

A First Year to Write Home About: A Quantitative Study of First Year Housing Environment and First Year University Experience

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Abstract

The purpose of this quantitative study is to explore the relationship between where a student lives during their first year of university, and their overall first year experience. To determine a positive or negative overall experience from the participants, four distinct variables were analysed. These variables include academic achievement; stress and affect; sense of belonging and involvement; and, social relationships. The theoretical framework used for this study is the social structure and personality (SSP) theory. This social psychological lens is used to analyse and interpret the findings. The data was collected by administering a McMaster University Research Ethics Board (MREB) approved semi-structured, anonymous online survey to McMaster University students (n=100). The sample consisted of 66% on-campus and 34% off-campus participants. Some of our findings suggest a connection between the housing environment and the overall university experience. Academic achievement was found to be the least impactful variable on overall experience for both on and off campus participants, and social relationships were the most significant in terms of first year experience. Overall, the majority of our participants stated that housing environment did have an influence on their first-year university experience (whether good or bad) based on the variables studied.

Introduction

Topic of Study

For many people, the transition from high school to university life is one that is filled with anxiety and change. Approaching this new stage in life can open new opportunities and experiences for the future. The first year of university can set the tone for the rest of the years that follow and there are many components that contribute to that experience. The topic of study we researched is the relationship between where a student lives and their overall university experience during their first year of university. This study focuses on McMaster University students who have completed their first year of an undergraduate degree. The three main locations that were analyzed were on-campus university residences, off-campus homes less than 8 kilometers away, and off-campus homes greater than 8 kilometers away. These variables will be classified as “housing environment categories” for the remainder of the research study. These locations will then

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be linked to aspects that impact the university experience which are broken down into four categories: academic achievement, stress and affect, sense of belonging and involvement, and social relationships. Our goal was to explore and understand the connection between living situations and the first year university experience of McMaster undergraduate students.

The social psychological context for the current study was to try and gain a better understanding of university culture in terms of individual and social aspects. Our goal was to try and understand how broader social structures (i.e. university and residence) impact the individual student. This topic was of interest to us because there has been an increased awareness regarding university culture and how it can impact those that are experiencing it first-hand. University is an influential stage of life for many individuals and it is important to understand the broader implications this milestone can have on a person's psychological and social experience.

Research Question

Throughout the course of our research the primary focus has been to study the relationship between where a student lives during their first year of university, and their overall first year experience. The research for this study was conducted solely at McMaster University, with the expectation that potential correlations may be applied or adapted to other post-secondary institutions in the future. Due to the nature of the research topic, only students enrolled in an undergraduate program who have completed a full first year of university have been included. To ensure this, we have only sampled responses from students in their second year of study or higher. Participants were asked a series of questions regarding where they lived in first year, as well as how certain variables of their overall experience were impacted or experienced as a result. The concept of "overall experience" remains a subjective one, understood primarily through the lived experience of the individual. Therefore, we have outlined four distinct variables to quantify the criteria we used in determining a positive or negative overall experience.

The first variable outlined in our study focuses on the academic achievement of students while in their first year. For the purposes of this research, academic achievement is not quantified by grades, but by the personal satisfaction an individual has regarding their academic career. The interest lies in whether a student feels content or disappointed in their performance on assignments, exams, and their ability to keep up with course work. By using satisfaction rather than grades, we have allowed students to be reflective and give personal insights regarding their marks. Utilizing this method has presented us with more accurate data as well as a flexible definition of academic success. This avoids any unnecessary discomfort on the part of the participant who may not be willing to share specific details regarding their marks. This also allows students to accurately have their voice heard through our research project, increasing the benefits to themselves.

The second defined variable of overall experience is that of affect and stress levels. Within this category, our study focused on topics of coping strategies and homesickness that contribute to both the positive and negative emotions experienced by first-year students. With the introduction to university life being such a significant transition, the emotional responses and stability of students play an important role. This provides a rich understanding about which aspects of housing environments have the strongest impact on participants. Affect, meaning the feelings, emotions and moods one experiences at

any given time is one of the main contributors to an individual's satisfaction with university. Being that emotional regulation is often impacted by a living environment, it was necessary that this factor be included in the research to fully understand the relationship between these two variables.

Another important variable within the research is the sense of belonging and involvement first-year students feel attributed to McMaster University. The connection an individual has to a particular campus culture is the main feature under observation within this category. Inclusion of extracurricular clubs, as well as the feeling of "belonging" within the university atmosphere had to be considered as it is a primary influence of social identity and self-esteem of participants. In regard to this factor, we were interested in understanding the correlation between the sense of belonging students who live on-campus feel, and if it drastically differs from those that live off-campus in the surrounding area.

The final variable used to determine quality of experience is that of the social relationships and ties an individual creates, maintains, and values while in their first year of university. We have hypothesized that connections individuals make with others will heavily influence social roles, norms, and sense of self. For this reason, it was critical to include these social networks when evaluating how a living environment can increase or decrease the means in which relationships are made. Determining the social ties a student has, and how those ties are changed based on where they reside helped to provide an essential understanding of the overall university experience.

The selection of this particular research question came from an early group discussion about our own personal experiences of first year. Some of us felt that first year was an amazing experience and helped to set the tone for the remainder of our university career, while others expressed how difficult and mentally straining it was. Not only was our university experience significantly different, but our housing environments at the time also varied remarkably. These dramatically different experiences brought to light the question of whether place of residence changes how one feels about their first year. We also commented on how this seems to be a question not often asked in research studies surrounding university. We believe that the focus of our study has not only provided important insights into university housing options and the impact on students but has also drawn some interesting findings for our own personal experiences as well.

Purpose of Research

The chosen phenomenon of our study was to both understand and identify whether or not where students live would affect their overall university experience in their first year. Throughout the research, we sought to distinguish the ways in which different categories of housing environments affected specific factors of the first year university experience. Based on our assumption that the choice of residence is such a critical step in a student's transition to university life, this problem of focus was both extremely relevant and insightful for future students and post-secondary institutions alike.

The purpose of this research presents post-secondary institutions (in this case, McMaster University), with the knowledge surrounding how a student's place of residence impacts their first-year experience. This study has posed significantly influential research for university administration as it has helped determine if there is a "best" place to live in the first year. With this knowledge, universities could adapt the housing opportunities

available for first-year students in hopes of providing future students the best chances for an optimal university experience. Furthermore, this research may also help new students consider alternative housing options without feeling pressured to live in a specific location. By understanding the relationship between the place where one resides and overall experience at this particular university, this research helps increase the opportunities students have to enjoy their first year and make a smooth transition.

Overview of Sections

The following research study being presented is broken down into six distinct sections. The first section contains a review of literature that has been previously written surrounding the current topic. The literature is organized based on each of the current studies variables (i.e. academic achievement, stress and affect, sense of belonging and involvement, and social relationships). Following this section is a discussion of the theoretical framework that was used for the current study. Key aspects of the social psychological theory of social structure and personality (SSP) that are related to the study will be discussed. These include the proximity, components, and psychology principles of SSP. In the section that follows, our methodological approach will be explained in detail. Aspects of this section include our research methods themselves, the research process, any ethical issues and potential challenges, as well as our data analysis and timeline used for the entirety of the research study. After the methodology section, the results of the study will be outlined through the subsequent sections split into demographics, analysis of each variable, and major correlations. Second to last, we have included a discussion section, where the results of the research study will be analyzed and interpreted through the previously mentioned theoretical framework and literature presented. In addition, there will be a discussion of the broader significance that the current research study has in this section as well. Lastly, the final section of the paper will include a general summary of the research, a discussion of limitations and significant insights the results may hold, as well as final thoughts and acknowledgments we have developed regarding the entire research study process.

Literature Review

Our study will address student housing in relation to the first-year university experience which is conceptualized by four main factors. We have chosen to study academic achievement and satisfaction, affect and stress, sense of belonging and involvement, and social relationships as the four factors that make up a university experience. Using these four guiding principles, we will be able to categorize the satisfaction of first-year students. We will specifically be looking at how where one lives affects these factors and whether or not they are correlated. To get a basis of these understandings, we will be researching the literature revolving around the university experience and how previous research has examined these four factors. We will first look at how other authors have discussed these themes, then look at the factors that affect each of our variables. According to the research, we will discuss the causality between where a student lives and the effects on our four themes. We will also explore the limitations of the existing research and provide analysis of where the current research is lacking.

College and University Housing

Some research has already been done on the different effects that housing can have on the student experience. Recent research has found that since the mid-2000s, a greater emphasis has been placed on housing for college students and how it can be improved. This is partly due to the increased enrollment rates in post-secondary education compared to previous periods of time (Moore, Carswell, Worthy & Nielsen, 2019). Moore et al. (2019), suggest that studying college housing is important because it can be an indicator of students' well-being, mental health, future household happiness, and adaptation to future living environments. Although this study was limited by low response rates, they argue that studies such as theirs are important in creating more knowledge surrounding the benefits of different kinds of housing, both for students and housing providers (Moore et al., 2019). They also suggest that student housing has benefits on the overall college experience as well as the adjustment made in transitioning to the college experience (Moore et al., 2019).

Related to this transition, existing research has looked into the effect that living independently of one's parents has on the student experience. The transition to living independently from parents is positively related to increased feelings of depression, such as homesickness, insecurity, and loneliness (De Coninck, Matthijs & Luyten, 2019). Therefore, it is important to study how different student housing options affect these students.

There are clear differences in student experience between those who live on-campus and those who live off-campus. For example, living on-campus has been found to provide higher levels of satisfaction with the college experience rather than living off-campus (Li, Sheely, & Whalen, 2005). Dining plans, leadership opportunities, and locations close to campus foster social integration as well as involvement between peers and faculty. These factors can also bring a greater sense of community and increase the chances that students will return to live on campus in following years (Li et al., 2005).

Living on-campus is more often preferred by students who value support from staff and who want to make friends quickly (Wode, 2018). Living on-campus may provide students with a "typical student" status which can decrease negative effects of othering (Holdsworth, 2006). The concept of othering and its effect on first-year students will be further developed in the discussion of belongingness and involvement.

Living off-campus has its own benefits, including being more affordable for certain students (Hendrix, 2014). Some students have chosen to live off-campus in order to have more personal space and choice, to have more freedom, to make an investment, and to have more of a "homey" feeling (Hendrix, 2014; Maldonado, 2018). Living off-campus is often preferred by students who value staying at their home over school breaks, having private rooms and bathrooms, and cooking their own food (Wode, 2018).

Academic Achievement and Satisfaction

Previous studies have looked into which factors influence students' academic achievement. Academic achievement is important to the overall student experience due to its being a goal of education, but also because academic achievement is closely linked with well-being and satisfaction with life. In their study of 66 first-year university students, Wilcox and Nordstokke (2019) found that academic satisfaction, together with school

connectedness contributed to 49% of the variance in satisfaction with life. Conversely, 43% of the variance in self-reported academic achievement was due to college well-being (Wilcox & Nordstokke, 2019). Students' subjective well-being has been found to strongly predict academic performance as well as dropout rates among first-year students (De Coninck et al., 2019), indicating that if students' living arrangements influence their well-being it could in turn influence their likelihood of staying in school and doing well.

Previous studies have found mixed results on the effect living on or off-campus has on academics (Turley & Wodtke, 2010). Research has found that living on-campus can improve students' chances of staying in school and finishing their degree (Astin, 1984; Muslim, Karim & Abdullah, 2012). This relationship could be explained by the idea that the university residence forms an extension of the classroom. Living in residence could provide students with more opportunities to study together with their peers as well as students from different faculties and learn from them (Pokorny, Holley & Kane, 2017). Turley and Wodtke (2010) studied a sample of 2,100 students across 372 academic institutions and found that among students who live on-campus, there was no significant variability between different types of university residences.

However, students who live off-campus may do better than students living on-campus since they have more focus on academic achievement (Pokorny et al., 2017). Students living off-campus may not experience as much social development as those living on-campus, however, social development has been found to not be necessary for greater academic achievement (Turley & Wodtke, 2010; Pokorny et al., 2017).

