*	*SD*
The amount of interactions with your peers within the living learning community met your expectations.	4.17%	4.17%	27.08%	29.17%	35.42%	3.88	1.08
The amount of informal communication with your living learning community coordinator met your expectations.	2.08%	4.17%	31.25%	29.17%	33.33%	3.88	1.00
The amount of informal communication with your living learning community resident assistant met your expectations.	8.33%	10.42%	39.58%	22.92%	18.75%	3.33	1.16
The amount of extra-curricular activities (e.g., hiking, sand volleyball, going to the movies, etc.) within your living learning community met your expectations.	8.33%	6.25%	18.75%	31.25%	41.67%	4.04	1.01
The amount of co-curricular activities (e.g., company visits within your field of study, a guest teacher to help with study preparation for an examination, etc.) with your living learning community met your expectations.	2.08%	6.25%	18.75%	31.25%	41.67%	4.04	1.03
The amount of support from your living learning community coordinator met your expectations.	0.00%	4.17%	25.00%	31.25%	39.58%	4.06	0.91
The amount of support from your living learning community resident assistant met your expectations.	6.25%	6.25%	35.42%	29.17%	22.92%	3.56	1.11

Note. M = mean; *SD* = standard deviation.

Table 8

Depiction of social support and programming responses by non-Business living learning community students (n = 23)

Items	Strongly Disagree	Somewhat Disagree	Neither agree nor disagree	Somewhat Agree	Strongly Agree	*M*	*SD*
You have made friends with other students because of your involvement in your living learning community.	4.35%	17.39%	0.00%	39.13%	39.13%	3.91	1.24
You have had informal interactions with your living learning community resident assistant.	13.04%	17.39%	17.39%	21.74%	30.43%	3.39	1.44
You have had informal interactions with your living learning community coordinator.	13.04%	17.39%	21.74%	21.74%	26.09%	3.30	1.40
You have had informal interactions with a faculty member (aside from your living learning community coordinator) because of your experience in your living learning community.	26.09%	17.39%	13.04%	21.74%	21.74%	2.96	1.55
You have had informal interactions with an academic staff member (aside from your living learning community coordinator) because of your experience in your living learning community.	26.09%	21.74%	21.74%	8.70%	21.74%	2.78	1.51
Your living learning community has written goals and objectives.	30.43%	8.70%	17.39%	21.74%	21.74%	2.96	1.58
Extra-curricular activities (e.g., hiking, sand volleyball, going to the movies, etc.) are provided by your living learning community.	4.35%	8.70%	8.70%	30.43%	47.83%	4.09	1.16
Co-curricular activities (e.g., a company visit within your field of study, a guest teacher to help with study preparation for an examination, etc.) are provided by your living learning community.	4.35%	4.35%	13.04%	21.74%	56.52%	4.22	1.13
You are being provided the support needed to be a successful student by your living learning community coordinator.	17.39%	21.74%	17.39%	0.00%	43.48%	3.30	1.64
You are being provided the support needed to be a successful student by University Housing staff members affiliated with your living learning community.	8.70%	17.39%	26.09%	13.04%	34.78%	3.48	1.38

Note. M = mean; *SD* = standard deviation.

Table 9

Depiction of programming responses by non-Business living learning community students (n = 23)

Items	Strongly Disagree	Somewhat Disagree	Neither agree nor disagree	Somewhat Agree	Strongly Agree	*M*	*SD*
You live alongside other students in a common residence hall from your living learning community.	8.70%	0.00%	0.00%	21.74%	69.57%	4.44	1.16
You are taking a freshman course at the University of Arkansas (e.g., WCOB 1111, UNIV 1001, etc.).	4.35%	0.00%	4.35%	0.00%	91.30%	4.74	0.92
You are taking a freshman course at the University of Arkansas (e.g., WCOB 1111, UNIV 1001, etc.) with other students in your living learning community.	13.04%	4.35%	8.70%	4.35%	69.57%	4.13	1.49
You take other similar courses together with students in your living learning community aside from a freshman course (e.g., WCOB 1111, UNIV 1001, etc.).	8.70%	0.00%	0.00%	26.09%	65.22%	4.39	1.16
You are taking a course associated with your living learning community in which you do not receive credit (e.g., UNIV 1200).	21.74%	13.04%	17.39%	13.04%	34.78%	3.26	1.60
You are involved in study groups because of your living learning community.	47.83%	8.70%	0.00%	17.39%	26.09%	2.65	1.80
You are involved in K-12 outreach events because of your living learning community.	56.52%	21.74%	13.04%	0.00%	8.70%	1.83	1.23
You are involved in career workshops because of your living learning community.	43.48%	26.09%	8.70%	0.00%	21.74%	2.30	1.58
You visit work settings because of your living learning community.	34.78%	13.04%	13.04%	26.09%	13.04%	2.70	1.52
You participate in theme related activities because of your living learning community.	13.04%	4.35%	4.35%	39.13%	39.13%	3.87	1.36

Note. M = mean; *SD* = standard deviation.

Table 10

Depictions of expectation responses from non-Business living learning community students (n = 23)

Items	Significantly less than expected	Less than expected	Met expectations	More than expected	Significantly more than expected	*M*	*SD*
The amount of interactions with your peers within the living learning community met your expectations.	26.09%	13.04%	26.09%	8.70%	26.09%	2.96	1.55
The amount of informal communication with your living learning community coordinator met your expectations.	21.74%	17.39%	21.74%	26.09%	13.04%	2.91	1.38
The amount of informal communication with your living learning community resident assistant met your expectations.	21.74%	30.43%	26.09%	13.04%	8.70%	2.57	1.24
The amount of extra-curricular activities (e.g., hiking, sand volleyball, going to the movies, etc.) within your living learning community met your expectations.	17.39%	8.70%	34.78%	17.39%	21.74%	3.17	1.37
The amount of co-curricular activities (e.g., company visits within your field of study, a guest teacher to help with study preparation for an examination, etc.) with your living learning community met your expectations.	13.04%	30.43%	26.09%	13.04%	17.39%	2.91	1.31
The amount of support from your living learning community coordinator met your expectations.	17.39%	26.09%	17.39%	13.04%	26.09%	3.04	1.50
The amount of support from your living learning community resident assistant met your expectations.	17.39%	21.74%	34.78%	4.35%	21.74%	2.91	1.38

Note. M = mean; *SD* = standard deviation.

Table 11

Differences in responses from Business Living Learning Community and non-Business students

	Business (n = 48)		non-Business (n = 23)			
Items	*M*	*SD*	*M*	*SD*	*U*	*p*
You have made friends with other students because of your involvement in your living learning community.	4.58	0.74	3.91	1.24	730.500	.015*
You have had informal interactions with your living learning community resident assistant.	3.67	1.17	3.39	1.44	602.500	.526
You have had informal interactions with your living learning community coordinator.	4.23	0.86	3.30	1.40	763.500	.005**
You have had informal interactions with a faculty member (aside from your living learning community coordinator) because of your experience in your living learning community.	3.38	1.18	2.96	1.55	636.500	.291
You have had informal interactions with an academic staff member (aside from your living learning community coordinator) because of your experience in your living learning community.	3.33	1.14	2.78	1.51	682	.103
Your living learning community has written goals and objectives.	4.31	0.85	2.96	1.58	827	<.001***
Extra-curricular activities (e.g., hiking, sand volleyball, going to the movies, etc.) are provided by your living learning community.	4.67	0.63	4.09	1.16	714	.013*
Co-curricular activities (e.g., a company visit within your field of study, a guest teacher to help with study preparation for an examination, etc.) are provided by your living learning community.	4.67	0.69	4.22	1.13	675	.044*
You are being provided the support needed to be a successful student by your living learning community coordinator.	4.52	0.83	3.30	1.64	765	.004**
You are being provided the support needed to be a successful student by University Housing staff members affiliated with your living learning community.	4.31	0.97	3.48	1.38	743.500	.012

Note. *M* = mean; *SD* = standard deviation; *U* = Mann-Whitney U statistic; *p* = probability value. *p <.05, **p <.01, ***p <.001.

