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Development and evaluation of an online university readiness course furthered by capturing the lived experience of students during this transition: A multi-perspective understanding of the transition to university

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Graduate Program in Health and Rehabilitation Sciences
A thesis submitted in partial fulfillment of the requirements for the degree in Doctor of Philosophy
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Abstract

In the transition to university, students may hold expectations about university life: how their classes, friendships, and support networks would change in university. They may need to adjust their time management skills and study strategies to better suit the new self-directed learning environment, while grappling with psychosocial and emotional changes resulting from the new social and living environments. ‘University readiness’ provided the context and rationale for development of a pre-university online course, *Leg UP: An Introduction to Health Across the Lifespan*. This program was evaluated in a quasi-experimental study to assess its effectiveness at easing students’ transition to university in the areas of academic achievement and adjustment ($n=199$). Academic achievement was measured by self-reported grades and academic adjustment was measured by scores on the Student Adaption to College Questionnaire (SACQ). The results of two multivariate analysis of variance (MANOVA) suggest (1) *Leg UP* participants achieved higher grades, and (2) *Leg UP* participants achieved higher scores on the SACQ, specifically in the ‘attachment’ subscale. Furthermore, a qualitative study was conducted to describe the lived experience of first- and second-year students in the School of Health Studies in their transition to university. This study was situated within an interpretivist paradigm and the methodology of phenomenology; where my interpretation of the accounts of students who experienced the phenomenon of transitioning to university is offered. Interpretive phenomenological analysis was conducted on focus group and interview data collected in order to present a rich, descriptive account of their personal experiences. Findings from this study suggest six overall themes in describing the phenomenon of transitioning to university: Uncertainty, Expectations (and adjusting expectations), Living Arrangement, Pressure, Independence and Identity, and Support. The significance of the combined studies reinforces the need to understand and support students in their transition to university. In doing so, institutions may be encouraged to develop or adapt existing transition strategies to best fit the needs of their unique student populations. This research also has potential for application outside of the area of higher education, wherein close examination of ‘transitions’ in broad terms can encourage a better understanding of individual experiences during pivotal, life-altering moments.

Keywords

Transition, adjustment, first-year experience, higher-education, summer bridge, evaluation, interpretive phenomenological analysis, lived-experience.

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Chapter 1

1 Introduction

Describing ‘in transition’ varies depending on context. In film editing, for instance, a shot transition refers to the combination of element between two shots or scenes in order to generate one full story (Ildirar & Schwan, 2015). With respect to people, this concept can be translated to describe periods of time in an individual’s life that mark the end of one scene and the beginning of the next, all combined to tell their life’s story. What actually happens during these periods of time ‘in transition’, unlike in the case of editing film, can greatly impact the subsequent part of the person’s story. The time in transition is an issue of great complexity, often befitting the subject of research. In this introductory chapter, a broad perspective of ‘transition’ is discussed; first by defining transition, applying role theory to transitions, extending role transition into identity formation, reviewing examples of commonplace transitions, and concluding with the transition of interest to this thesis: the transition to university.

1.1 Defining transition

There are many ways transition can be defined, but when describing the process, the word ‘transition’ often is followed with ‘to’ or ‘from’, indicating that it is a linear process (Taylor & Harris-Evans, 2018). Ecclestone, Biesta, and Hughes (2010) argue there is no single definition of transition, but suggest that “major life events are seen as transitions when people change a sense of who they are” and add that they can be “an impetus for new learning, or they can be unsettling, difficult, and unproductive” (p. 2). In other words, some may struggle in transition which can affect later goals. In a review of the literature on transition, Gale and Parker (2014) suggest a typology of transition: induction, development, and becoming. Transition as induction suggests change as being sequentially defined periods of time in which change happens from one context to another. Transition as development views change in a series of stages, where change takes place from one identity to another. Finally, transition as becoming understands transition as a series of disjointed movements where change in identity does not happen

strictly between a 'to' and 'from' state, instead identity develops on a daily basis that may not include monumental life changes, including back-and-forth movements as well.

Taylor and Harris-Evans (2018) argue that conceiving transition as induction or as development can be limiting, however transition as becoming offers a progressive view of transition due to the fact that transition "is not a neat, unifying package containing skills or competencies, and neither is it a neutral description of a temporal or spatial linear process" (p. 1265). Instead, transition is an on-going process, continuing well-beyond the 'end' point, and it is through navigating these processes of transition where identity is formed (Tett, Cree, & Christie, 2017).

Life course research is one area of study in which transition is viewed as identity formation. According to the life course perspective, experiences an individual has on one occasion can affect their life later on (Komp & Johansson, 2016). More specifically, the life course approach presents an interdisciplinary framework built on the premise that an individual's life is cumulatively and interactively influenced by biological, social, and historical factors (Kuh, Ben-Shlomo, Lynch, Hallqvist, & Power, 2003). Elder, Johnson, and Crosnoe (2003) view the life course as a theoretical orientation, where the life course consists of "age-graded patterns that are embedded in social institutions and history" (p. 4) and transitions within the life course "involve changes in status, identity, both personally and socially, and thus open up opportunities for behavioral change" (p. 8). Thus, transitions can be turning points for changes in both personal and social identity. A series of transitions make up trajectories, or sequences of experiences, which are guided by historical and social influences, but ultimately "individuals generally work out their own life course and trajectories in relation to institutionalized pathways and normative patterns" (p. 8). Transitions are turning points at the intersection of individual choices, societal norms (e.g. age-linked activities), and expectations from institutions (e.g., job descriptions). What comes after a turning point, however, can be perceived as a change in 'role'.

1.2 Application of role theory in transitions

Role theory is situated on the belief that an individual's behaviour is understood to be controlled by the perceptions of that individual's role (Fellows, 2013). Role theory also

postulates that expectations are a driving force for role creation, where expectations emerge from a combination of formal demands of the organization and influence of informal groups (Biddle, 1986). The former creates positional roles, while the latter produces functional roles. In the workplace, positional roles are categorized by job descriptions, tasks, and obligations required of the individual. Functional roles result from informal social interactions, often in an effort to ‘fill in the gaps’ left by the positional role descriptions. There is no script for how to respond to every work situation; individuals may take on roles based on affirmed interactions with others, and this further reinforces the individual’s role (Fellows, 2013). For example, in a team there may exist a project manager, and while there may be a list of responsibilities (positional role), the day-to-day operations of a project manager may require improvisation (functional role). Therefore, the project manager may act in a way that is socially acceptable or customary of a project manager. Throughout the lifespan, there also appears to be frequent reversals of role transitions (e.g., going back to school from the workforce, moving back in with parents; Johnson, 2015). Switching from role to role involves a transition, which casts light on the degree to which individuals understand transitions as either being a forced or exercised choice (Field, 2012).

The concept of role theory can be extended to the concept of role transition, where a change of role can have a powerful effect on the individual’s identity development (Nicholson, 1984). Role transitions are commonly encountered in the organizational management literature referring to career transitions, where an individual moves from one role to another (Ashforth, 2001). During these periods of transition, an individual learns about and negotiates their new role (Hitlin, Andersson, & Elder, 2015). Given the life course perspective described above, the timing of the role transition is important for “understanding the assigned meaning, lived consequence, and management of the events that follow” (Hill-Joseph, 2018, p. 50). Specifically, each transition experienced was grounded in the particular context that arose based on a role transition from a previous context, and so on. It is the awareness of these clusters of events in which role transitions took place that can begin to describe the ways in which personal identity is formed.