Furthermore, other factors have also been found to influence academic achievement. Turley and Wodtke (2010) propose that school involvement and academic achievement are correlated, although the correlation is not perfectly clear. Findings by Astin (1984) seem to support this point, showing that students who participate in social or sporting clubs are less likely to drop out of school.

Personal differences between students also account for variance in academic achievement. Students with high academic self-efficacy have greater academic achievement due to their higher expectations and goals, as well as their tendency to see work as a challenge rather than a threat (Wilcox & Nordstokke, 2019). High academic achievement also lends itself to high satisfaction within a given program (Wilcox & Nordstokke, 2019). Individual affect and mood have also been found to influence academic achievement. Wilcox and Nordstokke (2019) found that depression and anxiety especially predict low GPA and achievement. Emotional exhaustion includes feelings of depression, as well as the feeling that one does not have any emotional resources left (Li, Han, Wang, Sun & Cheng, 2018). This exhaustion contributes to both lower satisfaction with life and academic achievement (Li et al., 2018). Similarly, the opposite is also argued to be true. Having a high self-esteem has been found to be positively related to academic achievement (Li et al., 2018).

Affect and Stress

More research has sought to understand how factors such as emotional well-being, depression, anxiety, and exhaustion affect the first-year experience. There has not been a significant amount of research done regarding differing levels of stress or affect based on living arrangements. However, the subjective well-being of students, especially during their first year has received considerable attention. Subjective well-being and life

satisfaction are two ideas often conceptualized in research as a way to study a rather abstract idea of happiness. "Subjective well-being, or happiness, is most often defined as high levels of positive affect, low levels of negative affect, and high levels of satisfaction with life" (Wilcox & Nordstokke, 2019, p.105). In opposition, stress comes from outside stimuli or circumstances combined with an individual's perceived ability to cope with them and their subsequent reactions (Ross, Niebling & Heckert, 1999).

Undergraduate students involved in an Australian study reported distress at rates almost tripled those of the general population (Stallman, 2010) and Wilcox and Nordstokke (2019) found that almost one quarter of students with one mental disorder also screened positively for another. Ross et al. (1999) suggest that this is in part due to the fact that undergraduate students face continuous evaluation. Due to the nature of the education system, students have multiple quizzes, papers, and tests they are taking and being graded. This amount of constant evaluation is atypical for the general population and could account for the higher levels of distress among students (Ross et al., 1999). Students also frequently reference interpersonal conflict, self-esteem problems, and struggles with money as causes for their distress (Ross et al., 1999). Undergraduate students face many daily hassles associated with the transition to post-secondary education which contribute to their high stress and low affect. Daily hassles are more frequently reported as reason for stress than major life events (Ross et al., 1999). "Some of these include change in sleeping and eating habits, vacations or breaks, increased workload, and new responsibilities" (Ross et al., 1999, p.105).

Some research has looked at students' stress by studying the transition to university and the effect this transition has on their emotional affect. Ross et al. (1999) found that among all students they studied, first-years scored the highest in chronic stress, showing that first-year students especially suffer. This could be due to the many changes that these students must adjust to. We assume that living on or off-campus may aid or hinder this transition in different ways, leading to higher or lower levels of stress among first-year students. One suggestion for the higher rates of stress among first-year students is that a student's attachment style will predict the way that they experience this transition (Ames et al., 2011). In a Canadian study by Ames et al. (2011) researchers found that securely attached participants experienced a much more positive transition than those with preoccupied or fearful attachment styles. Individuals with preoccupied or fearful attachment experienced greater fear of failure, anxiety, and stress (Ames et al., 2011). The study also found that these experiences could be improved with group facilitation (Ames et al., 2011), pointing to the importance of studying social relationships and belonging in our study alongside our other variables. This study provides insight into the way that first-year students experience stress in their transition to university. However, it is limited by a small sample size and lack of analysis of gender differences. Future research on attachment style and group facilitation should aim to study larger populations and the effect of gender on these findings.

There are different ways in which these high levels of stress and low affect can be helped and prevented. Various research has found that having high self-esteem helps individuals protect themselves from outside stressors. Higher self-esteem affects the individual's perception about how capable they are to control and overcome difficulties in a positive way (Li et al., 2018). Another way in which an individual's psychological state

can be improved is through social support. Having a supportive social community surrounding an individual can help them cope with stressors and feelings of depression (Li et al., 2018). We hypothesize that differing levels of social support will exist among different living arrangements, so it is important to understand how social support improves students' subjective well-being.

Belongingness and Social Integration

Throughout most of the literature on first-year university students, there appeared to be an emphasis on the importance of being part of the university culture. This could be due to a variety of factors but most of the research suggests that it is due to the correlation of social integration and dropout rates. As previously discussed, in regards to academic achievement, a longitudinal study conducted by Astin (1984) at the University of California, determined that those who integrated themselves into university culture through clubs and sports teams were less likely to drop out. The author discussed that those who felt like they were part of something more and belonged somewhere, were less likely to want to drop out of university (Astin, 1984). With this information, we can frame our understanding of the importance of a first-year student feeling as though they belong to the university culture.

Aside from housing environments, there are other factors that contribute to one's sense of belonging. While there is little research, we thought it would be important to touch on the implications of race and ethnicity when it comes to belonging and social integration as a whole. The way in which different cultures accept living situations and university expectations, both play an important role in the first-year students' sense of belonging (Pokorny et al., 2017). For students that come from a Caucasian family, it is understood to be more acceptable to live alone and be more involved with peers due to cultural understandings of university as more of an experience (Pokorny et al., 2017). Due to the previous studies on race and ethnicity, we felt it was important to include a demographic question regarding race and ethnicity in our research. While our study did not focus on how race and ethnicity affect where you live, it is important to mention as a thought for future research.

When coming to university, many students go through a transition from being a teenager to becoming the "Typical Student" (Holdsworth, 2006). For many, this move becomes a substantial part of their identity since this transition is unfamiliar, making it important for the new student to "fit in" with this new environment (Holdsworth, 2006). The "Typical Student", as conceptualized by Holdsworth, is determined to be a stereotypical university student involving stress, binge-drinking, and being in debt (Holdsworth, 2006). The way they view themselves compared to the other students allows them to take on this new identity (Holdsworth, 2006). As the new student continues to take on this identity, the more likely they are to be satisfied with their sense of belonging in the university (Holdsworth, 2006). However, creating this new sense of self is not necessarily innate. The research revolving around this identity construction discovered that those who lived at home with their parents or guardians were less likely to adopt the "Typical Student" identity (Holdsworth, 2006). This is due to the constant shift from student identity, to the identity they would have had before coming to university (Pokorney et al., 2016). With this continual shift, the students that reside at home find it more difficult to maintain this identity as compared to those who live on-campus (Pokorny et al., 2017). Those who live on-

campus sustain conscious discontinuity, which means they are able to maintain their student identity due to their isolation from their former environment and full immersion into the new culture (Pokorny et al., 2017). If those that commute are living at home, they juggle their former identity and their familial ties more than those who are living in university residences (Pokorny et al., 2017).

Due to this lack of identity adaptation, those who live at home may also be subjected to othering (Holdsworth, 2016). In this context, othering is defined as a differentiation between those who live on-campus versus those who commute (Holdsworth, 2006). In many cases when making judgements, there is a focus on the class that one belongs to that creates the othering. However, when coming to university, there is less of an impact of class on people's identities (Holdsworth, 2016). As a result of this, the way students differentiate themselves shifts to where they live (Holdsworth, 2016). Those who live off-campus are not involved in the residence life and are thought to not fully be part of the university experience, making them lack social integration (Holdsworth, 2016). This then makes them "othered" and not integrated into the same categories as their non-commuting peers (Holdsworth, 2016). With that said, the study done by Holdsworth utilizes questions and discussions about parental socio-economic status and due to the sensitivity of this topic for some participants, this may limit the depth of the data, if some students choose to not answer fully if uncomfortable.

As mentioned previously, many students have this ideal of what the university culture will be like, thus affecting their experiences. A study done on 3 different Canadian Universities found that first-year binge drinkers perceived the university atmosphere to promote alcohol misuse before even entering university (Henderson, Thompson, Hudson, Dobson, Chen, & Stewart, 2018). In this way, student's overall perception of meeting new people and relaxing oftentimes required engagement in binge-drinking (Henderson et al., 2018). Meaning that the feeling of social belongingness was also strongly correlated with higher alcohol misuse (Henderson et al., 2018). But with this abuse of alcohol, they are also statistically more likely to have trouble with their mental health (Henderson et al., 2018).

More specifically for our research, we found that studies also show that those who live on-campus are more likely to engage in these types of binge-drinking environments than those who live off-campus, especially in comparison to those that live with their parents (Henderson et al., 2018). While the students on-campus may be in more of a social environment, this type of risky-behaviour is strongly associated with decreased reported mental health (Henderson et al., 2018). This implies that those who live on-campus will be more likely to report stronger social ties but also prove to have lowered mental health. With that said, this information is limited to self-report variables such as self-report bias which may impact the validity of the information provided.

Social Relationships

It is also imperative to look at the effect of social relations on the first-year's overall satisfaction. Throughout the literature, authors refer to social relationships as the frequent and casual interactions with others (Wilcox & Nordstokke, 2019). The frequency and quality of these social ties are correlated with how the student ranks their satisfaction with these relationships (Wilcox & Nordstokke, 2019).

Most of the research focuses on peer or classmate relationships, but there are significant findings that suggest student relationships with faculty members can determine satisfaction (Turley & Wodtke, 2010). It has been proven that students who have a strong relationship with their professors are more likely to rank higher overall satisfaction (Turley & Wodtke, 2010). They also tend to report higher levels of integration into the university compared to their classmates that may not have the same relationship (Muslim et al., 2012). Further Canadian research stated that those who lived off-campus benefitted more mentally when there was a strong perception of faculty caring for them (Henderson et al., 2018). However, this should also be considered in the gendered context due to the research stating that women are more likely to engage with faculty in comparison to men (Muslim et al., 2012). These findings illustrate that women generally want to strengthen relationships with faculty and other peers more than men (Muslim et al., 2012). Furthermore, the research states that those who identify as Caucasian are more likely to seek out these social relationships compared to racial minorities (Turley & Wodtke, 2010). The research also suggests that those who identify as a minority status are more likely to focus on their academics rather than creating relational ties (Turley & Wodtke, 2010). In our research, we did not explore the case of student-professor relationships or gendered differences, but these factors could be useful for future research on the subject.

However, an important limitation to note on this particular study done by Turley & Wodtke (2010) is the lack of distinction between those living at home with their parents versus living off-campus with friends. This could skew the data due to those who live with friends off-campus may find it easier to create relationships with peers due to already living with friends. While on the other hand, students who live with their parents may not find it as easy to build social relationships.

To further examine the correlation of housing and social ties, there must be further analysis into where the majority of these relationships are formed. The research has shown that those who joined sports or clubs ranked the quality of their social relationships higher than those who did not engage in any extracurriculars (Astin, 1984). As previously mentioned regarding our variable of belongingness, first-years who engage in these types of activities are also those who live on-campus in residences (Holdsworth, 2006). In this way, those who commute are less likely to create meaningful relationships resulting in them having a lower satisfaction rating of social relationships (Astin, 1984; Holdsworth, 2006). This does not necessarily mean that the individuals' social relationships are exclusively found on these sports teams. It has been proven that the majority of students identify most of their closest friends as being from the residence they live in (Turley & Wodtke, 2010). For those who live on-campus, students consider where they live as a social setting, while those who commute will consider where they live as simply a place to reside (Turley & Wodtke, 2010).

With that said, there is conclusive Canadian research that found that those who maintain membership in a fraternity or sorority have been shown to have a lower sense of belonging (Henderson, Thompson, Hudson, Dobson, Chen, & Stewart, 2018). This could be contradictory to Turley & Wodtke's (2010) understanding of those who live on-campus believing that where they live is their main source of social interaction and thus their place of belonging. The contradiction is apparent since living in a sorority or fraternity is an extremely high level of social interaction yet, residents find that they do not belong as much as those who live simply in an on-campus residence (Henderson et al., 2018).