Table 12

Differences in responses from Business Living Learning Community and non-Business students

	Business (n = 48)		non-Business (n = 23)			
Items	*M*	*SD*	*M*	*SD*	*U*	*p*
You live alongside other students in a common residence hall from your living learning community.	4.67	0.75	4.44	1.16	605	.396
You are taking a freshman course at the University of Arkansas (e.g., WCOB 1111, UNIV 1001, etc.).	4.83	0.43	4.74	0.92	526	.638
You are taking a freshman course at the University of Arkansas (e.g., WCOB 1111, UNIV 1001, etc.) with other students in your living learning community.	4.75	0.73	4.13	1.49	652.500	.073
You take other similar courses together with students in your living learning community aside from a freshman course (e.g., WCOB 1111, UNIV 1001, etc.).	4.73	0.64	4.39	1.16	640.500	.155
You are taking a course associated with your living learning community in which you do not receive credit (e.g., UNIV 1200).	4.44	1.17	3.26	1.60	759.500	.001**
You are involved in study groups because of your living learning community.	3.92	1.25	2.65	1.80	771.500	.005**
You are involved in K-12 outreach events because of your living learning community.	2.38	1.18	1.83	1.23	714.500	.033*
You are involved in career workshops because of your living learning community.	3.54	1.20	2.30	1.58	813.500	.001**
You visit work settings because of your living learning community.	4.44	0.99	2.70	1.52	911.500	<.001***
You participate in theme related activities because of your living learning community.	3.98	1.19	3.87	1.36	568	.833

Note. M = mean; *SD* = standard deviation; *U* = Mann-Whitney U statistic; *p* = probability value. $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$.

Table 13

Differences in responses from Male and Female students

Items	Male (n = 40) *M*	Male (n = 40) *SD*	Female (n = 30) *M*	Female (n = 30) *SD*	*U*	*p*
You have made friends with other students because of your involvement in your living learning community.	4.63	0.54	4.03	1.30	727.500	.087
You have had informal interactions with your living learning community resident assistant.	3.70	1.22	3.43	1.33	667.500	.410
You have had informal interactions with your living learning community coordinator.	4.15	0.98	3.67	1.30	722.500	.123
You have had informal interactions with a faculty member (aside from your living learning community coordinator) because of your experience in your living learning community.	3.38	1.21	3.07	1.46	668	.415
You have had informal interactions with an academic staff member (aside from your living learning community coordinator) because of your experience in your living learning community.	3.30	1.18	2.97	1.43	680.500	.331
Your living learning community has written goals and objectives.	4.23	0.86	3.43	1.63	738	.084
Extra-curricular activities (e.g., hiking, sand volleyball, going to the movies, etc.) are provided by your living learning community.	4.58	0.71	4.37	1.07	644	.453
Co-curricular activities (e.g., a company visit within your field of study, a guest teacher to help with study preparation for an examination, etc.) are provided by your living learning community.	4.60	0.78	4.43	1.00	648.500	.389
You are being provided the support needed to be a successful student by your living learning community coordinator.	4.55	0.85	3.60	1.55	795	.009**
You are being provided the support needed to be a successful student by University Housing staff members affiliated with your living learning community.	4.30	0.91	3.80	1.32	713.500	.120

Note. *M* = mean; *SD* = standard deviation; *U* = Mann-Whitney U statistic; *p* = probability value. $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$.

Table 14

Differences in responses from Male and Female students

Items	Male (n = 40) *M*	Male (n = 40) *SD*	Female (n = 30) *M*	Female (n = 30) *SD*	*U*	*p*
You live alongside other students in a common residence hall from your living learning community.	4.68	0.69	4.57	1.04	606.500	.890
You are taking a freshman course at the University of Arkansas (e.g., WCOB 1111, UNIV 1001, etc.).	4.78	0.73	4.87	0.43	584	.908
You are taking a freshman course at the University of Arkansas (e.g., WCOB 1111, UNIV 1001, etc.) with other students in your living learning community.	4.58	1.06	4.500	1.11	631.500	.650
You take other similar courses together with students in your living learning community aside from a freshman course (e.g., WCOB 1111, UNIV 1001, etc.).	4.55	1.04	4.77	0.43	591	.825
You are taking a course associated with your living learning community in which you do not receive credit (e.g., UNIV 1200).	4.26	1.35	3.73	1.51	690	.093
You are involved in study groups because of your living learning community.	3.80	1.36	3.20	1.71	715	.157
You are involved in K-12 outreach events because of your living learning community.	2.40	1.22	1.93	1.20	740.500	.074
You are involved in career workshops because of your living learning community.	3.58	1.30	2.57	1.48	834	.005**
You visit work settings because of your living learning community.	4.15	1.31	3.50	1.55	755.500	.048*
You participate in theme related activities because of your living learning community.	4.10	1.06	3.83	1.37	649	.544

Note. M = mean; *SD* = standard deviation; *U* = Mann-Whitney U statistic; *p* = probability value. $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$.

Table 15

Differences in responses from Sexual Majority and Sexual Minority students

	Sexual Majority (n = 56)		Sexual Minority (n = 15)			
Items	*M*	*SD*	*M*	*SD*	*U*	*p*
You have made friends with other students because of your involvement in your living learning community.	4.48	0.83	3.93	1.34	509.500	.334
You have had informal interactions with your living learning community resident assistant.	3.61	1.25	3.47	1.36	443.500	.752
You have had informal interactions with your living learning community coordinator.	3.93	1.06	3.93	1.44	382.500	.615
You have had informal interactions with a faculty member (aside from your living learning community coordinator) because of your experience in your living learning community.	3.18	1.30	3.47	1.41	366	.445
You have had informal interactions with an academic staff member (aside from your living learning community coordinator) because of your experience in your living learning community.	3.14	1.26	3.20	1.42	410	.953
Your living learning community has written goals and objectives.	3.96	1.19	3.53	1.64	462	.538
Extra-curricular activities (e.g., hiking, sand volleyball, going to the movies, etc.) are provided by your living learning community.	4.50	0.87	4.40	0.91	451	<.001***
Co-curricular activities (e.g., a company visit within your field of study, a guest teacher to help with study preparation for an examination, etc.) are provided by your living learning community.	4.63	0.70	4.13	1.30	494	.197
You are being provided the support needed to be a successful student by your living learning community coordinator.	4.27	1.12	3.60	1.68	495.500	.241
You are being provided the support needed to be a successful student by University Housing staff members affiliated with your living learning community.	4.16	1.06	3.60	1.50	501.500	.228

Note. M = mean; *SD* = standard deviation; *U* = Mann-Whitney U statistic; *p* = probability value. $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$.