1.3 Identity development in transitions

Identity, which can be described as an individual's complex set of personal attributes in order to create a definition of themselves, is shaped in part by transitions (Brzezińska & Piotrowski, 2013). Clinical and developmental psychologist James Marcia, well-known for his extension of Erik Erikson's work on identity and psychosocial development in adolescence, formed the Identity Status Theory. Identity, as stated by Marcia (1980) "refers to an existential position, to an inner organization of needs, abilities, and self-perceptions as well as to sociopolitical stance" (p. 159). In the case of the identity formation during the transition to adulthood, Marcia (1980) comments on the nonspecific end, suggesting "if the termination of adolescence were to depend on the attainment of a certain psychosocial position, the formation of an identity, then, for some, it would never end" (p. 159). Identity Status Theorists argue that the formation of identity is based upon two consecutive processes: (1) Crisis, or Exploration, defined by experimentation and re-evaluating values and choices, and (2) Commitment, the consequence of the choices made during the Crisis. Outcomes of the two consequent processes results in developing one of four identity statuses: Diffused, Foreclosed, Moratorium, and Achieved. Identity Diffused occurs when the individual neither explores nor engages in activities aimed towards a goal. Identity Foreclosed is characterized by making a commitment without exploration. Conversely, Identity Moratorium involves exploration without making a commitment. Identity Achieved is typical of how someone would first experience a crisis, undergo identity exploration, and later select a commitment. Table 1 provides a summary of the four identity statuses theorized by Marcia (1966, 1980).

Table 1 A summary of the four identity statuses as established by Marcia's (1966, 1980) Identity Status Theory

		Experienced Crisis?	
		Yes	No
Commitment to identity made?	Yes	Identity Achieved	Identity Foreclosed
	No	Identity Moratorium	Identity Diffused

However, since the theory's emergence in 1966, many have speculated its significance and do not recognize it as a meaningful theory. Marcia initially suggested that the identity statuses exist in a continuum of increasing identity strength, starting with Diffused, then Moratorium or Foreclosed, then Achieved (Marcia, 1966). Waterman (1999), for example, argues that there is too much emphasis on placing the identity statuses on a continuum, where strength in development of identity is at either pole. His opinion is based on the idea that identity as a construct is open, so in employing a methodology for positioning identities on a single conceptual dimension is illogical. Foreclosed and Moratorium can be interchanged, where the former is closer to commitment (which is desired), but the latter involves more exploration (which is *also* desired). In his words, "it does not appear meaningful to me to discuss a continuum in which the end points make conceptual sense, but the intermediate positions do not" (p. 603). Despite criticisms of Marcia's work, the central tenet of the Identity Status Theory concerning transition being central to the development of identity, specifically in gaining experience through exploration/crisis and having these experiences shape subsequent functioning, is viewed as a valuable contribution to the literature on identity formation (Waterman, 1999).

1.4 What happens during periods of transition? A glimpse at the broader literature on transition

There may be many instances of transition throughout an individual's lifespan. Simply existing and aging encompasses a series of transitions: from infancy to childhood, adolescence to adulthood and then to adulthood and late adulthood. Each step of the way demonstrates a multitude of changes, between which appear transitions. Transitions often examined in the literature involve those in and out of the workforce. For example, in research involving the transition to retirement from the workforce, Russell, Nyame-Mensah, de Wit, and Handy (2018) suggest that in periods of transition, volunteering may help in fostering a sense of community and developing a social support network. Their work examined the effects of volunteering on self-esteem in adults, ranging in age from mid- to late-adulthood. Multiple regression analyses suggested that volunteering can

alleviate potential negative effects of low self-esteem, specifically their sense of belonging and overall life satisfaction.

On the opposite end, transitioning into the workforce has been a subject of study. The term ‘transition shock’ was used to describe student nurses’ experiences transitioning from the familiarity and comfort of the role as student to the role as registered nurse (Wakefield, 2018). Duchscher (2009) offered a conceptual model of transition shock to explain the experience of nursing graduates transitioning to their new roles. New nurses experience feelings of loss, disorientation, doubt, and confusion in their transition, relating to changes in their relationships, roles, responsibilities, knowledge, and performance expectations. In describing feelings of ‘being thrown into the deep end’, nurse graduates perceive a gap between what they were taught in their academic setting and what they are expected to know in the workplace. At the opposite end of the nursing spectrum lies a transition of clinical nurses to community college instructors. Unlike the less-desirable feelings of loss and disorientation faced by new nursing graduates, clinical nurses who transition to community college instructors report feeling comfortable in their new role once able to recognize their innate desire to teach and are further encouraged by their student and staff relationships (Wilson, 2017).

Outside of the literature on individuals in and out of the workforce also exists exploration of the experience of commonplace transitions. In the transition to motherhood, for instance, the post-natal stage (or perinatal period) represents the period in time following the birth of a baby. The emergence of “complex psychological, social, and physical issues faced by women during the perinatal period” (Slotjes, McKinstry, & Kenny, 2016, p. 130) can originate from unmet expectations held during pregnancy. Approaching parenthood with realistic expectations, that is, considering both positive and negative possibilities, can better prepare parents for the transition to new parenthood (Riggs, Worth, & Bartholomaeus, 2018). The transition towards adulthood, however, remains a mainstay of the research on transitions (Field, 2012).

1.5 Transition to higher education

Transitioning to higher education is one example of a transition usually taking place during the transition towards adulthood. The literature on transition to university is abundant (Field, 2012). Coertjens, Brahm, Trautwein, and Lindblom-Ylance (2017) suggest two reasons for the focus of student transition on the higher education literature: (1) students have endless options to pursue post-secondary education, and (2) higher education institutions are being held accountable for student success, thus making the transition to university of practical relevance to both parties.

Within this major transition, there exist potential micro-transitions: transition to living out of the family home, transition to self-directed learning, transition to a new friend group. Educational transitions can be classified as any change to a student's role requirements or environment of study. The transition to higher education is visibly the change of study environment (i.e. new institution, new city, first time living without family) and what is expected of students, or their role requirements, are changed to reflect the independent, self-directed learning environment (Coertjens et al., 2017). The expectations students hold about their future selves in the transition, specifically in the context of social roles of adulthood (e.g. career interests), can affect their choice of activities and decision-making (Brzezińska & Piotrowski, 2013). However, Field (2012) argues that students transitioning to university "are agents within a bounded environment, in which they encounter persistent inequalities in aspirations, education and employment" (p. 6). For instance, when faced with the transition to university, students often feel their expectations were unmet; a feeling that may exist beyond school and into the workforce. Field (2012) also maintains, "studenthood is not merely a transitional process, but can also be understood as a transitional identity" (p. 10). Learning about one's own identity through the process of transition, as highlighted in conceptualizations of roles and role transition, is central to the experiences students face in transitioning to university.

The purpose of this thesis is to explore the transition to university in an effort to understand and better support the needs of incoming students within a Canadian context. There are two guiding research questions: (1) What is the impact of a pre-university course, *Leg UP*, on participants' academic achievement and adjustment variables when

compared to non-participants? And (2) What are the lived experience of first- and second-year Health Science students' transition to the University of Western Ontario? The multifaceted approach taken in this exploration conceptually mirrors that of the transition. The multi-method approach to this research is complex, rich in detail, contributing to the ever-growing literature on student transitions to higher education. The transition to university is also complex, encompassing many contextualized micro-transitions, all contributing to the student's formation of identity.