As a result of this, there could be further research in understanding why high levels of exposure to social settings decreases the sense of belonging for places like fraternities or sororities.

Additionally, a study done at a Canadian University discussed the perceptions of others and the strength of the effect on mental wellbeing in their first year. The study found that those who are highly impacted by their peers (conceptualized as Social Prescribed Perfectionism) would have a lower level of friendship intimacy and therefore increase mental distress throughout their first year (Mackinnon, Sherry, Pratt & Smith, 2014). When Socially Prescribed Perfectionists discussed making friendships, they were more inclined to avoid intimate friendships due to fear of not meeting perceived expectations of others (Mackinnon et al., 2014). This could indicate that the university friendships may not be solely affected by the housing situation, but more based on the impact of personal personality profiles. Those who are impacted more strongly by peers, may not feel as if they can achieve these social relationships that are expected to be made in first year which in turn could potentially affect their university experience.

It is also important to note the potential lack of validity in this study due to self-report bias. The reliance on self-report data could allow for participants to answer the questions in a way that is not accurate in hopes of making themselves sound better. The inability to fully see and understand how participants actually view themselves could potentially impact the data. With that said, it could be beneficial to our study in guiding our understanding of participants' perceptions of themselves and their personality profiles that may affect the data.

Literature Review Summary

In summary, the existing research literature has examined many of the same variables in the university experience as we have studied. Academic achievement has been found to be an important factor among students, related to well-being as well as dropout rates. However, there is little agreement as to the effects of living arrangement on academic achievement. Research also supports our idea that transitioning to university involves considerable amounts of stress and lowered affect, especially among first-year students. Literature discussing belongingness points to the importance of students becoming involved in their university culture. This involvement is important due to the way it influences academic success, creates a continuous identity, and lowers the negative effects of "othering". Social relationships have been found to be an important part of the student experience, formed and maintained in many different ways. Research has also been done on the differences between living on and off residence, and the effect of the housing environment. However, most studies have not researched the direct effects of the housing environment on these variables. Though there is significant research on each factor on its own, our research fills a gap in the literature by studying these relationships.

Theory

Social Structure and Personality

The theoretical framework our research project uses is the Social Structure and Personality Theory (SSP). Within the literature, there is no agreed-upon history of SSP, however, some scholars say it originated in the 19th century from Emile Durkheim's sociological work on the 'individual' (Rohall, Milkie, & Lucas, 2014). Other literature states

that SSP branched off of Max Weber's work on how society affects an individual's "verstehen" or empathic understanding (Rohall et al., 2014). Additionally, James House and Robert Kohn discussed SSP in their research throughout the 1980s (DeLamater & Ward, 2006). SSP is described as a framework rather than a theoretical paradigm because it is not associated with a theoretical claim (Rohall et al., 2014). SSP is a macro theory, which looks at large scale issues and large-scale groups. A macro theory is relevant to our research as we examined how the large-scale structure of student housing affects the first year university experience (DeLamater & Ward, 2006). SSP focuses on the roles people occupy and how social forces influence their individual beliefs, behaviours, and life changes (Rohall et al., 2014). The theory looks at how large social networks (i.e. family, friends and coworkers), as well as social structure, (i.e. the community one lives in), affects an individual's feelings, attitudes and beliefs (Rohall et al., 2014).

Core Concepts of SSP

The three core concepts of SSP are social structure, personality and individual, and culture. Social structure can create a predictable pattern of behaviour that an individual can express (Rubinstein, 2004). Understanding social structure is significant to our research, as it allows us to have a framework to analyze whether or not living in residence can create a profile of behaviour among first-year students within the university experience. Personality refers to an individual's attitudes, beliefs, values, etc. (House, 1981). This is an important concept to have in our research because a sense of belonging and social relationships is often correlated with an individual's personality since individuals often choose their friends based on personality (House, 1992). Where one lives impacts the different people that one is exposed to. Culture refers to the cognitive values an individual should have in a given social structure, and how those values are internalized (Rohall et al., 2014). The two social structures we researched are where one lives and university; each of these structures has its own culture. Our research is an attempt to identify if the culture of where a first-year university student lives correlates to how they internalize their university experience.

Core Principles of SSP

SSP has three core principles: the components, proximity, and psychology principles. James House's components principle links different social structures and how they affect specific behaviours. This theory encourages researchers to look at what is happening behind large social structures (House 1981). The main elements in this theory are social norms, socioeconomic status, gender, social networks, and roles (Williams & Collins, 1995). Social norms are scripts used in interactions and reflect the values of the group in which the individual belongs (Merton, 1957). The community one lives in can reflect which scripts the individual uses in their interaction and can affect their sense of belonging (House, 1981). Social networks refer to the relationships between an individual and a group (House 1992). Roles relate to the position individuals hold in society, and how that changes the way they behave (Biddle, 1986). In our research, we examined if the location students live in changes how they see their role and if that affects how they behave in university. In our study, we did not look at socioeconomic status or gender, but the correlations we found could be used for further research.

The proximity principle looks at the effects of macro structures on individuals (House, 1981). It states that individuals within a certain proximity are linked due to having the same social experiences in their life (House, 1981). The longer a person spends within these macro structures, the more influence they have on the individual (House, 1986). Two essential elements that create similar experiences within social structures are social roles and relationships (Merton, 1957). In our research, we examined the number of clubs, sports teams, etc. students are involved in, and how they affect their university experience. Our research looks at different housing and the university experience. We hypothesized that if an individual is living on-campus, they have more access to the university, which in turn will have more influence on them. We aimed to discover any correlations between the macrostructure of where one is living and the experiences with regards to our four variables.

The last principle of SSP is the psychology principle which examines the biology of one's mental state, motives, and unconscious meanings concerning social situations (McLeod & Lively, 2003). Although this is an important aspect of SSP, for the purposes of this study we focused primarily on the first two principles. Our attention was mainly on the idea that where an individual spends most of their time changes their personality. Our research was interested in the correlations between responses of people who live on-campus, and those who commute in relation to our four university experience variables.

Self-Evaluation and SSP

Another concept within SSP that we will be looking at is the idea of self-evaluation. Three components of the theory that we will be looking at are mastery, mattering, and self-esteem. Mastery is the ability to control things in an individual's environment (Gecas, 1989). Mastery can refer to academic achievement on the grounds that if an individual has mastered their environment, they will believe they can master their courses academically (Gecas, 1989). Mattering refers to how much an individual feels they matter to others (Elliot, Kao, & Grant, 2004). Our research explores a sense of belonging to see if an individual feels they matter more in a given situation, and how connected they feel to their community. We are interested in whether healthy, long lasting relationships are more likely to be formed and maintained when an individual feels they matter. Self-esteem is a positive or negative evaluation of oneself (Rosenberg, 1986). A positive evaluation of oneself is essential in lowering stress levels, making relationships, academic achievement, and belonging (Rosenberg, Schooler & Schoenbach, 1989). Our research looked at the connection between living arrangements and how one evaluates oneself in regards to an individual's first year experience.

Theory Summary

In summary, the social structure and personality theory allowed us to gain information on our variables and the university experience. The components principle examines social structures and how they relate to a specific pattern of behaviour. This principle allowed us to draw conclusions if residence created a pattern of behaviour within on or off-campus participants. The proximity principle aided our research in determining whether living in close proximity to campus correlated to any of our research variables. The psychological principle allowed us to interpret a participant's personality in relation to the overall first-year university experience and our variables of the study. In addition, we

used the self-evaluation principle of SSP; mastery was important because it allowed us to find connections between where a participant lives, if they were able to master their environment, and if that affected their first-year experience. Therefore, SSP provided significant insight on each of our variables and supported a large amount of the findings in our study.

Methodology

Research Methodology

Through our search for the relationships between where a student lives and their overall university experience in their first year, we have used a quantitative approach, via an anonymous survey to answer this research question. All the participants' thoughts, feelings, and behaviours were assigned to numbers which allowed us to apply a statistical analysis of the variables and provide us with the opportunity to use a larger sample size (Rohall, Milkie, & Lucas, 2014). Doing an anonymous survey eliminates reactive effects that are common during qualitative surveys (Bryman & Bell, 2016). A reactive effect occurs when the researcher knows they are being observed and may result in atypical behaviour, therefore, the quantitative approach in this case may eliminate this bias and demonstrate more authentic answers (Bryman & Bell, 2016).

The type of survey we have conducted is a semi-structured questionnaire. This questionnaire consisted of 29 questions which included the Likert scale, multiple choice, demographic, drop-down and open-ended questions. We used non-probability sampling, meaning that we did not pre-select those who would receive the survey. Snowball and convenience sampling has likely occurred due to the fact that the survey may have been referred to by other participants who had previously taken the survey. A convenience sample demonstrates the idea that any available person that fits in a certain population will be included in the study (Rohall et al., 2014). A snowball sample may have occurred as other individuals could have shared information about the study with peers (or others), resulting in one large social circle or peer group being represented in our study (Rohall et al., 2014).

Steps in the Research Process

Ways in which we recruited participants to partake in our survey was by hanging posters in MSU approved locations, posting on various student-run Facebook pages, and emailing student-lead groups and organizations on-campus. The McMaster communities include Learning and Fun (LAF), Community Open Circle and Communications, and Multimedia Society. These groups are ideal as they include many students from various faculties at McMaster who are gaining volunteer experience. We were aware of these communities as our group member Erika Key's is the group facilitator for some groups and has been involved with these organizations throughout her university career. We used the recruitment scripts to appropriately reach out to these organizations. With Erika Key's connection to the group we recognized this as a clear conflict of interest. To eliminate this conflict of interest and manage this potential issue we had Aisha Syed who had no prior connection to these groups, recruit these potential participants. Therefore, Erika was not part of the recruitment process for any of these groups.

The recruitment poster demonstrates that we were looking to recruit participants for our study, it included the title of our study, and informed potential participants that those

involved would remain anonymous. The poster indicated an approximate time of 15 minutes to complete as well as Erika Keys' email address as the point of contact to obtain more information. We also included that participants must be 18 years of age or older, must be a McMaster undergraduate student, and have completed a full first year of university. The tear away tab at the bottom included an email and link to our survey. Lastly, the poster clearly stated that the project received ethics clearance. Once we received the McMaster Students Union stamp of approval, the poster was displayed throughout the main buildings around McMaster University. This was to ensure the sample of participants was inclusive to all faculties and programs.

The Facebook pages we reached out to for our survey to be posted on included: Spotted at Mac, McMaster Social Sciences Class of 2020, McMaster Social Science Class of 2021, Class of 2020- McMaster University- Officially Verified, Class of 2021- McMaster University- Officially Verified, McMaster Class of 2022- McMaster University- Officially Verified, McMaster Social Science Society, McMaster's Philosophy, Politics and Law (JPPL) Society, Off Campus 2020, Off Campus 2021, McMaster Engineering Class of 2021, McMaster Life Sciences Class of 2020, McMaster Life Science Class of 2020, McMaster Humanities 2020, McMaster Humanities 2022, and Class of 2020- DeGroot School of Business. This was done by emailing the admin of the Facebook webpage using the recruitment script for the holder of participants contract information as well as our letter of information for all imperative details. This covered a wide range of the McMaster community and was efficient based on the prevalence of social media in today's society.