Table 16

Differences in responses from Sexual Majority and Sexual Minority students

Items	Sexual Majority (n = 56)		Sexual Minority (n = 15)			
	M	*SD*	*M*	*SD*	*U*	*p*
You live alongside other students in a common residence hall from your living learning community.	4.75	0.58	4.00	1.51	523.500	.058
You are taking a freshman course at the University of Arkansas (e.g., WCOB 1111, UNIV 1001, etc.).	4.84	0.60	4.67	0.72	462.500	.623
You are taking a freshman course at the University of Arkansas (e.g., WCOB 1111, UNIV 1001, etc.) with other students in your living learning community.	4.64	0.92	4.20	1.47	467	.303
You take other similar courses together with students in your living learning community aside from a freshman course (e.g., WCOB 1111, UNIV 1001, etc.).	4.68	0.81	4.40	0.99	480	.237
You are taking a course associated with your living learning community in which you do not receive credit (e.g., UNIV 1200).	4.13	1.43	3.73	1.44	479	.213
You are involved in study groups because of your living learning community.	3.66	1.46	2.93	1.83	512	.183
You are involved in K-12 outreach events because of your living learning community.	2.18	1.18	2.27	1.39	417	.953
You are involved in career workshops because of your living learning community.	3.13	1.40	3.20	1.66	405	.854
You visit work settings because of your living learning community.	3.96	1.36	3.53	1.69	480.500	.364
You participate in theme related activities because of your living learning community.	3.96	1.14	3.87	1.60	395	.718

Note. M = mean; *SD* = standard deviation; *U* = Mann-Whitney U statistic; *p* = probability value. $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$.

Table 17

Differences in responses from students with Disabilities and Without Disabilities

	Disability (n = 25)		No Disability (n = 46)			
Items	*M*	*SD*	*M*	*SD*	*U*	*p*
You have made friends with other students because of your involvement in your living learning community.	4.16	1.21	4.48	0.81	525	.527
You have had informal interactions with your living learning community resident assistant.	3.76	1.20	3.48	1.30	645	.382
You have had informal interactions with your living learning community coordinator.	3.84	1.34	3.98	1.02	570	.942
You have had informal interactions with a faculty member (aside from your living learning community coordinator) because of your experience in your living learning community.	3.40	1.58	3.15	1.15	650	.360
You have had informal interactions with an academic staff member (aside from your living learning community coordinator) because of your experience in your living learning community.	3.20	1.53	3.13	1.15	597	.796
Your living learning community has written goals and objectives.	3.72	1.51	3.96	1.17	555.500	.803
Extra-curricular activities (e.g., hiking, sand volleyball, going to the movies, etc.) are provided by your living learning community.	4.44	0.87	4.50	0.89	550	.031*
Co-curricular activities (e.g., a company visit within your field of study, a guest teacher to help with study preparation for an examination, etc.) are provided by your living learning community.	4.20	1.16	4.70	0.63	455	.076
You are being provided the support needed to be a successful student by your living learning community coordinator.	3.84	1.55	4.28	1.09	508	.371
You are being provided the support needed to be a successful student by University Housing staff members affiliated with your living learning community.	3.92	1.32	4.11	1.10	545.500	.719

Note. *M* = mean; *SD* = standard deviation; *U* = Mann-Whitney U statistic; *p* = probability value. $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$.

Table 18

Differences in responses from students with Disabilities and Without Disabilities

	Disability (n = 25)		No Disability (n = 46)			
Items	*M*	*SD*	*M*	*SD*	*U*	*p*
You live alongside other students in a common residence hall from your living learning community.	4.32	1.18	4.74	0.68	461	.072
You are taking a freshman course at the University of Arkansas (e.g., WCOB 1111, UNIV 1001, etc.).	4.76	0.60	4.83	0.64	543.500	.508
You are taking a freshman course at the University of Arkansas (e.g., WCOB 1111, UNIV 1001, etc.) with other students in your living learning community.	4.20	1.38	4.74	0.80	460	.049*
You take other similar courses together with students in your living learning community aside from a freshman course (e.g., WCOB 1111, UNIV 1001, etc.).	4.68	0.56	4.59	0.98	549.500	.074
You are taking a course associated with your living learning community in which you do not receive credit (e.g., UNIV 1200).	3.83	1.44	4.16	1.43	453	.210
You are involved in study groups because of your living learning community.	3.48	1.76	3.52	1.46	594.500	.809
You are involved in K-12 outreach events because of your living learning community.	2.24	1.23	2.17	1.22	593	.836
You are involved in career workshops because of your living learning community.	2.96	1.59	3.24	1.37	516	.488
You visit work settings because of your living learning community.	3.44	1.73	4.11	1.20	470.500	.183
You participate in theme related activities because of your living learning community.	3.80	1.35	4.02	1.18	527	.547

Note. *M* = mean; *SD* = standard deviation; *U* = Mann-Whitney U statistic; *p* = probability value. $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$.

Table 19

Differences in responses from Ethnic Majority and Ethnic Minority students

	Ethnic Majority (n = 56)		Ethnic Minority (n = 15)			
Items	*M*	*SD*	*M*	*SD*	*U*	*p*
You have made friends with other students because of your involvement in your living learning community.	4.38	0.91	4.33	1.23	387	.554
You have had informal interactions with your living learning community resident assistant.	3.63	1.20	3.40	1.50	442.500	.756
You have had informal interactions with your living learning community coordinator.	3.84	1.14	4.27	1.10	316.500	.131
You have had informal interactions with a faculty member (aside from your living learning community coordinator) because of your experience in your living learning community.	3.14	1.35	3.60	1.12	343.500	.279
You have had informal interactions with an academic staff member (aside from your living learning community coordinator) because of your experience in your living learning community.	3.09	1.34	3.40	1.06	363.500	.440
Your living learning community has written goals and objectives.	3.84	1.25	4.00	1.51	354.500	.330
Extra-curricular activities (e.g., hiking, sand volleyball, going to the movies, etc.) are provided by your living learning community.	4.43	0.89	4.67	0.82	347.500	.795
Co-curricular activities (e.g., a company visit within your field of study, a guest teacher to help with study preparation for an examination, etc.) are provided by your living learning community.	4.46	0.93	4.73	0.59	364.500	.354
You are being provided the support needed to be a successful student by your living learning community coordinator.	4.11	1.25	4.20	1.42	371	.442
You are being provided the support needed to be a successful student by University Housing staff members affiliated with your living learning community.	4.04	1.13	4.07	1.39	383	.572

Note. M = mean; *SD* = standard deviation; *U* = Mann-Whitney U statistic; *p* = probability value. $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$.