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Chapter 2

2 Challenges and supports in the transition to university: A framework for development of a discipline-specific, pre-university online course

Students' transition from high school to post-secondary education has been a well-investigated phenomenon among educational researchers. It is well established that students' first year experiences greatly impacts their decision to complete their degree (Trotter & Roberts, 2006; van der Meer, Jansen, & Torenbeek, 2010). While some students meet this transition period with ease, others report increased academic demands that contribute to their development of stress, anxiety, and/or depression (Waters, 1992). Researchers have explored many facets of transitioning to post-secondary education. In a prominent review of the literature on student non-completion at the post-secondary level, Yorke (1999) summarizes reasons for student withdrawal into three main themes: "students expectations are not met; students find they have chosen the wrong program; and the student lacks commitment to, or interest in, the subject" (p. 26). The question is: how can institutions support incoming students in managing their expectations, while exposing them to their chosen program (and subject matter) before starting university? This chapter seeks to answer this question in part by providing an outline of the pre-university online course, *Leg UP: An Introduction to Health Across the Lifespan*, and its intent to assist student transition to university. This chapter will provide the structural framework used to develop an online module that provides a mechanism to blend a student's inherent interest in their major of choice with important university readiness skills. In the derivation of this structural framework, the literature surrounding common challenges first-year students face in the process of transitioning to university will be examined. Then, a summary of transition strategies frequently employed at institutions will be provided.

2.1 Challenges in the transition to university

2.1.1 Time management and self-directed learning

One challenge encountered by first-year students in transitioning into post-secondary education is associated with effective time management skills. In particular, the skills “related to organizing and keeping up with a range of study tasks” (van der Meer et al., 2010, p. 778). Transitioning to a more self-directed and individual approach to completing school related tasks is part of the transition students make when they enter post-secondary education. Often, students arriving at university are not prepared for this level of independent learning (Bowman, 2017). First-year students may begin to falter at approximately six-to-eight weeks into the term, as they may feel the pressure of work needing to be done without being given explicit direction (Bowman, 2017; Brinkworth, McCann, Matthews, & Nordström, 2009; Kift & Nelson, 2010). Some students, however, anticipate there will be considerably more independent work at the post-secondary level. Accordingly, these students value having good organizational and time management skills (Richardson, King, Garrett, & Wrench, 2012). Developing effective time management skills, along with solid study strategies and habits, is crucial to first year success (Krause & Coates, 2008), and is associated with effective acquisition of both generic competencies, such as information gathering and problem-solving abilities, and discipline-specific competencies, such as course-related knowledge (Meng & Heijke, 2005). In a survey of over 1,000 faculty members throughout the United States assessing the issues surrounding transitioning to post-secondary institutions, 86% of respondents agree that the most difficult transition challenge for students is developing good time-management skills (Tonn, 2006). Given the literature on time management skills amongst new undergraduate students, it is evident that this is an important skill for students to grasp early on in their post-secondary studies.

2.1.2 Poor health behaviours

The “freshman 15”, a popular term referring to a 15-lb weight gain experienced by some first-year students, provides the context of this next challenge faced by new students. Compared to their similar-aged counterparts in the workforce, “university students tend

to report decreases in physical activity, increases in recreational drug use, and poor dietary practices” (Richardson et al., 2012, p. 87). Richardson et al. (2012) also note that these negative health outcomes are further exacerbated in students who come from low-socioeconomic areas, are considerably older than their peers, or are the first of their family to enter post-secondary education. In addition, this transition marks a noticeable change in problematic alcohol drinking behaviour (Hingson, Zha, & Weitzman, 2009; Sher & Rutledge, 2007). In a study assessing the physical activity of students during their transition to university, Bray and Born (2004) note a significant decline in average frequency of physical activity per week during the transition as compared to pre-transition. Another adjustment to post-secondary life often cited in the literature that is associated with student stress during the transition to university is disordered sleep patterns. Specifically, first-year students are more likely to exhibit poorer sleeping patterns than second-year students (Lev & Shulman, 2012). Clanton, Kelly, and Kelly (2001) reported significantly lower overall grade-point averages amongst short-sleeping students, and Lund, Reider, Whiting, and Prichard (2010) found that poor-quality sleepers were more likely to report physical and psychological health problems when compared to good-quality sleepers. The perceived lack of sleep felt by most new post-secondary students can create a ripple effect for other stressors in their lives that can negatively affect their first-year experience. Other issues beyond disordered sleeping and time management are apparent in the often-difficult transition to post-secondary education. Poor health behaviours develop in transitioning to post-secondary education and can continue into a student’s life beyond academia (Richardson et al., 2012).

2.1.3 Psychosocial and emotional changes

Psychosocial changes are also displayed in transitioning to post-secondary education. Some students embrace the increases in autonomy and self-directed learning and use failures as future opportunities for success. For others this shift is often emotionally charged, where the fear of failing alone can bring about anxieties and threats to one’s self-esteem (Ruberman, 2014). Richardson et al. (2012) reports that upon being asked to rate changes in their mental health state in their first year at university, 63% of students “rated their mental health as changing for the worse and describes university as being

worse than they had expected” (p. 87). The roller-coaster of emotions students experience can be disorienting; feeling positive emotions of excitement and anticipation can be quickly followed with loneliness and confusion (Smith & Hopkins, 2005). Peer and familial support can help alleviate these overwhelming feelings of stress and anxiety, however this transition also comes at a time when students are often physically distant from their family and friends. Students report difficulties in having their past friendships strained and they perceive a need to quickly create new ones (Terenzini et al., 1994). In addition, the loss of parental presence and support, and the convenience of having readily available meals, money, and clean laundry (Jellinek, 2006) can further worsen the stress of losing their support network. Factors related to the feeling of belonging to the student life and culture are also apparent in the transition to university (Palmer, O’Kane, & Owen, 2009). Especially for non-traditional students, the uncertainty about being able to fit in with peers given differences in age, class, or gendered identities can make for a transformative emotional experience (Christie, 2009).

2.1.4 Unrealistic expectations

Envisioning what life will be like during their post-secondary experience can be exciting for incoming students. Campus tours highlight infrastructure and the vast array of institutional resources available, but does this help or hinder the potential student in managing their expectations of university life? Students often inaccurately predict what their student experience will be like, which can lead them to struggle in their transition to university (Briggs, Clark, & Hall, 2012; Smith & Hopkins, 2005). Stern (1966) uses the term “freshman myth” to describe the “naïve, enthusiastic, and boundless idealism” (p. 411) students have about their transition to university. Enthusiasm can, however, also serve as a strong motivator for the first year student. Motivation is identified as being important for the success of first year mathematics students, where the students’ attitudes and beliefs regarding mathematics greatly impact their learning performance (Anthony, 2000; Bengmark, Thunberg, & Winberg, 2017). The importance of being prepared academically is also highlighted in the literature on transitions to university. The expectation of academic preparedness creates a disconnect between what the student thinks is required and institutional standards. Several studies have suggested a positive