Our quantitative method of data collection was that of an anonymous online survey hosted on the MREB approved website, LimeSurvey. This survey took approximately 15 minutes to complete and was structured using LimeSurvey, with computer responses. The survey included a letter of information providing the participants with the necessary information outlining the nature of our survey and the possible risks associated, giving them the opportunity to make an informed decision. The survey included an ending message thanking the participants for their responses, as well as the information for the McMaster student wellness center, in the case of participant distress as a result of the risks in the survey. The survey was a semi-structured questionnaire consisting of 29 questions, making use of question types such as the Likert scale, single choice, multiple choice, demographic, and open-ended questions. Erika Keys was in charge of monitoring the survey and closing it on February 13th, 2020 at 11:59 pm or when the sample size had reached 100 participants. After we had collected all of our data, we analyzed the results and documented our findings. We used frequency tables to demonstrate demographic findings for the number of participants on- versus off-campus, gender, faculty, ethnicity, current year at McMaster, and age. These demographics and their frequencies demonstrate how our sample was represented throughout the McMaster community. Bar graphs are also used to represent our data, presenting specific variables and how they correlate to the sample of our on versus off-campus participants. At this point a poster presentation was made documenting our topic of study, key variables, methods, qualitative quotations, demographics, significance, conclusions, and acknowledgements. Lastly, all the information was completed, analyzed, and documented within this final thesis research paper.

Ethical Issues

Firstly, it is important to note that our research received ethics approval by the McMaster University Research Ethics Board (MREB). To involve human participants in our research at McMaster University it is necessary to receive this approval. We completed this by filling out the form provided by MREB. The research was approved by the McMaster Research Ethics Board (MREB#: 0327, 2012 67). One of the main ethical issues we addressed was confidentiality and the participants' knowledge on the anonymity of our online survey (DeLamater, Myers, & Collet, 2015). The letter of information that was presented before the survey started outlined to participants that all data that we would receive would be kept in a password protected file. Once the analysis of the data was completed all data was destroyed. We also included that if the participant wished to remain anonymous, they must not like or share the survey on Facebook. This further ensured participants were aware of the ways they could take the initiative to remain anonymous.

Ethically it is important that consent is freely given and cannot be coerced (Bryan & Bell, 2016). Our terms of consent were outlined in the letter of information. Due to the nature of online surveys we assumed implied consent from our participants. This was done because of the inability to ask for a written or oral consent form. Therefore, we implied that the participants read the letter of information and consequently made an informed decision that they were comfortable with the conditions and wished to proceed. The step of pressing the submit button acted as their final indication that consent had been given to us. Additionally, during the online survey after the letter of information was presented, the very first question asked if the participant consented and wished to proceed (yes or no), further ensuring all participants understood the survey and consented to the conditions.

The type of questions we used were strategic in minimizing the risk of other ethical issues. An important concern with regards to ethics is the participants well-being (Bryman & Bell, 2016). This means that one's physical, mental, emotional, spiritual, social, and economic well-being must be respected (Bryman & Bell, 2016). Any question that may be anxiety producing or 'triggering' in any way was addressed with caution. One tactic included our demographic questions. These questions further guaranteed that our participants were above the age of 18 years old. With this in mind our questionnaire included open ended questions for topics such as gender and ethnicity. This was deemed necessary as it minimized the risk of being exclusive due to the complexity of the possible answers. These questions also included a 'prefer not to answer' option ensuring the participant had the ability to omit the question if it was a sensitive topic. Throughout our survey, participants had the option to omit specific questions they did not wish to answer. Due to the nature of the online survey, participants had the opportunity to leave the website at any time before clicking 'submit' and all previously completed data would be lost. This ensured that if a participant was feeling any type of distress or discomfort, they would have the option to opt out or skip that question. The anonymity of the survey provided further protection against this risk. Once the survey was completed, and when participants clicked 'submit', there was a thank you message that included the information for the McMaster Student Wellness Centre in hopes that if any participants were left feeling socially or psychologically affected, they would have access to support systems.

Our group experienced student to student peer conflicts of interest. This occurred through Facebook groups that we used to recruit participants, and also through online communities our group members were a part of. Additionally, communities such as Learning and Fun (LAF), Community open circles and communication and multimedia societies are institutions in which there are personal connections as Erika Keys is a facilitator. These issues were minimized by the letter of information clearly outlining our names and the fact that we are involved with the project. Therefore, anyone who was uncomfortable with this fact could opt out at any point. For the communities in which Erika Keys is involved as the facilitator, she was not involved in recruiting these potential participants. Rather, we had Aisha Syed, who had no connection to these institutions, reach out to these communities.

Data Analysis

We ensured that our questionnaire was designed with the process of data analysis in mind. For example, when determining the scales and variables we considered statistical techniques that would aid in our coding process. With our questionnaire it was necessary to prepare for missing data. This could be a result of questions being missed or skipped for personal reasons. In this case, we coded the missing data with another symbol (-). This symbol was not mistaken for information regarding determined variables and was not read by the computer as anything other than missing data (Bryman & Bell, 2016).

The three main types of variables we used when looking at relationships between categories included: nominal variables, ordinal variables, and interval/ratio variables (Bryman & Bell, 2016). The nominal variables are composed of categories with no relationship to one another, other than the fact that they are different. For example, when we asked for one's ethnicity in the questionnaire, there were multiple possibilities and no other kind of comparison was possible (Bryman & Bell, 2016). Ordinal variables are different categories that can be ranked and ordered (Bryman & Bell, 2016). This was discussed in our research as greater than and less than statements made about the categories (Bryman & Bell, 2016). Lastly, interval/ratio variables are used to demonstrate a unit of measurement that exists in regards to the differences between categories. This can be made identical across the range of categories (Bryman & Bell, 2016). We studied these potential correlations by using crosstabs on the Statistical Package for Social Science (SPSS). Crosstabs were used to analyse data on SPSS, these tests demonstrated how different variables corresponded to each other. This was beneficial in helping find correlations that assisted in answering our research question.

We conducted frequency tables to provide the number and percentage of individuals who belong to each category. This was an organized way to demonstrate our data and can be created for nominal variables, ordinal variables, and interval/ratio variables (Bryman & Bell, 2016). Our qualitative data was displayed through diagrams. We used bar graphs where the height of each bar represents the frequency or percentage of participants in each category.

During our data analysis, we planned to calculate the mean to find the average of all responses for a given question (Bryman & Bell, 2016). An important issue we anticipated and accounted for are outliers, as the mean is vulnerable to these occurrences (Bryman & Bell, 2016). One way this could be done is through measuring the standard deviation. The standard deviation is a measure of the variation between our variables and the mean

(Bryman & Bell, 2016). However, due to unforeseen circumstances we were unable to collect the data to be able to complete these types of analysis. In this case, the standard deviation would have outlined any outliers in our data that may influence the mean. Bivariate analysis demonstrated whether there is a relationship between any two variables (Bryman & Bell, 2016). We did the bivariate analysis by running crosstabs between the variables and the number of on versus off-campus participants.

We planned on accounting for the significant relationships throughout our discussion. The relevant correlations that would have been done provides a representation of the risk when taking a particular sample statistic to estimate a population characteristic (Bryman & Bell, 2016). This looks at tests of significance for measures of bivariate association (Bryman & Bell, 2016). However, due to unforeseen circumstances we were not able to test for statistical significance and chose instead to focus on the relevant relationships between the variables.

Methodology Summary

Overall, our quantitative study on where a student lives, and their overall university experience was studied using a semi-structured questionnaire. We used non-probability sampling and recognized the occurrence of both snowball and convenience sampling. We discussed potential conflicts of interest and used proper ethical responses to resolve these issues. Recruitment posters and letters of information were used when attempting to recruit potential participants. This ensured that everyone was informed on the nature of our study before consenting to participate. We assumed implied consent from our participants and supplied all essential information they needed to make the decision to proceed. We were strategic in minimizing the risks of our potential participants through the design of our questionnaire. Throughout the data analysis process, variables were calculated using frequencies and crosstabs on SPSS. We constructed tables and graphs to display data in an organized manner in order to support our findings and discussion. Relevant relationships were accounted for in our discussion to help facilitate our findings. Lastly, a detailed timeline was made to demonstrate the way we planned our work as a group to successfully complete this research in a timely and efficient manner.

Results

Demographics

We asked participants to answer questions on the following demographics: residence during first year (on- vs. off-campus), gender, faculty, ethnicity, current year enrolled at McMaster University and age. The sample size of this study is 100 McMaster University students (n=100).

Residence During First Year

The majority of the participants lived on-campus for the first year (66%) while the remainder lived off-campus (34%).

Figure 1: Frequency Chart – On- vs. Off-Campus

ON- VS. OFF-CAMPUS (during first year)	FREQUENCY
On-Campus	66
Off-Campus	34
	n=100

Gender

With regards to gender the majority of the participants were female (74%), followed by male (18%) and non-binary (1%).

Figure 2: Frequency Chart – Gender

GENDER	FREQUENCY
Female	74
Male	18
Non-binary	1
No Response	7
	n=100

Faculty

The participants came from a variety of faculties throughout the McMaster community, the majority came from Social Science (34%), followed by Science (18%), Humanities (14%), Engineering (11%), Commerce (8%), Life Sciences (3%), Health Science (3%), and Kinesiology (3%).

Figure 3: Frequency Chart – Faculty

FACULTY	FREQUENCY
Social Science	34
Science	18
Humanities	14
Engineering	11
Commerce	8
Life Science	3
Health Science	3
Kinesiology	3

No Response	6
	n=100

Ethnicity

The majority of the participants identified as Caucasian (46%), followed by South Asian (12%), Mixed Race (9%), European (8%), Asian (6%), Hispanic (4%), African (4%), and Indigenous (2%).

Figure 4: Frequency Chart – Ethnicity

ETHNICITY	FREQUENCY
Caucasian	46
South Asian	12
Mixed Race	9
European	8
Asian	6
Hispanic	4
African	4
Indigenous	2
No response	9
	n=100

Current Year at McMaster

The majority of our participants were in fourth year (42%), followed by third year (35%), second year (12%), and fifth year (5%).

Figure 5: Frequency Chart – Year at McMaster

YEAR	FREQUENCY
Fifth	5
Fourth	42
Third	35
Second	12
No Response	6
	n=100

Age

The age of the participants varied from ages 19-29. The majority of participants are 21 years old (43%), followed by 20 years old (29%), 19 years old (9%), 22 years old (8%), 24 years old (2%), 27 years old (1%), and 29 years old (1%).

Figure 6: Frequency Chart – Age Frequency

AGE	FREQUENCY
19	9
20	29
21	43
22	8
24	2
27	1
29	1
No Response	7
	n=100

In-Depth Analysis of Variables

Academic Achievement

Looking at the analysis of academics, there proved to be little difference in where one lived and academic achievement. With similar answers in ability to time manage, the results were scattered. 59% of on-campus and 67% of off-campus students reported being able to effectively manage their time. Where respondents lived seemed to have no implication on their academic achievement. The responses to satisfaction of academics were split for both on and off-campus with 45% of on-campus reporting satisfaction, and 32% reporting dissatisfaction comparatively to 50% of off-campus being satisfied and 32% reporting dissatisfied.

Stress and Affect

Overall, there was little difference in answers regarding stress and affect between on and off-campus students. Both seemed to agree that there was an increase in stress with 80% on-campus and 85% off-campus reporting the level of stress increased coming into their first year. Although as expected, there was a significant difference in levels of homesickness between on-campus and off-campus students. With 56% of on-campus residents reporting that they experienced homesickness, while only 18% of off-campus residents reported similar feelings. There was a slight difference in ability to cope with 64% of on-campus and only 48% of off-campus reporting that they were able to cope with the stress that came in first year. With that said, students both off and on-campus, found that their living arrangements affected their overall stress levels.

Sense of Belonging and Involvement

When looking at sense of belonging, the majority of off-campus students reported not being involved in extracurriculars with only 26% reporting that they joined a McMaster extracurricular in their first year. Comparatively, on-campus respondents were fairly even with 55% joining and 45% not joining any extracurriculars. Living on-campus also was strongly correlated to attending Welcome Week activities with 94% of on-campus residents reporting that they engaged in at least one Welcome Week activity while only 65% of off-campus students participated. Overall, both on-campus and off-campus agreed that where they lived in first year influenced their overall sense of involvement; 82% of off-campus and 68% of on-campus agreed to the apparent influence of housing.