Table 20

Differences in responses from students with Ethnic Majority and Ethnic Minority students

	Ethnic Majority (n = 56)		Ethnic Minority (n = 15)			
Items	*M*	*SD*	*M*	*SD*	*U*	*p*
You live alongside other students in a common residence hall from your living learning community.	4.64	0.80	4.40	1.24	441.500	.630
You are taking a freshman course at the University of Arkansas (e.g., WCOB 1111, UNIV 1001, etc.) with other students in your living learning community.	4.54	1.06	4.60	1.12	391	.604
You take other similar courses together with students in your living learning community aside from a freshman course (e.g., WCOB 1111, UNIV 1001, etc.).	4.64	0.84	4.53	0.92	440	.673
You are taking a course associated with your living learning community in which you do not receive credit (e.g., UNIV 1200).	4.07	1.43	3.93	1.49	409	.678
You are involved in study groups because of your living learning community.	3.54	1.51	3.40	1.77	423.500	.960
You are involved in K-12 outreach events because of your living learning community.	2.13	1.19	2.47	1.30	359.500	.363
You are involved in career workshops because of your living learning community.	3.05	1.42	3.47	1.55	350.500	.339
You visit work settings because of your living learning community.	3.88	1.38	3.88	1.69	387.500	.623
You participate in theme related activities because of your living learning community.	3.91	1.21	4.07	1.39	368	.442

Note. M = mean; *SD* = standard deviation; *U* = Mann-Whitney U statistic; *p* = probability value. $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$.

Table 21

Differences in responses from students with Risk Factors and students Without Risk Factors

Items	Risk Factors (n = 39)		Without Risk Factors (n = 30)			
	M	*SD*	*M*	*SD*	*U*	*p*
You have made friends with other students because of your involvement in your living learning community.	4.26	1.09	4.50	0.89	423.500	.489
You have had informal interactions with your living learning community resident assistant.	3.51	1.30	3.83	1.20	400.500	.328
You have had informal interactions with your living learning community coordinator.	3.87	1.30	4.00	0.89	476.500	.907
You have had informal interactions with a faculty member (aside from your living learning community coordinator) because of your experience in your living learning community.	3.36	1.37	3.08	1.28	525	.414
You have had informal interactions with an academic staff member (aside from your living learning community coordinator) because of your experience in your living learning community.	3.18	1.32	3.04	1.23	501	.635
Your living learning community has written goals and objectives.	3.77	1.44	3.92	1.18	470	.974
Extra-curricular activities (e.g., hiking, sand volleyball, going to the movies, etc.) are provided by your living learning community.	4.56	0.75	4.42	0.97	500.500	.583
Co-curricular activities (e.g., a company visit within your field of study, a guest teacher to help with study preparation for an examination, etc.) are provided by your living learning community.	4.39	1.02	4.75	0.44	405	.265
You are being provided the support needed to be a successful student by your living learning community coordinator.	3.95	1.43	4.33	1.05	428	.528
You are being provided the support needed to be a successful student by University Housing staff members affiliated with your living learning community.	3.95	1.30	4.21	0.98	439	.665

Note. M = mean; *SD* = standard deviation; *U* = Mann-Whitney U statistic; *p* = probability value. $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$.

Table 22

Differences in responses from students with Risk Factors and students Without Risk Factors

Items	Risk Factors (n = 39)		Without Risk Factors (n = 30)			
	M	*SD*	*M*	*SD*	*U*	*p*
You live alongside other students in a common residence hall from your living learning community.	4.44	1.07	4.75	0.68	398	.189
You are taking a freshman course at the University of Arkansas (e.g., WCOB 1111, UNIV 1001, etc.).	4.82	0.51	4.75	0.85	467	.883
You are taking a freshman course at the University of Arkansas (e.g., WCOB 1111, UNIV 1001, etc.) with other students in your living learning community.	4.49	1.17	4.58	1.02	464	.903
You take other similar courses together with students in your living learning community aside from a freshman course (e.g., WCOB 1111, UNIV 1001, etc.).	4.59	0.72	4.58	1.14	411	.304
You are taking a course associated with your living learning community in which you do not receive credit (e.g., UNIV 1200).	3.95	1.39	4.13	1.52	388	.412
You are involved in study groups because of your living learning community.	3.31	1.72	3.63	1.38	439	.682
You are involved in K-12 outreach events because of your living learning community.	2.26	1.19	2.04	1.16	516	.465
You are involved in career workshops because of your living learning community.	3.13	1.54	3.21	1.29	457	.866
You visit work settings because of your living learning community.	3.64	1.66	4.04	1.12	438	.647
You participate in theme related activities because of your living learning community.	3.85	1.41	3.92	1.10	485	.805

Note. M = mean; *SD* = standard deviation; *U* = Mann-Whitney U statistic; *p* = probability value. $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$.

Table 23

Differences in responses from Business Living Learning Community and non-Business students

	Business (n = 48)		non-Business (n = 23)			
Items	*M*	*SD*	*M*	*SD*	*U*	*p*
The amount of interactions with your peers within the living learning community met your expectations.	3.88	1.08	2.96	1.55	741	.016
The amount of informal communication with your living learning community coordinator met your expectations.	3.88	1.00	2.91	1.38	771	.005**
The amount of informal communication with your living learning community resident assistant met your expectations.	3.33	1.16	2.57	1.24	750	.012
The amount of extra-curricular activities (e.g., hiking, sand volleyball, going to the movies, etc.) within your living learning community met your expectations.	4.04	1.01	3.17	1.37	752.500	.005**
The amount of co-curricular activities (e.g., company visits within your field of study, a guest teacher to help with study preparation for an examination, etc.) with your living learning community met your expectations.	4.04	1.03	2.91	1.31	820.500	.001**
The amount of support from your living learning community coordinator met your expectations.	4.06	0.91	3.04	1.50	770.500	.005**
The amount of support from your living learning community resident assistant met your expectations.	3.56	1.11	2.91	1.38	717	.035*

Note. M = mean; *SD* = standard deviation; *U* = Mann-Whitney U statistic; *p* = probability value. $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$.

Table 24

Differences in responses from Male and Female students

Items	Male (n = 40) *M*	Male (n = 40) *SD*	Female (n = 30) *M*	Female (n = 30) *SD*	*U*	*p*
The amount of interactions with your peers within the living learning community met your expectations.	3.98	1.03	3.13	1.47	797	.013*
The amount of informal communication with your living learning community coordinator met your expectations.	3.95	0.99	3.10	1.32	822.500	<.001***
The amount of informal communication with your living learning community resident assistant met your expectations.	3.45	1.11	2.67	1.213	828.500	.005**
The amount of extra-curricular activities (e.g., hiking, sand volleyball, going to the movies, etc.) within your living learning community met your expectations.	3.95	1.04	3.57	1.36	683	.057
The amount of co-curricular activities (e.g., company visits within your field of study, a guest teacher to help with study preparation for an examination, etc.) with your living learning community met your expectations.	3.93	1.12	3.40	1.33	735	.096
The amount of support from your living learning community coordinator met your expectations.	4.23	0.86	3.13	1.33	884	<.001***
The amount of support from your living learning community resident assistant met your expectations.	3.73	1.06	2.90	1.30	828.500	.001**

Note. M = mean; *SD* = standard deviation; *U* = Mann-Whitney U statistic; *p* = probability value. $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$.