correlation between higher level secondary school achievement with first year course achievement (Bengmark, Thunberg, & Winberg, 2017; Kajander & Lovric, 2005; Rylands & Coady, 2009). Entry averages from secondary programs are exceedingly high leading students to believe that since they met the academic requirements for university, they are academically prepared. In a 2015 Harris Poll commissioned by The JED Foundation, Partnership for Drug-Free Kids, and The Jordan Porco Foundation, all three initiatives geared towards raising awareness of student mental health, discovered that 70% of high school students believed their academic performance exceeded their peers in their final year of high school (The Nielsen Company, 2015). Fetcher (2013), however, notes the difference between academic preparedness and university readiness, where the latter encompasses behavioural aspects of the student in relation to academic success and in addition to their academic skills. That is to say, students may feel prepared for the transition but in reality lack the behaviours or habits central to success in the university environment. Academic boredom is an affiliated challenge of academic preparedness, where first-year students without a strong academic background and inadequate self-directed learning skills are likely to set lower goals for academic achievement (Longden, 2006; Ramirez-Arellano, Acosta-Gonzaga, Bory-Reyes, Luis, & Hernández-Simón, 2018). In an evaluation of a transition program put forth by Vinson et al. (2010), preventing problematic academic boredom was central to the program's aim. In interviewing past participants, the researchers suggest feelings of academic boredom did originate from unmet expectations, however the expectations about university-level academics, such as an increase in workload, are not of primary reason for withdrawal from university activities. Instead, it is the "undemanding aspects of university life which may disconfirm student expectations and lessen the likelihood of engagement with educationally effective practices" (p. 140). Examples of 'undemanding aspects of university life' suggested by Vinson et al. (2010) include study skills, goal setting, time management, and learning to learn in the new environment.

2.1.5 The new environment

For many students, entering a new academic environment also marks the beginning of life in a new physical, social, and emotional environment. While starting a new program

at a new institution, students often leave home, physically separating themselves from friends and family; this new environment calls for adaptation (Clark, 2005). Students need to create a new social support network with new friends. Wilcox, Winn, and Fyvie-Gauld (2005) address the importance of making compatible friends, noting that it is central to student retention. The creation of this crucial social support network begins with a student's living arrangement, as for many students, friends made through living arrangements are usually the first people met upon arrival to university and can help ease the stress of this transition. In shifting from home to university, some students may struggle to feel like they 'belong' at the institution. Palmer, O'Kane, and Owens (2009) suggest this feeling can result from a "betwixt" space students fall within while transitioning from their home to university. This idea traces back to the anthropological concept of liminality, which is defined as the passing through of a transitional phase (Andrews & Roberts, 2015). Liminality relates to the "symbolic processes and ritual conventions that structure and define key moments of social transition, or 'rites of passage'" (Andrews & Roberts, 2015, p. 131). How one passes through these crucial 'in-between' states can help shape structure or routine later on.

2.2 Transition strategies

One of the five priority areas of The Council of Ministers of Education, Canada (CMEC) focus on regarding post-secondary education includes student transitions, highlighting the importance of research regarding the transition both to post-secondary and out of post-secondary into the workforce. In 2017, the CMEC developed a Reference Framework for Successful Student Transitions (Council of Ministers of Education, Canada, 2017). This framework and associated online tools assist stakeholders in the creation, adaption, or evaluation of transition resources, ensuring students are adequately supported in their transition to post-secondary education. There are numerous ways in which institutions support their incoming students. Many institutions recognize the severity of the issue and are committed to the successful transition of their students. Additionally, it has become increasingly common for institutions worldwide to designate an office for the first-year experience (Cunnane, 2012), whose portfolios may include one or many of the transition strategies explored below.

2.2.1 First-year seminars

Barefoot and Fidler (1996) document the first-year seminar, also generally referred to as a freshman course or extended orientation, revealing its roots as early as the late 19th century with the first documented extended orientation beginning at Lee College in Kentucky in 1882. From then, the number of first-year seminars declined due to their perceived lack of academic rigor (Schnell & Doetkott, 2003) until the mid-1970s where colleges and universities observed the need to ease the transition of students to post-secondary. This was largely due to “shifts in the entering student population, a commitment to access for students previously excluded from higher education, the alarming student dropout rate which peaks between the freshman and sophomore year, [and] a renewed concern about the quality of undergraduate education” (Barefoot & Fidler, 1996, p. 5). In the history of first-year transition courses, “University 101” put forth by Dr. John N. Gardner at the University of South Carolina in 1974 stands out as a gold-standard by which university transition courses are measured (Roach, 1998; Schnell & Doetkott, 2003). University 101 started as a for-credit, letter-graded elective offered in both the fall and spring semesters and is now expanded into four courses aimed at helping students succeed academically. The goal of University 101 is to “foster student success, learning and engagement by providing academic courses, leadership opportunities, and instructor development in support of students’ transition into, through, and out of the university” (“University 101 Programs - About Us,” 2018).

In the United States 2017 National Survey of the First Year Experience, it was found that 73.5% of responding institutions offered some form of first-year seminar (Keup, 2018). In an influential review of programs and experiences that affect the post-secondary student, Pascarella and Terenzini (1991) suggest that “the weight of the evidence suggests that a first-semester freshman seminar is positively linked with both freshman-year persistence and degree completion” (p. 419). These claims of success were examined by Sidle and McReynolds (2009) who conducted an *ex post facto* controlled study determining the relationship between participation in a first-year seminar with retention and academic success. They retroactively grouped students based on similar entrance averages in relevant courses and demographic information in an attempt to

isolate the effect of the first-year seminar alone. Among the findings of their study, they suggest that students who participated in the first-year seminar were more likely to continue their enrollment and earned higher averages (Sidle & McReynolds, 2009).

These seminars, usually for credit, boast the engagement of students with faculty members to address the transition to university. However, these programs that rely heavily on faculty or staff as leaders may also limit peer-to-peer social support that has been previously identified as a possible aid to psychosocial adjustment in the first year (Mattanah et al., 2010). Permzadian and Credé (2016) considers an alternate perspective, noting these seminars can provide students with effective coping resources, which include peer mentoring programs offered at the institutional level. The types of first-year seminars offered can vary but generally include extended orientations, academic-based content, professional or discipline linkages, skill building (e.g. time management, research and writing, accessing campus resources, communication with faculty), or some combination of the aforementioned (Keup, 2018; Sobel, 2018). Barefoot and Fidler (1996) offer nine characteristics of “successful” seminars. They are deemed successful due to their long-standing institutional support. From their widely-cited *1994 National Survey of Freshman Seminar Programs*, successful seminars contain some or all of the items listed below:

- They carry academic credit.
- They are centered in, rather than tangential to, the first-year curriculum serving as part of general education, core, or major requirements.
- They include academic content – often extra- or interdisciplinary content that is woven into essential process elements such as study skills, library use, writing, etc.
- Faculty are involved in all stages of program design and instruction.
- Student affairs professionals are also involved in all stages of program design and instruction.
- Instructors are trained in basic methods of group facilitation and active learning pedagogies: Course “process” becomes as important as course “content”.

- Instructors are paid or otherwise rewarded for teaching the seminar
- Upper-level students are involved as peer leaders or co-facilitators
- Courses are evaluated on a regular basis, and results of this evaluation are made available to the entire campus community. (Barefoot & Fidler, 1996, p. 61)

A reoccurring topic brought up in the literature involving first-year seminars is the challenge in recruiting and supporting the seminar facilitators; administrative arrangements being the most notable reason for dissuading those interested in participating. Offering first-year seminars can also be costly, with estimates of offering these seminars across the various institutions in the United States alone reaching well into the hundreds of millions of dollars (Perzadian & Credé, 2016). Facilitators value having a supportive and energetic community of instructors that will encourage the success of the program. The belief in the program aids in the communication of the program's value, which helps attract students to the program (Sobel, 2018).