Social Relationships

Overall the majority of both on-campus and off-campus found that where they lived in first year affected their overall social relationships. With on-campus having an 89% agreement rate and off-campus with a 94% agreement rate. When making new relationships, there was a significant difference in how off-campus students found making new social relationships in university, 53% found that they struggled making new relationships while only 27% of on-campus students found it difficult. In regard to maintenance of past relationships throughout their first year, there was no significant difference between on and off-campus, both had 62% of participants agreeing that they kept the same relationships that they had made before coming to university. Further, relating to relationships that participants had made during their first year, off-campus participants reported having lower satisfaction for both quality and quantity of relations in comparison to on-campus participants. Only 26% of off-campus residents were satisfied with the quantity of relationships, and only 32% reported being satisfied with the quality of their relationships. Comparatively, on-campus residents were more likely to agree that they were satisfied with quality (59% agreed) and quantity (50% agreed).

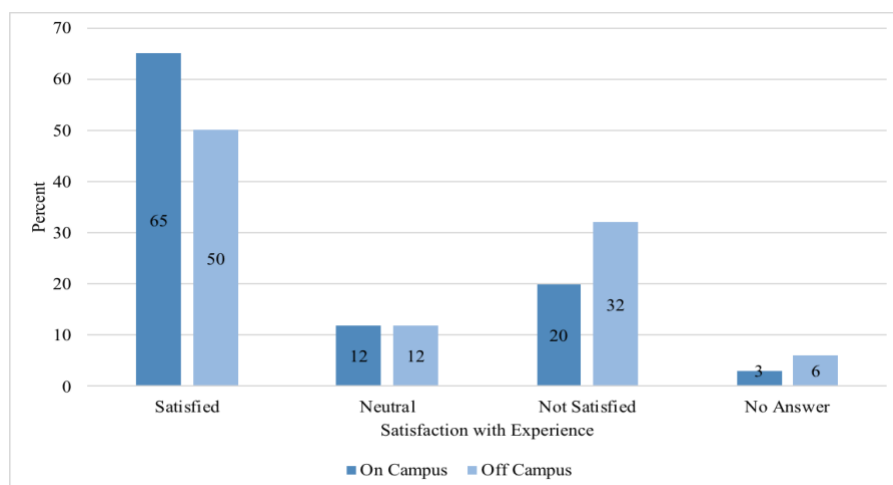
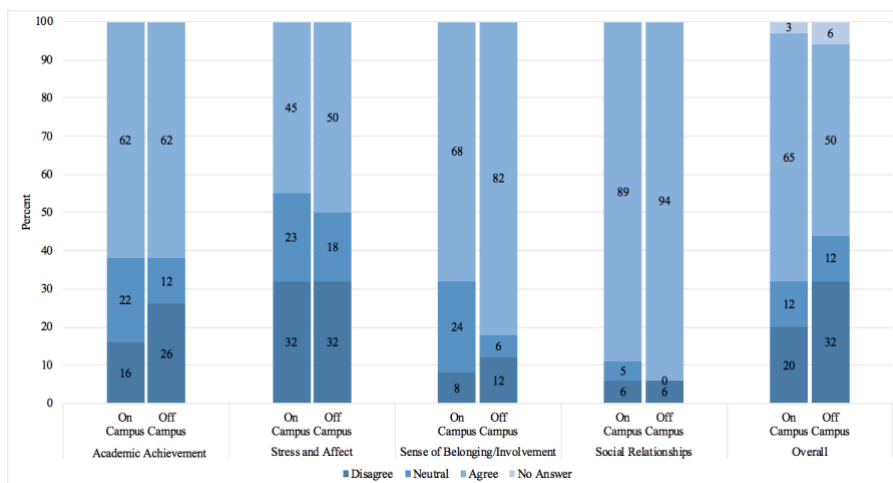
Major Relationships

The following charts display the most important relationships and results of our data as related to our research question. Figures with an asterisk (*) note that the data in the chart is displayed as a percentage in order to counteract the difference in on- and off-campus participation.

Our results (Figure 7) found that more on-campus students indicated they were satisfied with their overall first year experience than off-campus students. In addition, a larger portion of off-campus students indicated that they were not satisfied with their first-year experience. These findings suggest that overall, living on residence provides students with a better first year experience than living off-campus.

These findings (Figure 8) break down the university experience into our four variables and display the degree to which participants felt that their living arrangement influenced each variable. Most participants agreed that their living arrangement influenced all four of our main variables in the university experience. Regardless of being on- or off-campus, participants indicated that social relationships were the most influenced by their housing environment, while stress and affect proved to be the least influenced.

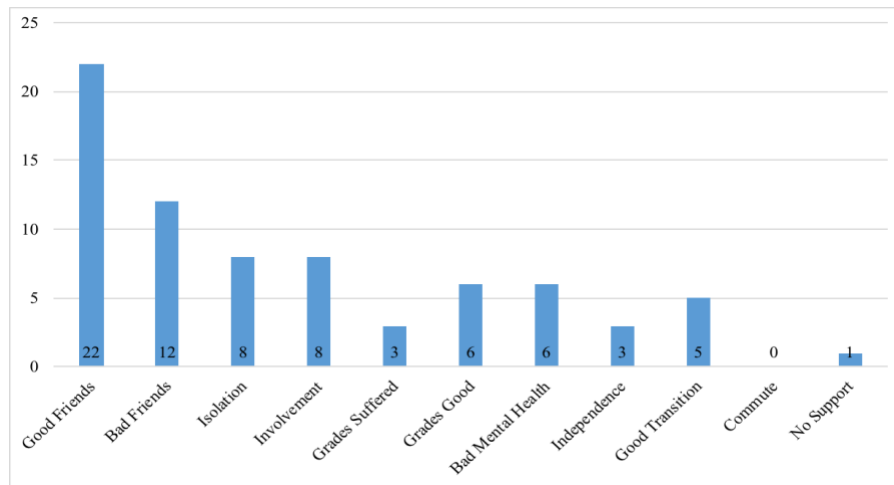
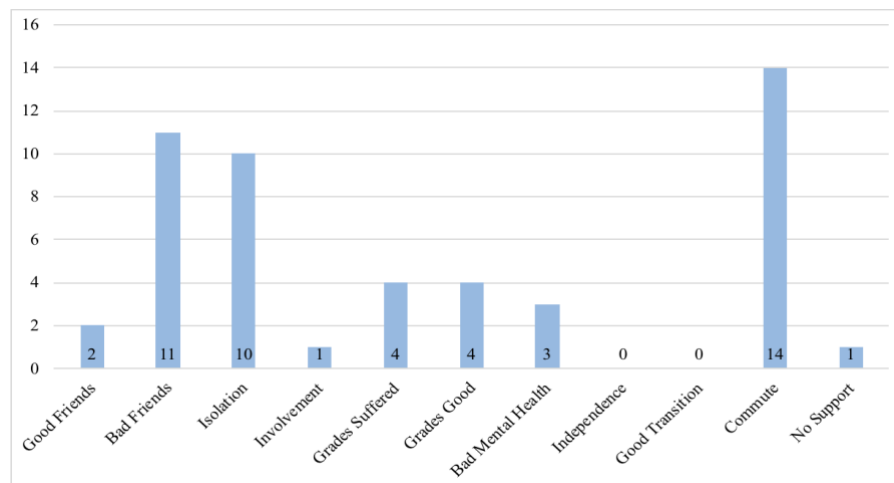
Figure 9, 10, and 11 display themes cited by participants in their qualitative answers to the question, "Overall, do you feel your living arrangement affected your overall first year

Figure 7: Overall Satisfaction with First Year Experience***Figure 8:** Overall Influence of Housing Environment on University Experience*

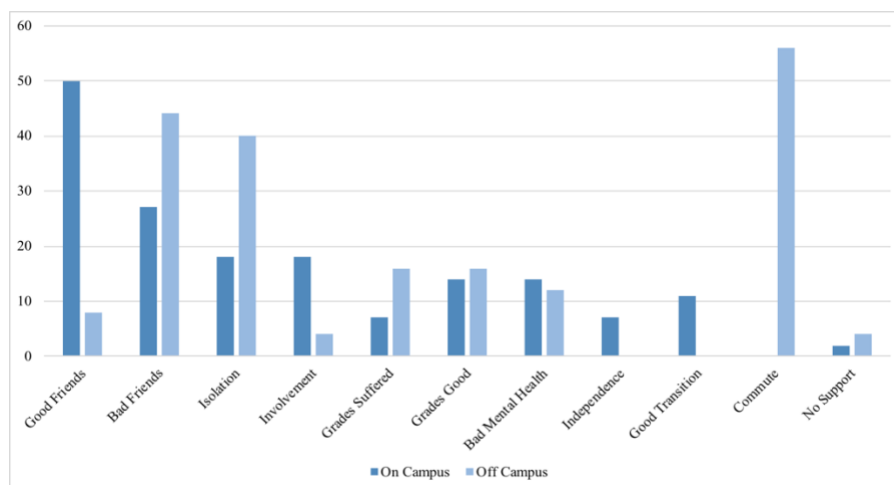
experience? Briefly explain in one or two sentences why or why not.” These answers were in participants' own words and then coded by emerging themes across all participants. Figure 3 and 4 show which themes were most and least common for both on- and off-campus participants and Figure 5 compares the rates between both categories.

This figure (Figure 9) shows the results from participants who answered this question on the survey and lived on-campus (n=44). The most common factor discussed by participants living on-campus in terms of the effect on their university experience, was the quality of their friendships. Both good and bad friendships were cited by 33 (77%) of on-campus participants as the most important factor in how their living arrangement affected their experience, with most of them being positive or good relationships. This seems to suggest that living on-campus can lead to greater opportunities for strong friendships. Only 1 on-campus participant included having no support, indicating that living on-campus could provide greater support to students, but further research should be done to specifically examine that possibility.

This figure (Figure 10) shows the results from participants who answered this question

Figure 9: Experiences of Students Living On-Campus**Figure 10:** Experiences of Students Living Off-Campus

on the survey and lived off-campus ($n=25$). The most common factor discussed by 14 (56%) participants living off-campus in terms of the effect on their university experience, was their commute to school. This is a natural outcome since it is likely to assume that students not living at the school will have to commute. Most comments regarding the commute were negative (i.e. it took too much time, contributed to a lack of involvement) but some included positive benefits to commuting such as making friends with other commuters. Twelve off-campus participants also discussed social relationships as influenced by their living arrangements (48%) although most relationships discussed by off-campus participants were negative or bad. Interestingly only 1 off-campus participant discussed feeling ill-supported, the same as those living on-campus. This suggests that off-campus participants still have avenues of support outside of campus. Finally, a significant number of off-campus participants discussed feelings of isolation due to their living arrangement; 10 participants or 40%, approximately double the rates of isolation among on-campus participants. This finding supports our original hypothesis that living on-campus would provide a greater sense of community and belonging than living off-

Figure 11: Comparing On- and Off-Campus Qualitative Themes*

campus.

This figure (Figure 11) compares on- and off-campus qualitative results using the same data as Figure 3 and 4, however these data have been converted to percentages to account for the difference in participants for each category. When compared this way we can see the different ways in which on and off-campus participants described their university experience as affected by their living environment. On-campus participants were more likely to describe good friends, involvement, independence, and good transition as part of their university experience and living environment. Off-campus participants were more likely to describe bad friendships, isolation, and the commute as part of their university experience and living environment.

Discussion

Demographics

For the purposes of our study, we decided to ask our participants a series of demographic questions in order to gain a broader understanding of the student population at McMaster. Due to the sample size of our research, we know that our findings are not necessarily generalizable to the broader society, however, with these responses we may be able to hypothesize whether specific demographics can influence the relationship between housing environment and overall experience. It is unfortunate that we were unable to run any cross correlational statistics surrounding the demographic results of our research due to unforeseen circumstances. This process would have aided in a better understanding of the relationships between the demographics and our variables. For this same reason, the discussion of demographic findings will be grounded in both the hypothetical relationships we believe to be present, as well as the areas we would like to pursue for future research.