Table 25

Differences in responses from Sexual Majority and Sexual Minority students

	Sexual Majority (n = 56)		Sexual Minority (n = 15)			
Items	*M*	*SD*	*M*	*SD*	*U*	*p*
The amount of interactions with your peers within the living learning community met your expectations.	3.71	1.20	3.07	1.62	512.500	0.185
The amount of informal communication with your living learning community coordinator met your expectations.	3.57	1.20	3.53	1.30	422.500	0.977
The amount of informal communication with your living learning community resident assistant met your expectations.	3.14	1.17	2.87	1.50	476	0.429
The amount of extra-curricular activities (e.g., hiking, sand volleyball, going to the movies, etc.) within your living learning community met your expectations.	3.77	1.16	3.73	1.39	415.500	0.936
The amount of co-curricular activities (e.g., company visits within your field of study, a guest teacher to help with study preparation for an examination, etc.) with your living learning community met your expectations.	3.71	1.16	3.53	1.55	432	0.904
The amount of support from your living learning community coordinator met your expectations.	3.82	1.11	3.40	1.55	476.500	0.462
The amount of support from your living learning community resident assistant met your expectations.	3.38	1.17	3.27	1.49	440	0.773

Note. M = mean; *SD* = standard deviation; *U* = Mann-Whitney U statistic; *p* = probability value. $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$.

Table 26

Differences in responses from students with Disabilities and Without Disabilities

	Disability (n =25)		No Disability (n = 46)			
Items	*M*	*SD*	*M*	*SD*	*U*	*p*
The amount of interactions with your peers within the living learning community met your expectations.	3.36	1.50	3.70	1.21	515	.456
The amount of informal communication with your living learning community coordinator met your expectations.	3.56	1.26	3.57	1.21	577	.991
The amount of informal communication with your living learning community resident assistant met your expectations.	2.80	1.38	3.24	1.12	463.500	.169
The amount of extra-curricular activities (e.g., hiking, sand volleyball, going to the movies, etc.) within your living learning community met your expectations.	3.80	1.23	3.74	1.20	591	.852
The amount of co-curricular activities (e.g., company visits within your field of study, a guest teacher to help with study preparation for an examination, etc.) with your living learning community met your expectations.	3.64	1.35	3.70	1.19	574	.974
The amount of support from your living learning community coordinator met your expectations.	3.72	1.34	3.74	1.16	585	.898
The amount of support from your living learning community resident assistant met your expectations.	3.28	1.46	3.39	1.11	553	.788

Note. M = mean; *SD* = standard deviation; *U* = Mann-Whitney U statistic; *p* = probability value. $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$.

Table 27

Differences in responses from Ethnic Majority and Ethnic Minority students

	Ethnic Majority (n = 56)		Ethnic Minority (n = 15)			
Items	*M*	*SD*	*M*	*SD*	*U*	*p*
The amount of interactions with your peers within the living learning community met your expectations.	3.55	1.24	3.67	1.63	371	.482
The amount of informal communication with your living learning community coordinator met your expectations.	3.52	1.19	3.73	1.34	370.500	.468
The amount of informal communication with your living learning community resident assistant met your expectations.	2.98	1.18	3.47	1.36	320.500	.153
The amount of extra-curricular activities (e.g., hiking, sand volleyball, going to the movies, etc.) within your living learning community met your expectations.	3.71	1.16	3.93	1.39	359.500	.373
The amount of co-curricular activities (e.g., company visits within your field of study, a guest teacher to help with study preparation for an examination, etc.) with your living learning community met your expectations.	3..64	1.21	3.80	1.37	379	.653
The amount of support from your living learning community coordinator met your expectations.	3.70	1.16	3.87	1.46	364.500	.427
The amount of support from your living learning community resident assistant met your expectations.	3.27	1.21	3.67	1.29	339.500	.245

Note. M = mean; *SD* = standard deviation; *U* = Mann-Whitney U statistic; *p* = probability value. $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$.

Table 28

Differences in responses from students with Risk Factors and students Without Risk Factors

Items	Risk Factors (n = 39)		Without Risk Factors (n = 30)			
	M	*SD*	*M*	*SD*	*U*	*p*
The amount of interactions with your peers within the living learning community met your expectations.	3.36	1.51	3.71	1.00	428.500	.573
The amount of informal communication with your living learning community coordinator met your expectations.	3.56	1.31	3.54	1.02	492	.722
The amount of informal communication with your living learning community resident assistant met your expectations.	3.00	1.36	3.13	0.99	443	.720
The amount of extra-curricular activities (e.g., hiking, sand volleyball, going to the movies, etc.) within your living learning community met your expectations.	3.85	1.27	3.54	1.02	552.500	.218
The amount of co-curricular activities (e.g., company visits within your field of study, a guest teacher to help with study preparation for an examination, etc.) with your living learning community met your expectations.	3.62	1.35	3.58	1.06	494.500	.715
The amount of support from your living learning community coordinator met your expectations.	3.67	1.31	3.71	1.04	472.500	.975
The amount of support from your living learning community resident assistant met your expectations.	3.31	1.34	3.29	1.00	466.500	.986

Note. M = mean; *SD* = standard deviation; *U* = Mann-Whitney U statistic; *p* = probability value. $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$.

APPENDICES

Appendix A: University Housing Letter

UNIVERSITY OF ARKANSAS

University Housing

November 18, 2022

University of Arkansas Institutional Review Board:

I am writing in support of an exempt decision for Mr. Cody Lindbloom's Institutional Review Board submission for his doctoral dissertation.

Mr. Lindbloom's dissertation research is focused on administering a survey measuring the perceptions of first-semester living learning community students to determine whether social integration and recommended best practices are being implemented in their communities (regardless of risk factors they may self-report) and to determine their levels of expectations regarding social interactions and programming.

Mr. Lindbloom's survey is aiming to explore similar information that University Housing would like to use in addition to or as a supplement to our annual survey regarding student outcomes within living learning communities on campus.

Given that his research is time-sensitive to first-semester students, I wanted to provide this letter in support of an exempt decision for Mr. Lindbloom's survey research.

Sincerely,

Megan Witherspoon Evans
Associate Director for Residence Education
University Housing

960 West Douglas Street • 1 University of Arkansas • Fayetteville, AR 72701 • 479-575-3951 • housing.uark.edu

Appendix B: IRB Approval Letter

UNIVERSITY OF ARKANSAS

To:	Cody J Lindbloom
From:	Douglas J Adams, Chair IRB Expedited Review
Date:	12/05/2022
Action:	**Exemption Granted**
Action Date:	12/05/2022
Protocol #:	2211437869
Study Title:	An Exploratory Analysis on the Lived Experiences of First-Year Students participating in Living Learning Communities on a College Campus

The above-referenced protocol has been determined to be exempt.

If you wish to make any modifications in the approved protocol that may affect the level of risk to your participants, you must seek approval prior to implementing those changes. All modifications must provide sufficient detail to assess the impact of the change.

If you have any questions or need any assistance from the IRB, please contact the IRB Coordinator at 109 MLKG Building, 5-2208, or irb@uark.edu.

cc: Peggy W Schaefer-Whitby, Investigator
EmmaLe A Davis, Investigator

Appendix C: Pilot Survey Introduction Email

Subject: Living Learning Community Pilot Survey

Good morning,

My name is Cody Lindbloom (principal researcher) and I am a PhD student in Curriculum and Instruction here at the University of Arkansas. I am working alongside my PhD advisor, Dr. Peggy Schaefer-Whitby (supervisor), and Dr. EmmaLe Davis (co-investigator and committee member), in surveying living learning community students to determine the various perceptions of first-semester students.

I am currently requesting your voluntary participation in a pilot survey study regarding living learning community participation. Your participation in answering questions should last between 10-20 minutes.