2.2.2 Orientation weeks

In an effort to match the excitement of incoming students, many institutions offer a week of high-energy social activities called orientation weeks, fresher weeks, or frosh weeks. The goal of this shorter orientation program is to create a positive introduction to the institution, elicit interest, and “encourage feelings of comfort and connection” (Collins & Dodsworth, 2011, p. 1). While this time is used to familiarise students with their new environment, the acquisition of new information about the campus can be ‘dull’ when the information exchange is passive and the short time period may not be sufficient for the development of new peer groups (Laing, Robinson, & Johnston, 2005). Orientation week may also pose a risk to student health as daily drinking or drinking more than usual is viewed as acceptable due to relaxed social norms during this period (Griffin, Bengry-Howell, Hackley, Mistral, & Szmigin, 2009; Riordan, Scarf, & Conner, 2015). Riordan, Scarf, and Conner (2015) suggest that the new student is especially vulnerable as they are pressured to develop a new peer group and may maintain subsequent social drinking practices throughout the academic year.

2.2.3 Mentorship programs

Group-based programs provide another support used in aiding the transition to university. An evaluation of the effectiveness of the small group experience on social adjustment to university is addressed in a frequently cited study by Oppenheimer (1984). These small groups of six students were led by graduate students in social work, clinical psychology, or counselling. The groups met on a weekly basis and were open-ended. He established a positive effect of group participation in those who were categorized as “vulnerable to transition stress” (Oppenheimer, 1984, p. 45). This sub-group was comprised of those students who demonstrated higher levels of social anxiety on a preintervention questionnaire. Pratt and colleagues (2000) furthered the research by Oppenheimer (1984) by conducting a similar study with larger groups (eight to ten students) and structured themed sessions. They found a statistically significant effect of participation in the group discussion sessions on adjustment to university. These students also missed fewer classes and reported greater levels of social support than their non-participating control group counterparts (Pratt et al., 2000).

Another example program geared towards easing the social adjustment to university through small group sessions is the T2U program at Wilfrid Laurier University (Pancer, Pratt, Hunsberger, & Alisat, 2004). This program involves weekly meetings of small groups of approximately 10 students led by a graduate student or upper year undergraduate student during the first term. The results of the study favoured the students who participated in the T2U program, noting higher scores on a standardized questionnaire assessing adjustment to university and significantly different withdrawal rates between groups (28% withdrawal from the control, compared to 7.8% from the participating students; Pancer et al., 2004). These studies are often criticized for relying too heavily on the context of the institutions, limiting the transferability of findings to other institutions. These effects may not hold true for larger four-year universities where students tend to limit their social involvement (Mattanah et al., 2010). This can put them at risk of damaging their concept of “self” and potentially limiting their educational attainment (Mattanah et al., 2010; Pascarella & Terenzini, 2005). Where positive peer relationships have been linked to higher self-esteem, the effect on self-concept is more

complex. Within the context of students, the influential work of Shavelson, Hubner, and Stanton (1976) further categorized self-concept into academic self-concept and non-academic self-concept. Where the former is strongly related to academic achievement and the latter is further sub-divided into categories of social, physical, and emotional self-concept. Accordingly, academic peer interactions and non-academic peer interactions can affect specific facets of self-concept. Leung, Marsh, Craven, Yeung, and Abduljabbar (2012) investigated the effects of an academically oriented peer support program and a socially oriented peer support program on the many facets of self-concept. The findings of their study support the concept of self-concept development in peer support programs, suggesting the intention of the program, whether it be academic or socially oriented, will affect academic or non-academic facets of self-concept accordingly. Thus, an academic oriented peer support program can affect academic self-concept, which is reflected in academic achievement (e.g. grade attainment).

2.3 Rationale for *Leg UP*

The potential issues students may be confronted with in the transition to university can shape their experiences to follow. Of those potential issues, those relating to the failure to adapt to the new learning environment, holding unrealistic expectations about university life, development of poor health behaviours, and various psychosocial and emotional changes relating to the change in environment and social atmosphere were discussed here. It is important to educate incoming students of the potential issues they may face, as well as equip them with the tools and skills necessary to combat these issues should they arise. Pancer, Pratt, Hunsberger, and Alisat (2004) advocate that institutions have failed their incoming students with current orientation practices offering “little more than a few information sessions interspersed among parties and pep rallies during frosh week” or “courses [focusing] primarily on academics and do very little to help students cope with personal and social stresses” (para. 12). As a result, institutions have since invested in the understanding and support of students transitioning to post-secondary education. Of the initiatives offered to enhance the first year student experience, many supports were discussed here, including first-year seminars, orientation weeks, and mentorship programs. There is, however, limited discussion on how to weave the student’s chosen

discipline-specific content within university skill development. In a study exploring the transition experiences of first-year nursing students, Prymachuk, McWilliams, Hannity, Ellis, and Griffiths (2019) argue that university readiness skills should be weaved within the curriculum, as opposed to stand-alone activities, to better support the student in transition. By situating university skill development in the student's context, this will further emphasize the importance of developing these skills in preparation for university. This thinking led to the creation of *Leg UP: An Introduction to Health Across the Lifespan*, a pre-university online course for students admitted to the School of Health Studies at the University of Western Ontario to complete the summer before they begin their university studies.

2.4 Description of *Leg UP*

Leg UP began as a six-week, pre-university online course. The course begins in mid-June, opening week-by-week until all six weeks are active. The course remains open until classes begin in September. Students who accept their offer of admission to Western's Bachelor of Health Sciences program (BHSc) delivered by the School of Health Studies are invited to participate in *Leg UP*. The course exposes students to a variety of different factors that will ease their transition to university life. The timing (summer before beginning in September) was chosen as it aims to give students a glimpse into university life before starting. The flexibility of the online environment also allows students who hold summer jobs or who are away to access the materials at a time that best suits their schedules. *Leg UP* includes an introduction to important health-related issues students will learn in their first year Health Science courses and exposes them to health and health care topics introduced during their program. The inherently interesting subject matter is intended to "hook" students in completing tasks aimed at enhancing university-level skills. Each week of the course is formatted to help develop solid study habits, offer career trajectories vignettes with "day in the life" segments on different health professions, and introduce tips on how to maintain healthy physical and mental wellness throughout their years in university. The description of each week's content is as follows:

Week 1 – An introduction to health. The first week of *Leg UP* seeks to answer the question – "what is health?" This section explores the social and personal determinants of

health and why they are so important for any topic – health related or seemingly otherwise. This section also encourages the critical evaluation of different definitions of health and reflection on why fluctuations in health definitions are relevant.

Week 2 – Childhood and adolescent health. The second week of *Leg UP* dives into current health issues involving our youth. The student contributes to the dialogue on various “hot topics” in childhood and adolescent health, such as the immunization debate and the childhood obesity epidemic.

Week 3 – University student health. The third week of *Leg UP* explores a topic that is useful in its application to the student’s day-to-day life as a university student. The student investigates and reflects on relevant health issues at this stage of life, including aspects of mental, social, and physical health, as well as learn some healthy habits he or she can practice in his or her university years.

Week 4 – Adult health and health occupations. In the fourth week of *Leg UP*, the student will be able to answer the question: “what can I do with my Health Science Degree?” Various health occupations are showcased; students also have the opportunity to discover some current “hot topics” in the Canadian health care system. In this section, students also submit a mock email asking for a letter of reference, in preparation for their next steps towards their health-related careers.

Week 5 – Late adult health. In the fifth week of *Leg UP*, the student looks at aging through the perspective of both an aging adult and a health care worker. Concepts like healthy aging are covered, and some common myths about aging are also debunked.