The most important demographic we have acquired through our research is the specific proportion of participants who lived on- or off-campus. These results differ quite drastically, with 66% of our sample size living on-campus and 34% living off-campus. We hypothesize that there are three possible explanations for this trend. Firstly, we used convenience sampling whereby the people who completed our survey were more likely to find it on-campus. We used posters, and social media posts sent to groups run by on-

campus clubs and relied on snowball sampling to advertise our research. This means that it is more likely that the majority of our participants were on-campus students, as they were more likely to see the survey advertised. The second is that it is possible there are more students who live on-campus in their first year, as McMaster residences house approximately 3,600 students each year (McMaster, 2012). Although there is no way to know specifically what the numbers were each year, we hypothesize that McMaster provides plenty of opportunities for on-campus living. The third possible explanation for our findings is based on the 'typical student identity' as described by Holdsworth (2006). This states that perhaps more students choose to live on-campus to fit in with that preconceived idea of a university student (Holdsworth, 2006). With this knowledge, one may consider that our participants had already considered living in residence before they even started at McMaster University, as a means of fulfilling that specific social role (Holdsworth, 2006).

Another important demographic we asked of our participants was which faculty they belonged to. The reason for this was to try and determine if there were any commonalities amongst specific programs or faculties. The largest faculty representation was from the Faculty of Social Sciences (n=34), followed by Science (n=18) and Humanities (n=14). Our least mentioned faculties were Life Science, Health Science and Kinesiology, all with three responses each. We believe one of the possible explanations of the high volume of social science participants is a result of us being a part of the social science faculty ourselves. Due to our overlapping social networks, as well as being part of the fourth-year capstone course that is well known within our program, we assume that many of our participants within the faculty know us in some way. We also advertised our research via the social media pages for the social science students of various years, and although we did not seek out these subjects directly, we believe this could also contribute to the high presence of our faculty being represented.

Within our survey, we also looked at the race and ethnicity of our participants and divided our results into 9 categories. There were 46 individuals who identified themselves as Caucasian, with the second highest being 12 South Asian individuals, and the smallest group was that of the Indigenous individuals with only 2 responses. With these demographics, we would have been interested in finding out if there was a correlation between being Caucasian and living alone or being a racial minority and living collectively. According to the pre-existing literature, race and ethnicity can play an important role in social integration, as different cultures enforce various living situations and expectations individually (Pokorny et al., 2017). According to the study by Pokorny et al. (2017), in Caucasian culture it is usually more accepted to live alone, and we would have liked to see if those trends were visible amongst the first-year populations at McMaster.

The final characteristic we asked our participants to indicate was that of their gender identity. In our results, we had 74 females, 18 males, 1 non-binary individual and 7 who did not answer the question. We believe that we had so many females participate due to two possible reasons, the first being that the Faculty of Social Sciences is a predominantly female population. Being that this is the largest represented faculty in our study, a lot of those social science students are likely to be female. The second potential explanation is a result of one of the findings in our literature review. Some of the literature we have found regarding our study indicated that gender plays an important role in how likely students are to interact with their faculty or program, which we believe could give us insight into

how students may be influenced by their involvement (Muslim et al., 2012). In this study, it was concluded that women typically aim to engage more with members of their faculty in an attempt to strengthen such relationships as compared to men (Muslim et al., 2012). If this is true, then perhaps more female students completed the survey as it was advertised on their faculty page, or in one of their buildings, and their participation is a result of wanting to be more engaged with their program. Furthermore, if females are more likely to strive for strong relationships, they may have been more likely to share our survey with others, which is a product of our chosen snowball sampling method. We believe that this relationship would have been interesting to look at as it could have indicated if being on- or off-campus was not as relevant as engaging with one's faculty. This knowledge could have also helped us understand if perhaps gender played any role in how effectively an individual achieved all four of our main tenets. For example, are women more likely to make strong relationships, or do men achieve more academic satisfaction? Perhaps gender may not have impacted our results at all, but it would have been an interesting relationship to integrate into our findings, had we been able to study this further.

Although we were not able to run many of the discussed cross correlations regarding our demographic findings, the frequencies of our participants alone provided us with a substantial understanding of our sample. With these numbers, we were able to see the diversity of our participants and reflect on both the theoretical and literary explanations that helped us hypothesize our results. If we were to pursue this research in the future, we would like to run some of the tests necessary in establishing these relationships, and ultimately gain more knowledge on how external factors can influence both living arrangement itself, and the effect it has on an individual's first year experience.

Academic Achievement

As stated previously, academic achievement for the purposes of our study is quantified as the participants' satisfaction with their academics rather than the objective grading scale. Of all the variables studied, academic achievement had the least significant relationship to housing environment. Whether the individual was on or off-campus, 62% of all participants agreed that their academic achievement, whether positively or negatively, was influenced by their housing environment. Previous studies have found mixed results on the effect living on or off-campus has on academics (Turley & Wodtke, 2010). Our data reflects this concept as rates of academic satisfaction did not vary drastically with 50% for on-campus and 41% for off-campus. Although it was not found to be a relevant relationship, according to the current study, students who lived on-campus were slightly more satisfied with their academics. This concurs with previous studies that found that living in residence could provide students with more opportunities to study together with their peers as well as students from different faculties and learn from them (Pokorny, Holley & Kane, 2017). When asked about their ability to time manage there was also minimal difference between on-campus (59%) and off-campus (67%). This suggests that perhaps time management is an individual attribute rather than one that is impacted by one's housing environment.

The current study does offer certain contradictions to previously conducted research. Similar to other factors examined under the variable 'academic achievement', there was little difference between the mention of good or bad grades between on or off-campus

participants. The argument that has been made is that those who live on-campus are able to get better grades because they had more time and drive to focus on school (Pokorny et al., 2017). With the findings from our data we see that housing environment did not have a large impact on grades, whether it be positively or negatively. Our data shows that 14% of off-campus and 16% of on-campus students mentioned that their living environment enabled them to get good grades, while 16% of off-campus and 7% of on-campus participants stated that their housing environment impacted their grades negatively. We hypothesize that this is due to the fact that academic success is dependent on one's ability to accomplish work in their given housing environment, regardless of if it is on-campus or off-campus.

The conclusions drawn from the research study clearly outline that there is not a significant relationship between academic achievement and housing environment. Students with high academic self-efficacy have greater academic achievement due to their higher expectations and goals, as well as their tendency to see work as a challenge rather than a threat (Wilcox & Nordstokke, 2019). Our research concludes that although housing environment does have an impact on academic achievement, the influence is very minor. This suggests that higher or lower academic achievement is dependent on an individual's fortitude rather than housing environment.

The theoretical concept of 'mastering' also supports the minimalistic relationship that was found between housing environment and academic achievement. How well a student can master an environment can contribute to their success in academics. This may help to explain the low rates of dissatisfaction with academics among our participants. It is a possibility that many of our participants have mastered their environment (regardless of whether it is a residence, family home or other) so that it no longer impacts their academic success. The ability to master a new environment is particularly important for those who live on-campus as they will have to adjust. If someone can adjust quickly, the transition may not impact their academic achievement as much as someone who could not. We hypothesize that if a successful adjustment has been made for both cohorts (i.e. on-campus or off-campus) then there will be little impact of housing environment on the individual's academic success. If one is unable to master their environment it may lead to a variety of implications regarding their academic satisfaction.

Lastly, it is important to acknowledge that when trying to analyze the relationships found between academic achievement and housing environment, there are various external factors that could influence this relationship. If we were able to collect additional correlational data, we may have discovered additional relationships. We hypothesize that academic achievement may have been influenced by the other variables studied such as social relationships and stress, which is extremely likely when considering previous research done in this area.

Stress and Affect

The conclusions made from the current research study regarding the variable of stress and affect are categorized under the three concepts of mental health and stress, coping, and transitioning. In terms of mental health and stress our research shows that independent of housing environment, 80-85% of participants reported an increase in stress during their first year of university. Similarly, there was only a 2% difference between rates of poor mental health reporting between on-campus (14%) and off-campus

(12%) participants. Ross et al. (1999), suggests that undergraduate students face constant evaluation (i.e. tests, papers etc.) and that they have to deal with interpersonal conflict, self-esteem problems, and struggles with money, all of which are sources of stress. The fact that our research found no significant differences regarding mental health and stress between on-campus or off-campus students supports this claim. It is clear that poor mental health and stress are a result of universal struggles that all university students face, regardless of their housing environment. If we were able to pursue more in-depth analysis of the data collected, we would have been able to investigate the relationship that exists between a student's stress and their academic achievement, as some studies have discussed.

Among much of the literature, there is substantial evidence of the connection between stress and the amount of social support an individual has (Li et al., 2018). Studies have found that those who live off-campus express not having social support resulting in high levels of stress. Our research findings directly support this claim. Of the on-campus participants, 64% agreed that they were able to cope with life stressors while only 48% of the off-campus agreed. Stress occurs from both outside stimuli as well as the individual's ability to cope with the response that occurs (Ross, Niebling & Heckert, 1999). We hypothesize that those who live on-campus have an easier time accessing the mental health services provided by the university. In addition, these individuals may have additional social support from faculty and peers that is more accessible because of the lack of distance.

The third concept that emerged from the variable stress and affect is transitions. First-year students face many daily struggles associated with transitioning from high school to university life that cause them to feel stressed (Ross et al., 1999). One of the major adjustments for off-campus students during this transition time is commuting. A large portion of our off-campus participants indicated that commuting was a strong factor that influenced their degree of stress as well as their ability to cope with them. Some research suggests that student housing has strong benefits when it comes to the transition to university (Moore et al., 2019). However, our study supports the claim that the transition to living on-campus in a new environment actually increases feelings of depression such as homesickness and loneliness (De Coninck et al., 2019). Of the on-campus participants 56% reported feeling homesick while only 24% of off-campus did. Although only 11% of our on-campus participants claimed they had a good transition, no one from the off-campus population spoke on the subject at all. This indicates, that although the number of students on-campus who had a good transition was quite smaller, it was still present as opposed to the off-campus responses. One could argue that those who live off-campus do not experience a transition considering they are remaining in the same housing environment. However, as stated before, the impacts of student life on stress levels can be applied to all students (i.e. the same transition). Therefore the 11% on-campus statistic becomes significant in discussing the transition process because the only difference between the two university experiences is the participants' housing environment.

Our findings reflect that participants reported their housing environment did influence their overall stress. Of the off-campus individuals 45% agreed with this and of the on-campus individuals 50% agreed. Although there is not much discrepancy between the percentages, these rates can be explained through our theoretical approach. Based on the components and proximity principle we see that there is an influence of larger social

structures (i.e. residence) and those around someone on their behaviour, roles, and social norms. These concepts can all be classified under the identity of the individual. For individuals who live on-campus, their identity is rooted in and being influenced by those around them, which in most cases is fellow students who share similar experiences, and the university campus life as a whole. Students who live on-campus fit the 'typical student' identity, in that they do not have to manage multiple ones (Holdsworth, 2006). This could explain the lower rates of responses that housing environment influenced stress levels for on-campus students. Contrary to the single identity concept is the idea that off-campus individuals have to manage dual-identities. There is a university identity similar to those living on-campus, but there is also an identity that is rooted in their place of residence (ex. Family home). As one participant reflected: "Living off campus with my family, I had a less 'traditional' university experience." The continuous management of these identities can cause individuals additional stress linked to housing environment.

Sense of Belonging and Involvement

Our findings concluded that 47% of on-campus students felt that they belonged at the university compared to only 35% of off-campus students. As discussed in the literature, on-campus students develop a 'typical student' identity, while off-campus students may have two conflicting identities; 'a home vs. school' identity (Holdsworth, 2006). It is possible that as a result of having two different identities, students feel they do not belong entirely in either identity, therefore feel they do not completely belong in the McMaster community. The components principle of SSP states that where a person lives reflects the values and scripts they use in their everyday life (House, 1981). We hypothesize that on-campus students spend more time on-campus, and therefore would create similar scripts to other on-campus students and have a higher sense of belonging. Secondly, the personality principle of SSP states that where you live can alter your attitudes, values and beliefs (McLeod & Lively, 2003). We would hypothesize that people who live on-campus would have similar personalities, create more social relationships, and result in a higher sense of belonging.