The link to the pilot survey is here: https://waltonuark.az1.qualtrics.com/jfe/form/SV_9HPKLnUAgUXqps

The purpose of this exploratory study is to determine the various perceptions of first-semester students within living learning communities so that appropriate modifications to those communities can be considered in the future.

This study is anonymous. Any collected data will remain anonymous and there will be no names collected or stored associated with your responses. Refusing to participate will not result in any adverse effects or negative relations with any individuals associated with this research or the University of Arkansas.

Your participation in this research is voluntary. By responding "Yes" to the question below, you consent to participate in this survey in which all collected information will be anonymous and no names will be associated with the collected data.

If you have any questions regarding this study, please feel free to contact either me (cjlindbl@uark.edu), my PhD advisor (pschaefe@uark.edu), the co-investigator (edavis@walton.uark.edu), or the University of Arkansas' Institutional Review Board (irb@uark.edu).

Thank you for your consideration in participating in this pilot survey.

Cody Lindbloom

Appendix D: Final Request to Participate in Pilot Study Email

Subject: Final Request to Participate in Living Learning Community Pilot Study

Good morning,

As a former living learning community student, I am contacting you one last time to see if you would be willing to be a part of a pilot survey for a larger living learning community study which I anticipate administering to current students.

I am requesting you to please participate to help determine reliability and to determine any issues in responding. The importance of doing an exercise like this is to anticipate how current living learning community students may respond.

If you are willing to participate, please see the link: https://waltonuark.az1.qualtrics.com/jfe/form/SV_9HPKLnUAgUXqpsG

This study is anonymous. Any collected data will remain anonymous and there will be no names collected or stored associated with your responses. Refusing to participate will not result in any adverse effects or negative relations with any individuals associated with this research or the University of Arkansas.

Your participation in this research is voluntary. By responding "Yes" to the question below, you consent to participate in this survey in which all collected information will be anonymous and no names will be associated with the collected data.

If you have any questions regarding this study, please feel free to contact either me (cjlindbl@uark.edu), my PhD advisor (pschaefe@uark.edu), the co-investigator (edavis@walton.uark.edu), or the University of Arkansas' Institutional Review Board (irb@uark.edu).

Cody Lindbloom

Appendix E: Living Learning Community Pilot Survey

My name is Cody Lindbloom (principal researcher) and I am a PhD student in Curriculum and Instruction here at the University of Arkansas. I am working alongside my PhD advisor, Dr. Peggy Schaefer-Whitby (supervisor), and Dr. EmmaLe Davis (co-investigator and committee member), in surveying living learning community students to determine the various perceptions of first-semester students.

I am currently requesting your voluntary participation in a pilot survey study regarding living learning community participation. Your participation in answering questions should last between 10-20 minutes.

The purpose of this exploratory study is to determine the various perceptions of first-semester students within living learning communities so that appropriate modifications to those communities can be considered in the future.

This study is anonymous. Any collected data will remain anonymous and there will be no names collected or stored associated with your responses. Refusing to participate will not result in any adverse effects or negative relations with any individuals associated with this research or the University of Arkansas.

Your participation in this research is voluntary. By responding "Yes" to the question below, you consent to participate in this survey in which all collected information will be anonymous and no names will be associated with the collected data.

If you have any questions regarding this study, please feel free to contact either me (cjlindbl@uark.edu), my PhD advisor (pschaefe@uark.edu), the co-investigator (edavis@walton.uark.edu), or the University of Arkansas' Institutional Review Board (irb@uark.edu).

1. Do you consent to participate in this survey regarding living learning communities?

    a. Yes

    b. No

2. Which living learning community are you involved in?

a. Agriculture, Food & Life Sciences

b. Air Force ROTC

c. Architecture and Design

d. Art

e. Business

f. Music

g. I am not a member of a living learning community

1. You have made friends with other students because of your involvement in the living learning community.

1. Strongly disagree 2. Somewhat disagree 3. Neither disagree nor agree 4. Somewhat agree 5. Strongly agree

2. You have had informal interactions with your living learning community resident assistant.

1. Strongly disagree 2. Somewhat disagree 3. Neither disagree nor agree 4. Somewhat agree 5. Strongly agree

3. You have had informal interactions with your living learning community coordinator.

1. Strongly disagree 2. Somewhat disagree 3. Neither disagree nor agree 4. Somewhat agree 5. Strongly agree

4. You have had informal interactions with a faculty member (aside from your living learning community coordinator) because of your experience in your living learning community.

1. Strongly disagree 2. Somewhat disagree 3. Neither disagree nor agree 4. Somewhat agree

5. Strongly agree

5. You have had informal interactions with an academic staff member (aside from your living learning community coordinator) because of your experience in your living learning community.

1. Strongly disagree 2. Somewhat disagree 3. Neither disagree nor agree 4. Somewhat agree

5. Strongly agree

6. Your living learning community has written goals and objectives.

1. Strongly disagree 2. Somewhat disagree 3. Neither disagree nor agree 4. Somewhat agree

5. Strongly agree

7. Extra-curricular activities (e.g., hiking, sand volleyball, going to the movies, etc.) are provided by your living learning community.

1. Strongly disagree 2. Somewhat disagree 3. Neither disagree nor agree 4. Somewhat agree

5. Strongly agree

8. Co-cocurricular activities (e.g., a company visit within your field of study, a guest teacher to help with study preparation for an examination) are provided by your living learning community.

1. Strongly disagree 2. Somewhat disagree 3. Neither disagree nor agree 4. Somewhat agree

5. Strongly agree

9. You are being provided the support needed to be a successful student by your living learning community coordinator.

1. Strongly disagree 2. Somewhat disagree 3. Neither disagree nor agree 4. Somewhat agree 5. Strongly agree

10. You are being provided the support needed to be a successful student by University Housing staff members affiliated with your living learning community.

1. Strongly disagree 2. Somewhat disagree 3. Neither disagree nor agree 4. Somewhat agree 5. Strongly agree

11. You live alongside other students in a common residence hall from your living learning community.

1. Strongly disagree 2. Somewhat disagree 3. Neither disagree nor agree 4. Somewhat agree 5. Strongly agree

12. You are taking a freshman course at the University of Arkansas (e.g., WCOB 1111, UNIV 1001, etc.).

1. Strongly disagree 2. Somewhat disagree 3. Neither disagree nor agree 4. Somewhat agree 5. Strongly agree

13. You are taking a freshman course at the University of Arkansas (e.g., WCOB 1111, UNIV 1001, etc.) with other students in your living learning community.

1. Strongly disagree 2. Somewhat disagree 3. Neither disagree nor agree 4. Somewhat agree 5. Strongly agree

14. You take other similar courses together with students in your living learning community aside from a freshman course (e.g., WCOB 1111, UNIV 1001, etc.).

1. Strongly disagree 2. Somewhat disagree 3. Neither disagree nor agree 4. Somewhat agree 5. Strongly agree

15. You are taking a course associated with your living learning community in which you do not receive credit (e.g., UNIV 1200).