Week 6 – The future of health care. The final week of *Leg UP* takes a glimpse into the future of our health care system. Electronic medical records, health apps, and improved accessibility to health care are just a few examples of the topics covered in this week.

The six-week online offering is intended to introduce students to the program they have registered for at Western by offering a glimpse into the program’s module courses. The topics for each of the six weeks correspond to a course offered in the program. Table 2 outlines *Leg UP*, week-by-week, with the associated module course. While Week 3 of

Leg UP has no explicit course associated with it, this week's content is devoted to promoting the health of undergraduate students, touching on concepts covered across multiple courses in the program.

Table 2 *Leg UP* weekly course content with associated module courses.

Week no.	<i>Leg UP</i> weekly content	Course(s) associated
1	An introduction to health	Personal Determinants of Health Social Determinants of Health
2	Childhood and adolescent health	Health Issues in Childhood and Adolescence
3	University student health	
4	Adult health and health occupations	Health Occupations
5	Late adult health	Health Issues in Aging
6	The future of health care	Future of Health Care

2.5 *Leg UP* for university skill preparation

One of the driving forces behind *Leg UP* is its alignment to a typical university course. In exposing students to content they would later see in their university courses, it was also necessary to expose them to activities and assessments they would encounter in their university courses. Each week's content encased a university skill students would develop or enhance by interacting with the content. The skills selected were deliberately chosen as they often were brought up in the literature as areas for improvement by new university students. These skills are contained within the University Toolkit. The University Toolkit items by week are as follows:

Week 1 – Online communication skills. Students participate in numerous online forums and are directed to resources aimed at reinforcing online etiquette.

Week 2 – Multiple choice assessments. Students engage with the content and are later assessed by a multiple choice quiz. The multiple choice questions are generally true/false, unique options, and multiple-multiple style (e.g., “all of the above”, “a and c only”) Strategies for answering multiple choice questions are presented, such as handouts on how to prepare not only for examinable content, but also how to prepare for the testing method itself.

Week 3 – Time management. An interactive mock first year weekly schedule is presented in Figure 1. Students are instructed to drag and drop typical activities of a first year student (e.g., class and studying time, volunteer time, social time) into the schedule. Strategies for time management are also reviewed.

	Monday	Tuesday	Wednesday	Thursday	Friday
6:00-6:30am					
6:30-7:00am					
7:00-7:30am					
7:30-8:00am					
8:00-8:30am					
8:30-9:00am			Elective 3 lecture		
9:00-9:30am					
9:30-10:00am		Biology lab			
10:00-10:30am		9:30-10:30			
10:30-11:00am	Biology lecture		Biology lecture	Health science lecture	
11:00-11:30am	10:30-11:30		10:30-11:30	10:30-12:30	Elective 2 lab
11:30-12:00pm		Health science lecture			11:00-1:00
12:00-12:30pm		11:30-12:30			
12:30-1:00pm				Health science seminar	
1:00-1:30pm				12:30-1:30	
1:30-2:00pm					Elective 3 lecture
2:00-2:30pm					1:30-3:30
2:30-3:00pm	Elective 2 lecture				
3:00-3:30pm	2:30-4:30				
3:30-4:00pm					
4:00-4:30pm					
4:30-5:00pm					
5:00-5:30pm					
5:30-6:00pm					
6:00-6:30pm					
6:30-7:00pm					
7:00-7:30pm			Elective 1 lecture		
7:30-8:00pm			7:00-10:00		
8:00-8:30pm					
8:30-9:00pm					
9:00-9:30pm					
9:30-10:00pm					

Drag and drop the following activities into your schedule. This template mimics a typical first year Health Science student's schedule. You will need to fit the following things into your schedule, on top of the courses you are enrolled in.

- One workout at least 3x per week
- Breakfast, lunch, and dinner each day
- At least 3 hours of study time PER COURSE
- Volunteer and/or community work
- Social time with friends
- Approximately 1-2 hours a week for a club commitment

Workout

Breakfast

Lunch

Dinner

Study Time

Volunteer Work

Social Time with Friends

Clubs

SUBMIT

Figure 1: Time management interactive activity.

Week 5 – Writing at the university Level. Students are to submit a short (300 word) summary of an article related to the weekly content. They select an article from a list. This activity is submitted and reviewed by the *Leg UP* coordinator who provides feedback on content and language and suggests areas to expand and/or improve if necessary.

Week 6 – Reading scholarly articles. The final toolkit item is addressed through an interactive activity where students are presented with a clickable article. Screenshots of this activity and the quiz can be found in Figure 2. Students learn about the sections of a standard research article and are later quizzed on the components they have just discovered.

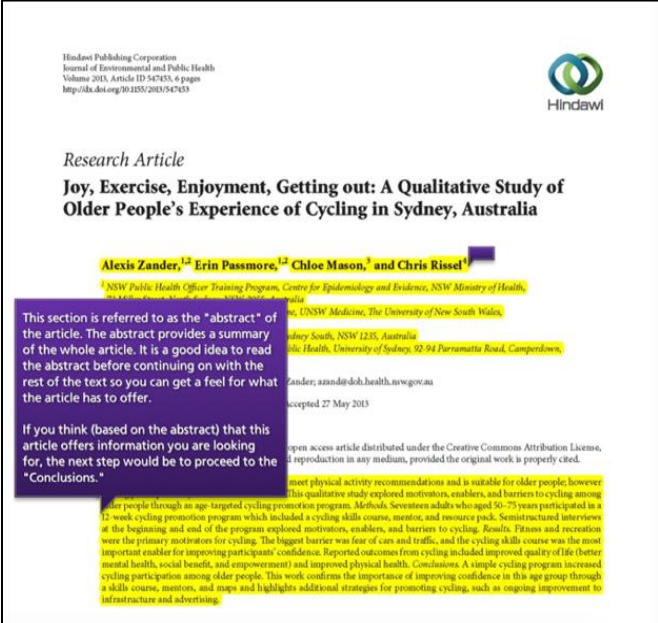
	<p>Which part of the journal article offers some background information on the topics studied and reveals how the author plans to approach the topic?</p> <ul style="list-style-type: none"> <input type="radio"/> Ethical Approval <input type="radio"/> Methods <input type="radio"/> Discussion <input type="radio"/> Introduction <input type="radio"/> Conclusions <input type="radio"/> Results <input type="radio"/> Abstract <input type="radio"/> References
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Figure 2 Reading a research article interactive activity with quiz.

Another component to *Leg UP* is the School of Health Studies Dashboard. Much like the University Toolkit, the Dashboard houses topics relating to university, but that are specific to the School of Health Studies at Western. The School of Health Studies Dashboard topics are as follows:

Week 1 – Understanding a syllabus. A similar concept to the Week 6 University Toolkit activity, the students are presented with a clickable syllabus and later quizzed on the sections covered.

Week 2 – Managing expectations. This section addresses the differences between high school and university assessments and introduces the student to the university grading scheme, reminding students that while their averages are likely to be lower than their

high school averages, their university-based performance could still be considered quite satisfactory.

Week 3 – Difference between degree types. As seen in Figure 3, this interactive activity takes students through the degree requirements of each Health Science module.