Our study concluded that 55% of on-campus students joined extracurriculars compared to 26% of off-campus students. This supports the proximity principle of SSP that states that individuals within certain proximity are linked due to having similar experiences. Macro structures (i.e. where one lives) can influence social roles and the people one engages with (House, 1981). We know based on our findings that on-campus students join more extracurriculars, and therefore we hypothesize that this is one of the reasons on-campus students have a higher sense of belonging. The literature found that students that live on-campus are more likely to engage in binge-drinking due to their "typical student" identity (Holdsworth, 2006). Students who live off-campus and especially with their parents or guardians are less likely to engage in binge drinking (Holdsworth, 2006). According to the literature, off-campus students can be subjected to othering due to not being fully immersed within the "typical student" identity (Holdsworth, 2006). We hypothesize that othering could make the off-campus students feel as though they do not belong as much as on-campus students at the university.

The research found that 94% of on-campus students and 65% of off-campus attended McMaster's Welcome Week events. Welcome Week is designed to support a student's transition to university life (McMaster, 2012). We hypothesize from our findings that

Welcome Week is not as effective in integrating students as originally designed due to the fact our research found that 40% of off-campus students felt isolated in comparison to only 18% of on-campus students. These findings support the proximity principle of SSP. Off-campus students may not live in close proximity to campus and therefore, may have different experiences than on-campus students, which could cause off-campus students to feel isolated. According to our qualitative research, 11% of on-campus students thought they had a great transition to university, while 0% of the off-campus participants felt as though they did. While the results seem minor, we hypothesize that the 11% of on-campus responses displayed that students are able to master their environment better than off-campus participants. This leads us to hypothesize that on-campus students have an easier transition to university. This knowledge could help change how Welcome Week is designed to help off-campus students feel less isolated and have a better transition to university.

Our participants' perceptions of the overall influence of their housing environment on social belonging were as follows: 68% of those who lived on-campus compared to 82% of off-campus participants agreed that their housing environment influenced their social relationships. These results suggest that a large percentage of off-campus students felt that where they lived influenced if they belonged. Mattering theory states that when someone feels that they belong in a particular setting, they will be more satisfied with their experience (Elliot, Kao, & Grant, 2004). Therefore, our research concludes that where you live in your first year can influence whether you joined extracurriculars, felt isolated, had a smoother transition, and the overall sense that you were involved in the McMaster community.

Social Relationships

From our findings, we have concluded that social relationships are by far the most significant determinant of overall experience in relation to one's first year at McMaster University. The first significant result of our study pertains to how easy it was for first-year students to make new friendships as influenced by their place of residence. As illustrated in some of the literature discussed previously, it is less likely for students who commute back and forth from campus to be able to create meaningful social relationships (Astin, 1984; Holdworth, 2006). In our study, it was concluded that 62% of both on- and off-campus students were able to maintain their old relationships. This indicated that place of residence does not have a significant influence on previously formed friendships, and the real differentiation is in how students create new relationships. Within our study, we found that 61% of on-campus students claimed it was easy to meet new people and generate relationships, as opposed to the 38% of off-campus participants. When asked about both the quantity (50%) and quality (59%) of their new relationships, on-campus participants rated a higher satisfaction. This indicates that it is overall easier for on-campus students to meet new people and form significant relationships.

We hypothesize that this could be due to the fact that on-campus students are surrounded by more opportunities to form new relationships, which can also be illustrated by the proximity principle in the theory of SSP. This principle draws attention to the fact that those who are in a close radius to one another are more likely to form relationships, which relates directly to the findings of our study (House, 1981). With this knowledge, we can conclude that those who lived on-campus found it easier to make new social

relationships. As social relationships were the most influential factor of a good experience, we can hypothesize that those living in residence are more likely to have a better first year experience than those who live off-campus.

Throughout our findings, we can confirm that 65% of those who lived on-campus made the majority of their friends in housing, due to them being in close proximity. Alternatively, our research shows that of those who lived off-campus, 62% formed most of their relationships in classes. Not only does this finding support the proximity principle of SSP, it also indicates that there could be a difference in the roles which on- or off-campus students embody. As described by previous studies, it is common for students who live on-campus to typically consider where they live as a primary social setting, whereas those who commute may simply conceptualize it as a place to live (Turley & Wodtke, 2010). This different perception of place of residence may have significant implications when it comes to an individual's identity. A student who lives on-campus will most likely spend more time in their housing environment, and the social norms and scripts that are used in interactions are more likely centred around where they live. Theoretically speaking, this means that one's personality or identity begins to embody the 'typical' on-campus student. As described by the literature, a 'typical student' reflects those who live on-campus and present higher rates of stress, binge drinking, and debt (Holdsworth, 2006). With regards to the component's principle of SSP, which states that the roles individuals hold in society ultimately affect how they behave (Biddle, 1986). We believe that those who live on-campus share similar social roles by being 'typical on-campus students', and therefore are more likely to form relationships within that group (Biddle, 1986).

In a similar nature, those who live off-campus also embody a specific social role, which opposes those on-campus, meaning off-campus students are typically more focused on their academic identity (Biddle, 1986). As the participants who live off-campus may more commonly associate the university as a place for learning rather than living, our hypothesis is that they would meet more people in classes. Using the components principle, the norms and scripts associated with specific classes, faculties, and learning styles will help these students meet new people who also represent those same norms. We hypothesize that the majority of students who live off-campus come to campus grounds for academic purposes (i.e. studying, attending lectures, etc.), therefore the opportunities they have to meet new people are limited to academic related purposes. According to the proximity principle of SSP, off-campus students are most likely in close proximity with those in their classes. Overall, the understanding surrounding where our participants created most of their social relationships can effectively be grounded in both the previous literature and theoretical frameworks.

One of the questions of our survey indicated that 62% of those off-campus lived with friends, and 38% lived with family. This finding in particular was quite different than anything we had previously hypothesized, as we had predicted that more students off-campus would remain at home with their families. This indicates that students who lived off-campus still moved out of their family home, but simply did not live in on-campus residence. This small detail is very important when understanding one's ability to create relationships. Previous literature has stated that those who live with friends, regardless if they are off-campus, will find it easier to form relationships than those who live with parents or guardians (Turley & Wodtke, 2010). Although we were unable to run any cross correlations between who these off-campus students lived with and their ability to form

new relationships, that is a relationship we would have liked to understand more to better represent our participants' experiences.

The results regarding our participants' perceptions indicated that 89% of those on-campus and 94% of those off-campus stated that there was an overall influence of housing environment on their social relationships. Although both groups rated very high in this aspect, this indicates that those who lived off-campus felt that where they lived mattered more when creating and maintaining social relationships. With this statistic alone, we hypothesize that most students felt that their place of residence and ability to create social relationships were strongly related. To better understand this relationship, we looked into the qualitative responses of both on and off-campus participants. Almost all of the qualitative responses across both groups indicated a common theme of friendship, whether positively or negatively. According to our results, the theme of good friends was discussed by 50% of on-campus and 8% of off-campus students. This indicates that more students on-campus described having good friends, and that those good friends impacted their overall first year experience at McMaster University. The theme of bad friends was represented in 27% of the on-campus and 44% of the off-campus populations in our research. This reinforces both the idea that it is usually more difficult for off-campus students to make good social relationships, as well as how influential social relationships are in determining overall experience, regardless of whether it is positive or negative.

Broader Significance

As stated previously, with our sample being from the McMaster population, we know our findings are not necessarily generalizable to the broader society. Our research findings provide significant insights to McMaster and how they can make students on and off-campus satisfied with their first year experience. Overall, 65% of on-campus students in comparison to 50% of off-campus students were satisfied with their overall experience. We presume that McMaster would want all of their first-year students to be satisfied with their overall experience. While our research does not touch on every variable that could affect a student's experience, our research offers insights on where McMaster should focus on developing programs and solutions to better the first year experience. In our qualitative responses, 70% of participants mentioned friends to be influential to their first year. Further research should look at exploring social relationships and friendships in university.

According to our research, regardless of where one lives, an individual's closest relationships are with one's friends. Off-campus students indicated they found their friends in classes and on-campus students found their friends in housing. Overall, since off-campus students are less satisfied with their overall first year experience, McMaster University needs to focus on finding ways to connect off-campus students more to their classmates. The literature states that a student's anxiety and stress can be improved by more group facilitation (Ames et al., 2011). We hypothesize one potential solution is increasing the number of active learning classrooms for first-year students. These classrooms have smaller class sizes and allow students to communicate better (McMaster, 2012). We hypothesize based on our research, that if students were given more opportunities to make close friendships, they would have a better first year experience. While our research suggests on-campus students have a better overall first

year experience, university housing can only accommodate for 60% of the first-year population (McMaster, 2012). This suggests that McMaster University should focus more on helping off-campus students find accessible ways to find and create social networks.

According to past research, students who lived off-campus benefited more when they have a strong perception that their faculty cared for them (Henderson et al., 2018). According to our research, off-campus students participate in fewer extracurriculars. We hypothesize that off-campus students have less access to campus and people in their program which in turn can affect their overall first year experience. Further research should look into off-campus students and their access to resources on-campus to learn more about this potential correlation.

Our group initially hypothesized that where you lived would have an effect on academic achievement. According to our results, 14% of off-campus students and 16% of on-campus students report having good grades. The percentage does not provide a relevant relationship because the numbers are similar in percentage and low compared to our other variables. These results suggest that academic achievement is not firmly correlated with housing at McMaster University. Similarly, we hypothesized that where you lived would affect your mental health because past literature states that undergraduate students report distress rates three times higher than the general public (Mackinnon, Sherry, Pratt & Smith, 2014). Past research has also stated that among all university students, first-year university students score the highest in chronic stress (Ross et al. 1999). Our results tell us that this increase in stress is most likely due to factors other than living environment. Our qualitative results indicated that 14% of on-campus students and 12% off-campus students reporting their mental health was affected by where they lived.

We hypothesized that each variable would contribute to our results, but we did not anticipate that social relationships would have such a substantial relationship. Overall, 94% of on-campus students and 89% of off-campus students indicated that their living arrangement affected their social relationships. These results indicate that social relationships play a significant role in the first year of university regardless of housing environment. Social relationships had the highest percentages over any other variable. Further research needs to be done on social relationships and the role they play in a student's first year of university.

Another surprising statistic we found was 62% of on and off-campus students indicated that their living arrangements impacted their academic achievement. With a sample size of 100 participants, receiving the same statistic from both populations was not anticipated. There was a 9% difference in statistics for academic achievement between on and off-campus. The literature states that on-campus students develop the "typical student" identity and engage in more binge drinking and have more social relationships (Holdsworth, 2006). We hypothesized that due to binge drinking and having a large number of social relationships would cause on-campus students to be less satisfied with their academic achievements, but this is not consistent with our results.

Levels of stress were also similar across the statistics; 80% of on-campus students and 85% of off-campus students reported stress. These results suggest that regardless of where you live, the first year of university is stressful. The literature suggests living away from your parents causes more stress. Reported in the literature and our data, on-campus students report higher levels of homesickness, and therefore would report higher

levels of stress than off-campus students. Further research should be done on how these high levels of stress can be reduced in students.

Lastly, in our qualitative research, a large percentage of participants mentioned that commuting impacted their first year experience. One participant responded:

Yes, I think it did. Because I lived outside of the immediate McMaster community, I tended to bond with others who were commuters. I was in a smaller program and did join a club, so even though I didn't live on campus like most of my classmates, I still felt a sense of community within McMaster.

Our qualitative responses indicated that commuting could be a positive or negative experience. We hypothesized that in our qualitative research, we would see each variable expressed equally. Our results indicated that social relationships and commuting were the most influential to students in their first year. While a large amount of our data suggests that living off-campus negatively affects social relationships, it is important to acknowledge positive responses as well. Further research should focus on the relationship between commuting and friendship, as the results can help indicate further ways to improve the overall first year experience.