1. Strongly disagree 2. Somewhat disagree 3. Neither disagree nor agree 4. Somewhat agree 5. Strongly agree

16. You are involved in study groups because of your living learning community.

1. Strongly disagree 2. Somewhat disagree 3. Neither disagree nor agree 4. Somewhat agree 5. Strongly agree

17. You are involved in K-12 outreach events because of your living learning community.

1. Strongly disagree 2. Somewhat disagree 3. Neither disagree nor agree 4. Somewhat agree 5. Strongly agree

18. You are involved in career workshops because of your living learning community.

1. Strongly disagree 2. Somewhat disagree 3. Neither disagree nor agree 4. Somewhat agree 5. Strongly agree

19. You visit work settings because of your living learning community.

1. Strongly disagree 2. Somewhat disagree 3. Neither disagree nor agree 4. Somewhat agree 5. Strongly agree

20. You participate in theme related activities because of your living learning community.

1. Strongly disagree 2. Somewhat disagree 3. Neither disagree nor agree 4. Somewhat agree

5. Strongly agree

21. The amount of interactions with your peers within the living learning community met your expectations.

1. Significantly less than expected 2. Less than expected 3. Met expectations 4. More than expected

5. Significantly more than expected

22. The amount of informal communication with your living learning community coordinator met your expectations.

1. Significantly less than expected 2. Less than expected 3. Met expectations 4. More than expected

5. Significantly more than expected

23. The amount of informal communication with your living learning community resident assistant met your expectations.

1. Significantly less than expected 2. Less than expected 3. Met expectations 4. More than expected

5. Significantly more than expected

24. The amount of extra-curricular activities (e.g., hiking, sand volleyball, going to the movies, etc.) within your living learning community met your expectations.

1. Significantly less than expected 2. Less than expected 3. Met expectations 4. More than expected

5. Significantly more than expected

25. The amount of co-curricular activities (e.g., company visits within your field of study, a guest teacher to help with study preparation for an examination, etc.) with your living learning community met your expectations.

1. Significantly less than expected 2. Less than expected 3. Met expectations 4. More than expected 5. Significantly more than expected

26. The amount of support from your living learning community coordinator met your expectations.

1. Significantly less than expected 2. Less than expected 3. Met expectations 4. More than expected 5. Significantly more than expected

27. The amount of support from your living learning community resident assistant met your expectations.

1. Significantly less than expected 2. Less than expected 3. Met expectations 4. More than expected 5. Significantly more than expected

Appendix F: Living Learning Community Survey Introduction Email

Subject: Living Learning Community Survey Request

Good evening,

My name is Cody Lindbloom and I am a PhD Candidate in Curriculum and Instruction here at the University of Arkansas. I am working alongside my PhD advisor, Dr. Peggy Schaefer-Whitby, and committee member, Dr. EmmaLe Davis, in surveying various perceptions of first-semester living learning community students.

As a current living learning community student, I am contacting you to see if you would be willing to participate in survey research regarding living learning communities.

I will be sending you an email with a survey on December 9th if you are interested in participating. Thank you for your consideration in completing this survey. The purpose of this exploratory study is to determine the various perceptions of first-semester students within living learning communities so that appropriate modifications to those communities can be considered in the future.

This study is anonymous. Any collected data will remain anonymous and there will be no names collected or stored associated with your responses. Refusing to participate will not result in any adverse effects or negative relations with any individuals associated with this research or the University of Arkansas.

If you have any questions regarding this study, please feel free to contact either me (cjlindbl@uark.edu), my PhD advisor (pschaefe@uark.edu), the co-investigator (edavis@walton.uark.edu), or the University of Arkansas' Institutional Review Board (irb@uark.edu).

Sincerely,
Cody Lindbloom
PhD Candidate in Curriculum and Instruction
University of Arkansas

cc: Dr. Peggy Schaefer-Whitby
Dr. EmmaLe Davis

Appendix G: Living Learning Community Survey Email

Subject: Living Learning Community Survey

Good morning,

My name is Cody Lindbloom and I am a PhD Candidate in Curriculum and Instruction here at the University of Arkansas. I am working alongside my PhD advisor, Dr. Peggy Schaefer-Whitby, and committee member, Dr. EmmaLe Davis, in surveying perceptions of first-semester living learning community students.

As a current living learning community student, I previously contacted you to see if you would be willing to be a participant in survey research for a study
regarding living learning communities on campus. The purpose of this exploratory study is to determine the various perceptions of first-semester students within living learning communities so that appropriate modifications to those communities can be considered in the future.

This study is anonymous. Any collected data will remain anonymous and there will be no names collected or stored associated with your responses. Refusing to participate will not result in any adverse effects or negative relations with any individuals associated with this research or the University of Arkansas.

If you consent and are willing to complete the survey, please click on the link below.

https://waltonuark.az1.qualtrics.com/jfe/form/SV_6Lqx6j5FjpjaaNM

Thank you for your consideration in completing this survey.

If you have any questions regarding this study, please feel free to contact either me (cjlindbl@uark.edu), my PhD advisor (pschaefe@uark.edu), the co-investigator (edavis@walton.uark.edu), or the University of Arkansas' Institutional Review Board (irb@uark.edu).

Sincerely,
Cody Lindbloom
PhD Candidate in Curriculum and Instruction
University of Arkansas

cc: Dr. Peggy Schaefer-Whitby
Dr. EmmaLe Davis

Appendix H: Follow-Up Living Learning Community Survey Email

Subject: Living Learning Community Follow-Up Survey

Good morning,

My name is Cody Lindbloom and I am a PhD Candidate in Curriculum and Instruction here at the University of Arkansas. I am working alongside my PhD advisor, Dr. Peggy Schaefer-Whitby, and committee member, Dr. EmmaLe Davis, in surveying perceptions of first-semester living learning community students.

I am contacting you again to see if you would be willing to participate in a survey regarding your experience in your living learning community. If you are willing and consent to participate, you can find the link to
the survey here: https://waltonuark.az1.qualtrics.com/jfe/form/SV_6Lqx6j5FjpjaaNM

The purpose of this exploratory study is to determine the various perceptions of first-semester students within living learning communities so that appropriate modifications to those communities can be considered in the future.

This study is anonymous. Any collected data will remain anonymous and there will be no names collected or stored associated with your responses. Refusing to participate will not result in any adverse effects or negative relations with any individuals associated with this research or the University of Arkansas.

Thank you for your consideration in completing this survey.

If you have any questions regarding this study, please feel free to contact either me (cjlindbl@uark.edu), my PhD advisor (pschaefe@uark.edu), the co-investigator (edavis@walton.uark.edu), or the University of Arkansas' Institutional Review Board (irb@uark.edu).

Sincerely,
Cody Lindbloom
PhD Candidate in Curriculum and Instruction
University of Arkansas

cc: Dr. Peggy Schaefer-Whitby
Dr. EmmaLe Davis

Appendix I: Living Learning Community Survey

My name is Cody Lindbloom (principal researcher) and I am a PhD student in Curriculum and Instruction here at the University of Arkansas. I am working alongside my PhD advisor, Dr. Peggy Schaefer-Whitby (supervisor), and Dr. EmmaLe Davis (co-investigator and committee member), in surveying living learning community students to determine the various perceptions of first-semester students.

I am currently requesting your voluntary participation a survey study regarding living learning community participation. Your participation in answering questions should take no longer than 10 minutes.

The purpose of this exploratory study is to determine the various perceptions of first-semester students within living learning communities so that appropriate modifications to those communities can be considered in the future.

This study is anonymous. Any collected data will remain anonymous and there will be no names collected or stored associated with your responses. Refusing to participate will not result in any adverse effects or negative relations with any individuals associated with this research or the University of Arkansas.