The figure displays two screenshots of an interactive web interface for degree requirements. The left screenshot shows the 'Major' tab selected, with instructions: 'Click on the Degree Modules above to learn about the course requirements for each degree.' and 'Click on "Antirequisites" to learn about statistics courses from other departments that overlap with Health Science statistics courses.' Below this, under 'University Degree Requirements', are six checklist items: 'Completion of 5.0 first year credits, with no more than 7.0 first year credits (1000-1999)', 'Completion of 20.0 course credits', 'Completion of 1.0 Category B course.', 'Completion of 2.0 essay course credits, 1.0 at the 2000 level +', 'Minimum 60% average on module courses', and 'Minimum 60% average on the 20.0 course credits completed for graduation'. The right screenshot shows the 'Major' tab selected, with a grid of course requirements for Years 1 through 4. A tooltip for 'Years 3 and 4' states: 'These courses can be taken in either your third or fourth year, or a combination of both.' The grid shows course codes for each year, with some cells containing question marks.

Figure 3 Difference between degree types interactive activity.

Week 4 – Health care career support. This section provides students with resources for health care career support at Western, with topics ranging from “what can I do with my degree in Health science?” to where academic counselling can be found within the faculty.

Week 5 – Experiential learning. This section contains information about how to diversify the undergraduate degree with community-engaged learning, research positions, involvement in clubs, or volunteer opportunities.

Week 6 – Continuing a healthy transition to Western. As the culminating dashboard topic, students are presented with a list of Western resources they may find useful in their first year.

The embedding of toolkit and dashboard items within inherently interesting content pertaining to the student's chosen discipline to pursue grants the perception of skill development as application-focused, as opposed to didactic instruction. The learning-by-doing method of skill development offers the student a meaningful opportunity to learn these crucial university skills within relevant, interactive content (Kong, Chen, Huang, & Luo, 2017).

2.6 Creating *Leg UP*

The idea of *Leg UP* was made a possible by a large team dedicated to providing an interesting experience to incoming students. The content for *Leg UP* was created by content developers, the content was made interactive and positioned online by a group of local instructional designers, and the project was coordinated by two project managers. Once created, *Leg UP* was offered to a local group of student mentors who served as course evaluators.

2.6.1 Content developers

In deriving the content for *Leg UP*, two upper year Health Science students were hired to assemble the content for the course. Each content developer was responsible for two weeks' worth of content and peer reviewing the other developer's work as well. Since *Leg UP* is intended to provide an introduction to the four-year degree in Health Science, it was important to hire students who were either just finishing or in the final stages of their degree. These students recounted their coursework in envisaging interactive activities for the content. They also reached out to their former Health Science instructors to help focus their efforts on the highlights of their respective courses. These instructors served the role of subject matter experts who were consulted at various points in the course creation to ensure comprehensiveness and accuracy of content. Each weeks' worth of content took approximately one month to assemble. The two content developers met with the project managers biweekly to ensure timely progression and to discuss options for interactive content delivery. These meetings were key to the development process as the team had an opportunity to exchange views on what types of activities and content would be well-suited for the course.

2.6.2 Instructional designers

The instructional designers actualized the activity ideas envisioned by the content developers. The Instructional Technology Resource Centre (ITRC) at Western assigned a team of 10 students to serve as instructional designers for *Leg UP*. The ITRC supports faculty at Western who are looking to add technology to their courses. The instructional designers met with the project managers on a biweekly basis to ensure the activities created aligned with the initial vision of the project. The instructional designers created graphics, videos, and interactive activities in Articulate Storyline for the course to ensure it was engaging. They were also responsible for overseeing any technical concerns with the course in operation throughout the summer.

2.6.3 Project managers

The two project managers were responsible for overseeing the creation and delivery of *Leg UP*. The project managers were graduate students in the same faculty. They met with the instructional designers and content developers to ensure timeliness and quality of the course. They were also the point-of-contact for marketing and inquiry of *Leg UP*, meeting with students at summer academic orientation to raise awareness of the course. The project managers also facilitated the course's offering by providing feedback for submitted activities (e.g. responding to discussion board posts and offering feedback to written work) and keeping track of course completers.

2.6.4 Course evaluators

Before offering *Leg UP* to incoming students, the course was evaluated by approximately seven students who were leaders and academic mentors to first year students. These evaluators were asked to provide feedback on *Leg UP* from the perspective of mentors who are intimately aware of the needs of first-year students. While they did not evaluate *Leg UP* for content, as they are from a variety of faculties, they assessed the level of engagement of the course as well as offered feedback for resources that may have been missed in the creation process. The course was also evaluated on an on-going basis by the content developers, as noted above.

2.6.5 Incentivizing participation

Leg UP is an optional, pre-university course offered in the summer before starting at Western. The content of the course should be inherently interesting to the incoming student, since they have selected Health Science as their academic program of choice. However, the drive to complete this type of optional activity during their spare time in the summer months may require additional incentive. In the first two years *Leg UP* was offered, students who completed mandatory requirements were entered into a draw to win one of four \$250 gift cards to the campus book store. In the third year of *Leg UP*, a grade incentive was introduced, where completing students would receive up to a 2.5% bonus grade they could apply to one of their first year Health Science courses.

What was considered a “completed course” was not necessarily every activity, rather completion of a selection of activities throughout the module that were deemed most important for university skill development. In the first offering of *Leg UP*, course completion was based on the participation of three activities per week. It followed an “all or nothing” approach to completion versus non completion. In the subsequent years, the three activities were divided into gold, silver, and bronze levels of completion. Bronze level of completion was one activity per week, where this activity covered the university toolkit item housed within the health topic for that week. Silver level of completion was two activities per week; the bronze activity and another activity selected for its reinforcement of the subject matter. Finally, the gold level of completion was three activities per week. The gold level was silver level activities plus an additional activity that captured an in-depth understanding of the topic. With regards to incentives, completion was based on reaching gold level for all weeks of *Leg UP*.

We also deliberately sought out to incentivize students to participate based on exclusivity. *Leg UP* was the first discipline-specific, pre-university course offered at Western and was exclusive to the School of Health Students in the Faculty of Health Sciences. This notion was reiterated to students in weekly online communication. Additionally, *Leg UP* was housed on Western’s learning management system, OWL, so this offered students the unique opportunity to explore the functionality of OWL before courses began. The colour theme chosen for the course mirrored the visual identity of

Western's online presence. A mascot was even developed by an instructional designer that helped brand *Leg UP* as being part of Western, as shown in Figure 4. For some students, this became one of the first opportunities to foster a sense of belonging in this community.



Figure 4 *Leg UP* mascot

2.7 Conclusion

This paper serves as a framework for the creation of *Leg UP: An Introduction to Health Across the Lifespan*, Western's first, discipline-specific, pre-university online course. The transition to university presents a period of time in which students are adapting to a new environment while they are simultaneously experiencing a loss of their familiar support system. Despite the ubiquity of transition programming offered across institutions in the United States, the 2015 Harris Poll commissioned by the JED Foundation, Partnership for Drug-Free Kids, and the Jordan Porco Foundation report that approximately 61% of students wish they were better prepared to deal with the challenges they faced in their transition to post-secondary (The Nielsen Company, 2015). One way of easing the transition to university is through transition programming in which a student participates before starting post-secondary (Cooper, Ashley, & Brownell, 2018). By offering *Leg UP* in the summer before starting university, students can become aware of potential struggles they may face in their transition to university (e.g. unrealistic expectations), and adapt their current practices (e.g. managing expectations) to better their transition to university. *Leg*

UP was derived from a perceived gap in the types of programs that exist. The concept of *Leg UP* is simple: deliver exclusive access to university-level content and university-readiness skills to students the summer before starting university in September in a manner that is exciting and engaging. The *Leg UP* model can be adapted across faculties and institutions and may in the future become the new standard for university transition programs.