Conclusion

Summary

The main focus of our study focused on the influence of where a student lives in their first year and how it affects their first year university experience. The way in which we measured the experience was through the conceptualization of four variables: academic achievement, stress and affect, belongingness and social relationships. Using the Social Structure and Personality theory, we used the foundational principles of the proximity principle, components principle, and psychology principle to determine the possibility of a correlation. To get a basis of our study, we used literature surrounding the factors that affect each of our concepts and then discussed the effects of housing on these themes. Through posting online and around the McMaster campus we used an anonymous survey in order to generate generalizable and unbiased data within the McMaster community. For future research, we touched on some limitations that could potentially be considered for further prospective studies. With all of the information we collected, we found that social relationships were most influenced and where one lives strongly affects their overall university experience.

Limitations

Throughout the process of our research study, we have discovered some potential limitations of our methods, literature, and concepts. The first limitation to our approach is that we were unable to regulate the participants who completed our survey. With our survey being structured to keep participants anonymous, we were unable to guarantee that they properly met the criteria we needed. There was no way to be absolutely certain that the student is a) 18 years or older, b) an undergraduate student, c) completed one year of university, or d) one who attends McMaster University. Although these factors may have caused a slight inaccuracy in our data conclusions, there was simply no way

to ensure this criterion was accurate without compromising the anonymity of our participants.

Another general limitation to our research study is the fact that not all students who attend university may have had a choice of where they lived in first year. Due to factors of socioeconomic status, religious beliefs, or parental influence, some students may not select a place of residence by personal preference alone, which is an important factor to consider when looking at overall experience. For the purposes of our study, we were not focusing on the reasons why students selected a particular living arrangement, which may have prevented us from understanding the full extent of our conclusions. Although studying the motivation behind choosing a specific living arrangement may have provided us with a richer understanding of the data, we believe this limitation has not impacted the relationship we have chosen to observe. It is also important to acknowledge that the variables we chose to represent the overall university experience are limited in scope. There could be other variables important to this experience that were overlooked, therefore limiting the effectiveness of research on the overall experience.

While looking at where one lived in first year, there were some aspects we had not focused on that could change the way the data was interpreted, posing another potential limitation. Just because an individual lived in a particular environment does not necessarily mean they spent all their time there. For example, our study did not account for the individuals who went home to be with family, a significant other, or friends frequently. This is a critical piece of information that could have severely changed the impact one's living situation has in everyday life, as the factors associated with living near the campus may not be as prevalent in those who are consistently away from it.

Another important limitation of our research study was simply a result of the lack of time. Through a series of demographic survey questions, we have gathered results on characteristics such as gender, ethnicity, and program of study. We believed that these results could provide our research with a thorough and well-rounded understanding of differences in how living environments impact McMaster students. Using any gender or ethnic differences based on our four variables of evaluation, we would have potentially been able to draw correlations or relations surrounding them. Unfortunately, due to the nature of this project, as well as lack of resources and time, we did not have the necessary opportunity to dedicate to these findings. Although we have touched on specific demographic factors regarding gender or race, we have not been able to dedicate enough time to make it a part of our main focus.

With regards to the findings we have acquired throughout the data collection process, we have found some small limitations that may alter the minor details of our conclusions. The first, and probably most notable, limitation to our data is the disproportionate amounts of participants who lived on- versus off-campus. As we used primarily on-campus means of recruitment (i.e. posters), as well as the simple fact that McMaster University is able to house many more first-years, it makes sense why our numbers of on-campus participants were much higher. In order to best represent this discrepancy in the data, we have chosen to display our findings as proportional percentages rather than frequencies. We believe that this helped aid in demonstrating the overall trends in both the on-campus and off-campus participants, without giving the illusion that the two groups were equal.

Another limitation we have found with our results is a product of our selected means of sampling. As mentioned previously, we anticipated snowball and convenience sampling

as our selected means of data collection. Due to this factor, we assume that anyone who had completed our survey would most likely send it to their friends or classmates, and we think that this is the main contributor to the fact that a lot of our participants are from the same program and/or faculty. With us being part of the Faculty of Social Sciences, we assume that our social circles involve many of the same students, which is why our proportions of the one faculty are so much higher. Although this is a limitation to the diversity of our results, we believe that it does not have much impact on the correlations between place of residence and overall experience. Additionally, disadvantages of questionnaires may have caused more potential challenges. For example, we were unable to ask any follow up questions that would further our understanding on the topic (Bryman & Bell, 2016). It is also proven that participants frequently do not write much during online surveys. Thus, participants may have skipped the “other” line and chosen an answer out of convenience (Bryman & Bell, 2016). This means that these questions may have not gotten authentic responses.

One of the smaller limitations of our research was with the functionality of that of both LimeSurvey and SPSS. There was a feature on LimeSurvey that prevented us from being able to make any edits to our survey once it had been posted. Due to this, we were unable to change wording, or correct any typos that had been missed in editing. Although this didn't impact our data too much, it may have made the survey seem less professional to our participants, which is not something we would have liked to convey. With this being said, we feel our questions were straight forward enough that regardless of a minor spelling error, our participants were still able to answer the question effectively. Similar to the functionality of LimeSurvey, we had several limitations when it came to using SPSS. As SPSS was not a computer program we had much experience with, it took us some time to be able to understand how to properly use it. We eventually got to the point where we understood the functions and the most effective way to run specific statistics. It did take some time at first to become familiar with the program, which could have been used more efficiently to run more statistics.

Another notable limitation we acquired throughout the research process is involving that of our qualitative data. The purpose of the qualitative question was to gain knowledge on our participants' subjective opinions of their overall first year. Once we had closed the survey and gone through the data, we discovered that many people chose not to answer that specific question. We managed to use 69 responses, which although a significant number, does not match our sample size ($n=100$). In order to better represent these responses, we chose to look at the proportions of the themes discussed only within those 69 people. This means that when discussing our qualitative results, the percentages that have been calculated are reflective of those who answered the qualitative questions only. Another limitation with the qualitative data was simply in the responses themselves. Many of the participants used contradictory statements to indicate how they felt their living arrangement impacted their first year: “Yes, I didn't have a great roommate which affected how much I enjoyed residence. But I overall met good friends and it was worth it.” In order to resolve these issues while still keeping the integrity of the data, we coded and analyzed the responses manually, and found similar themes that were discussed. This allowed us to draw conclusions on broad ideas that were most commonly discussed by students with regards to a positive or negative first year experience.

The last and most significant limitation of our research study was a result of completely unforeseen circumstances of COVID-19. Due to the closure of the university campus, our access to SPSS was cut off unexpectedly. This meant our group was unable to run further statistics on specific correlations and variables of interest that we would have liked to. Although we still managed to collect significant findings with the time we had, we were unable to look into any other interesting relationships between specific variables, which could have provided a more well-rounded understanding of the data. This limitation was a result of external factors beyond anyone's control, and therefore there was no way to resolve such impacts on our research.

Overall, there have been some limitations in conducting this particular research study. However, we believe that the limitations presented are in no way harmful to participants and can easily be addressed in further research. Although it is unfortunate that we were unable to touch on factors such as demographic differences, motivations for living in a particular location or how much time one spends at home, we would much like to continue to investigate these facets in future research.

Significant Insights

The conclusions of the research that was conducted is very useful to the greater society in a variety of ways. The majority of our participants stated that overall their housing environment did have an influence on their first year university experience (whether good or bad) based on the four variables studied. This information can provide incoming university students with a better understanding that will in turn help them make a decision on where they would like to live. The conclusions of this study will help students prepare for outcomes that may come out of their decision on where to live in regards to their academic achievement, stress and affect, sense of belonging and involvement, and lastly, their social relationships. The information is especially useful for McMaster students as the current study was conducted using the McMaster population. However, future research could use our study as a starting point to further develop the hypotheses and research findings at other university campuses.

Overall, those who lived on-campus were more satisfied with their university experience than those who lived off-campus. One of the main conclusions of our research is that out of all of the variables that were studied, social relationships were proven to be the most significant influence on the first-year university experience. This information is extremely useful to both students themselves and universities. From a student's perspective, knowing how influential social relationships are could potentially encourage them to participate and get more involved in university organizations. This in turn will help them have a more positive university experience. From a university administration standpoint, knowing the importance of social relationships in the university experience can help them provide a better experience for their students in a variety of ways.

According to our qualitative responses, those who lived on-campus found it much easier to form good friendships than those who lived off-campus. Knowing this can aid in McMaster university to design more affordable and accessible residences to more individuals. It will help them to design enhanced residence areas and programs which could lead to a higher standard of living conditions for students that makes on-campus residences more welcoming. However, the reality of the situation is that there will still be students who are unable to live on-campus. This stresses the idea that McMaster needs

to implement additional programs, clubs, and activities directed at off-campus students. By doing so, they will hopefully help these individuals build stronger social relationships in the university community, which according to the research will influence their university experience positively. This finding can also play a role in the promotion of living on-campus for universities, especially McMaster. When universities send representatives to high-schools to promote the positives of their particular university it would be useful to include the benefits of living in a residence or close by to the university.

The conclusions surrounding the other three variables that were studied (i.e. academic achievement, affect and stress, and sense of belonging and involvement) also provide useful information to students and universities. Given that participants who lived on-campus reported higher levels of involvement and less isolation adds to the information students need when deciding on where they want to live during their first year of university. As stated before, this conclusion also perpetuates the idea that universities, in this case McMaster, need to implement better activities that make off-campus students feel included in the university community. Finally, the final conclusion from the research stating that stress and affect are relatively equal among both cohorts displays the increasing need for mental health services. Both groups felt that they had an increase in stress but had minimal ability to cope with these circumstances. This information is extremely useful to the administrators and policy makers at universities as university students are an extremely vulnerable population to mental health concerns. There needs to be an increased pressure and implementation of resources for students who are experiencing increased stress and are unable to cope. These programs can be designed better to meet the needs of students as a whole and hopefully create a more positive university experience.

If we were able to continue the current study into further detail, we may have also found that the four variables this study looked at may also provide insights into the relationships that exist between each one. Throughout the process of establishing a relationship between housing environment and overall university experience, our conclusions may also find connections between how the factors themselves impact one another. For example, does the number of social groups one belongs to impact their academic achievement in any way? Could a sense of belonging contribute to a positive emotional response? How does academic success contribute to stress levels experienced by first-year students? These are the potential questions that arise from the research question of focus and may provide additional information. In addition, these connections could also potentially show possible areas for further research that can be conducted.

Furthermore, if we were able to gather more conclusions from the current study, we may have found additional connections regarding participants' race and gender. Although this was not the focus of the current study, the information from these demographic questions may have provided insights between them and housing environments as well as the four variables that make up a university experience. We would have been able to identify possible trends between an individual's race and where they choose to live during their first year and their university experience. In addition, the study may have shown the difference in university experience and housing environment between genders. For example, do women have better academic satisfaction compared to men? These types of questions were not the focus of the current study but having demographic questions about race and gender included could have provided potential insights for future

correlations and research. While conducting our research it was important to keep in mind that these characteristics are not completely independent of each other and do create intersectionality.

Concluding Thoughts

In conclusion, our research team intended for the findings to help the McMaster University community as a whole through giving insight to future students. Through allowing future students to have a full grasp of all their options and their implications, students can use our study to be able to make an informed decision. We believe it is important to fully understand the impact of where you live in your first year in order to get the best experience possible. It is therefore a beneficial study to further research since it will give insights to help increase overall university satisfaction. As well, we hope that future research on this topic will implement a larger sample size from different universities so that the findings can be more generalizable to students and faculties. Overall, this study sheds light on the importance of where a student lives in first year and how this may correspond to academic achievement, stress and affect, sense of belonging, and involvement and social relationships. These are important variables we hope future university students will consider in order to enhance their overall first year experience.

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