Your participation in this research is voluntary. By responding "Yes" to the question below, you consent to participate in this survey in which all collected information will be anonymous and no names will be associated with the collected data.

If you have any questions regarding this study, please feel free to contact either me (cjlindbl@uark.edu), my PhD advisor (pschaefe@uark.edu), the co-investigator (edavis@walton.uark.edu), or the University of Arkansas' Institutional Review Board (irb@uark.edu).

1. Do you consent to participate in this survey regarding living learning communities?

    a. Yes

    b. No

2. Which living learning community are you involved in?

a. Agriculture, Food & Life Sciences

b. Air Force ROTC

c. Architecture and Design

d. Art

e. Business

f. Music

g. I am not a member of a living learning community

1. You have made friends with other students because of your involvement in the living learning community.

1. Strongly disagree 2. Somewhat disagree 3. Neither disagree nor agree 4. Somewhat agree 5. Strongly agree

2. You have had informal interactions with your living learning community resident assistant.

1. Strongly disagree 2. Somewhat disagree 3. Neither disagree nor agree 4. Somewhat agree 5. Strongly agree

3. You have had informal interactions with your living learning community coordinator.

1. Strongly disagree 2. Somewhat disagree 3. Neither disagree nor agree 4. Somewhat agree 5. Strongly agree

4. You have had informal interactions with a faculty member (aside from your living learning community coordinator) because of your experience in your living learning community.

1. Strongly disagree 2. Somewhat disagree 3. Neither disagree nor agree 4. Somewhat agree 5. Strongly agree

5. You have had informal interactions with an academic staff member (aside from your living learning community coordinator) because of your experience in your living learning community.

1. Strongly disagree 2. Somewhat disagree 3. Neither disagree nor agree 4. Somewhat agree 5. Strongly agree

6. Your living learning community has written goals and objectives.

1. Strongly disagree 2. Somewhat disagree 3. Neither disagree nor agree 4. Somewhat agree 5. Strongly agree

7. Extra-curricular activities (e.g., hiking, sand volleyball, going to the movies, etc.) are provided by your living learning community.

1. Strongly disagree 2. Somewhat disagree 3. Neither disagree nor agree 4. Somewhat agree 5. Strongly agree

8. Co-cocurricular activities (e.g., a company visit within your field of study, a guest teacher to help with study preparation for an examination) are provided by your living learning community.

1. Strongly disagree 2. Somewhat disagree 3. Neither disagree nor agree 4. Somewhat agree 5. Strongly agree

9. You are being provided the support needed to be a successful student by your living learning community coordinator.

1. Strongly disagree 2. Somewhat disagree 3. Neither disagree nor agree 4. Somewhat agree 5. Strongly agree

10. You are being provided the support needed to be a successful student by University Housing staff members affiliated with your living learning community.

1. Strongly disagree 2. Somewhat disagree 3. Neither disagree nor agree 4. Somewhat agree 5. Strongly agree

11. You live alongside other students in a common residence hall from your living learning community.

1. Strongly disagree 2. Somewhat disagree 3. Neither disagree nor agree 4. Somewhat agree 5. Strongly agree

12. You are taking a freshman course at the University of Arkansas (e.g., WCOB 1111, UNIV 1001, etc.).

1. Strongly disagree 2. Somewhat disagree 3. Neither disagree nor agree 4. Somewhat agree 5. Strongly agree

13. You are taking a freshman course at the University of Arkansas (e.g., WCOB 1111, UNIV 1001, etc.) with other students in your living learning community.

1. Strongly disagree 2. Somewhat disagree 3. Neither disagree nor agree 4. Somewhat agree 5. Strongly agree

14. You take other similar courses together with students in your living learning community aside from a freshman course (e.g., WCOB 1111, UNIV 1001, etc.).

1. Strongly disagree 2. Somewhat disagree 3. Neither disagree nor agree 4. Somewhat agree 5. Strongly agree

15. You are taking a course associated with your living learning community in which you do not receive credit (e.g., UNIV 1200).

1. Strongly disagree 2. Somewhat disagree 3. Neither disagree nor agree 4. Somewhat agree 5. Strongly agree

16. You are involved in study groups because of your living learning community.

1. Strongly disagree 2. Somewhat disagree 3. Neither disagree nor agree 4. Somewhat agree 5. Strongly agree

17. You are involved in K-12 outreach events because of your living learning community.

1. Strongly disagree 2. Somewhat disagree 3. Neither disagree nor agree 4. Somewhat agree 5. Strongly agree

18. You are involved in career workshops because of your living learning community.

1. Strongly disagree 2. Somewhat disagree 3. Neither disagree nor agree 4. Somewhat agree 5. Strongly agree

19. You visit work settings because of your living learning community.

1. Strongly disagree 2. Somewhat disagree 3. Neither disagree nor agree 4. Somewhat agree 5. Strongly agree

20. You participate in theme related activities because of your living learning community.

1. Strongly disagree 2. Somewhat disagree 3. Neither disagree nor agree 4. Somewhat agree 5. Strongly agree

21. The amount of interactions with your peers within the living learning community met your expectations.

1. Significantly less than expected 2. Less than expected 3. Met expectations 4. More than expected 5. Significantly more than expected

22. The amount of informal communication with your living learning community coordinator met your expectations.

1. Significantly less than expected 2. Less than expected 3. Met expectations 4. More than expected 5. Significantly more than expected

23. The amount of informal communication with your living learning community resident assistant met your expectations.

1. Significantly less than expected 2. Less than expected 3. Met expectations 4. More than expected 5. Significantly more than expected

24. The amount of extra-curricular activities (e.g., hiking, sand volleyball, going to the movies, etc.) within your living learning community met your expectations.

1. Significantly less than expected 2. Less than expected 3. Met expectations 4. More than expected 5. Significantly more than expected

25. The amount of co-curricular activities (e.g., company visits within your field of study, a guest teacher to help with study preparation for an examination, etc.) with your living learning community met your expectations.

1. Significantly less than expected 2. Less than expected 3. Met expectations 4. More than expected 5. Significantly more than expected

26. The amount of support from your living learning community coordinator met your expectations.

1. Significantly less than expected 2. Less than expected 3. Met expectations 4. More than expected 5. Significantly more than expected

27. The amount of support from your living learning community resident assistant met your expectations.

1. Significantly less than expected 2. Less than expected 3. Met expectations 4. More than expected 5. Significantly more than expected

28. What gender do you align with the most?

a. Male

b. Female

c. Other

29. Are you the first person in your family to go to college (e.g., are you a first-generation student)?

a. Yes

b. No

30. Does your family have a combined income that is less than $30,000 per year?

a. Yes

b. No

c. Unsure

31. What do you consider your sexuality?

a. Heterosexual

b. Sexual minority (lesbian, gay, bisexual, transsexual, etc.)

c. Prefer not to answer

32. Do you have a disability (e.g., ADHD, dyslexia, depression, anxiety, etc.)?

a. Yes

b. No

33. If you have a disability, are you receiving accommodations (e.g., extended time on tests, note taking assistance, etc.)?

a. Yes

b. No

c. I do not have a disability

34. What ethnicity do you align with (check all that apply)?

a. Asian or Pacific Islander

b. Black

c. Latinx

d. Native American

e. White

f. Other

g. Multiple ethnicities