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Chapter 3

3 Evaluation of a university transition course for its effectiveness in offering students a “*Leg UP*” to their first year

For many, the transition to post-secondary education marks the end of adolescence and beginning of adulthood. This presents a unique period of time in which significant life changes are accompanied by a loss of a familiar support system to effectively manage these changes (Tett, Cree, & Christie, 2017). This may be the first time the student lives on their own, away from family. This may also be the first time taking the bus, first time buying groceries, or the first time living with similar aged peers (e.g., in the case of only children living with roommates for the first time). On top of navigating the ins-and-outs of adulthood, students are also left to decipher the intricacies of higher education (Kreig, 2013). They need to establish the requirements for their classes, develop or fine-tune existing important learning skills, and create a new friend group. They are also tasked with mapping out the extensive resources available on campus and decide which may be relevant or useful to their personal success in university (Rickard et al., 2018).

3.1 A review of existing transition supports

There has been much studied on existing transition supports. Orientation Week (also known as Fresher Week or Frosh Week) has become synonymous with the transition to university social life. This ubiquitous, high-energy transition support, while activities contained within vary from institution-to-institution, boasts a method of acclimatizing students to their new environment and peer group (Collins & Dodsworth, 2011; Laing, Robinson, & Johnston, 2005; Riordan, Scarf, & Conner, 2015). However, Orientation Week has also earned the reputation of contributing to the normalization of university drinking (Riordan et al., 2015) and efforts have been made to combat the paradoxical issue of an alcohol-free event garnering attention for participants drinking excessively (Kauri, 2014; Leontini et al., 2015). Such efforts include the use of mobile interventions to prevent risky drinking behaviour during Orientation Week and in the first semester. In a study by Riordan, Conner, Flett, and Scarf (2015), the use of automated intervention

text messages to promote moderated drinking during Orientation Week was evaluated. Students in the experimental group received intervention messages (e.g. “Think about your mates when you drink, you can ruin their nights too”) in the evening of each day during Orientation Week. For female participants, receiving these daily messages resulted in statistically significantly less drinks consumed during Orientation Week and throughout the first semester. Orientation Week, in all forms, largely focuses on the transition to university life but many students describe this transition effort as imperfect, often offering an unrealistic view of the day-to-day undertakings of a university student (Cossy, 2014).

Peer mentoring and learning communities, where upper-year and new students share learning strategies and may provide informal emotional support, offers promising institution-led programs to support both academic and social transitions (Smith, MacGregor, Matthews, & Gabelnick, 2004; Xu, Solanki, McPartlan, & Sato, 2018). Foy and Keane (2018) present a peer mentoring scheme at Queen’s University Belfast that partnered new students with experienced students to create supportive, informal relationships. They report 85% of first-year students who participated in the peer mentoring program found it to be useful, specifically commenting on elements such as providing expectations for their specific program, information on testing and evaluation, and a safe space to ask questions in an unthreatening environment. Mentor responses also highlighted benefits of participation, with regards to encouraging the development of skills in communication, teamwork, and organization. Peer mentorship can also transpire amongst groups of first-year students; the inclusion of upper-year students is not a requirement of a peer mentorship program. In a study by Mattanah et al. (2010) participants in a peer-led support group described reduced feelings of loneliness and a higher level of perceived social support as compared to a control group that did not participate in a peer-led support group but attended an information session describing available campus resources.

In addition to social orientation efforts, many institutions have programs or resources in place to support students academically in their transition to a different type and volume with which they are familiar. Cooper, Ashley, and Brownell (2017) developed the

Summer Bridge program, a two-week pre-university immersive biology program focused on strengthening the understanding of biological concepts that students had previously identified as being challenging. The aptly named program sought to “bridge the transition from high school to college” (p. 1) by not only focusing on teaching biological topics, but also community-building, exploring campus resources, and encouraging the development of effective study strategies. Another example of a bridge program is the Focus on Student Success (FOSS) program at Laredo Community College in Texas, (Gonzalez Quiroz & Garza 2018) which commences two weeks prior to the beginning of the fall semester. It is a workshop-based program, with content decided upon by researchers and recommendations from the literature. “Mini-courses” in English, Math, and History, subjects of large introductory courses, are also taught by faculty members to expose students to the courses, standards, and to the faculty themselves. The program also involved quizzes, assignments, and a final exam that further mimics the university environment for which students are preparing.

A more formal application of the bridge program principles include first-year courses or seminars which, unlike bridge programs, are offered for credit towards graduation. These courses usually possess the same objectives as summer bridge programs; to assist students in adjusting to their new life in higher education in the areas of retention, academic achievement, fostering a relationship with faculty, peers, and the institution, and the development of important university skills (Greenfield, Keup, & Gardner, 2013). In a for-credit university preparatory course presented by Reed, Kennett, Lewis and Lund-Lucas (2011), students were exposed to lectures, several active learning strategies including demonstrations and hands-on activities, and group discussions. While the content was academic in nature, the course also included topics relating to coping, self-directed learning, and critical thinking. The results of data collected from the evaluation of this course suggests that the content of First-Year preparatory courses should “emphasize resourcefulness, self-efficacy, and an understanding that effort is needed to achieve success” (p. 139) as students often begin their post-secondary studies with an unrealistic perception of their own skill level (Gross & Latham, 2011; Lizzio & Wilson, 2004).

Despite the popularity of first-year courses or bridge programs amongst post-secondary institutions, there exists little or consistent favorable evidence to confirm the effectiveness of these programs (Kezar, 2000; Sablan, 2014). For example, a summer bridge program was evaluated in a study by Pascarella and Terenzini (2005), where participants exhibited a statistically significantly higher retention rate and grade point average (GPA) in comparison to a control population. Cabrera Miner, and Milem (2013) and Jones, Gaskell, Prendergast, and Bavage (2017) support this finding with statistically significant results in studies of similar design. However, in another similarly designed study put forth by Kallison and Stader (2012), statistically significant results were not demonstrated, although perceived effectiveness rates remain high, with approximately 80% of participants agreeing the program helped in their development of important university skills. Regardless of chosen method, pre-university preparatory programming effectiveness will vary from institution-to-institution. The context in which the program is offered is important to the evaluation of the meaningfulness of the results. This study will add to the existing literature on this topic in an effort to provide empirical evidence on the effectiveness of pre-university transition programming.

3.2 A brief overview of *Leg UP*

Leg UP: An Introduction to Health Across the Lifespan was an online course intended to give participants a ‘*Leg UP*’ in their first year in the School of Health Studies at the University of Western Ontario (also referred to as “Western” in this article). Offered throughout the summer before starting university, *Leg UP* introduced students to topics they would later encounter in their undergraduate studies while simultaneously reinforcing important university skills in completing the various activities. *Leg UP* was organized into six weeks of content, opening week-by-week until all were open and remained open until the end of September. The topics reflected content presented in the undergraduate program, such as an introduction to health and late adult health. In addition to discipline-specific content, each week had a dedicated university skill with which students would use in completing tasks for that week. These skills were explored further in each week’s University Toolkit. For example, if the Toolkit topic was writing at the university level, students would need to produce a written activity based on the

health-related content of that week. Additionally, students were provided with program-specific resources in the School of Health Studies Dashboard. Table 3 provides an outline of *Leg UP*'s content, Toolkit, and Dashboard topics covered each week.

Table 3 Outline of *Leg UP* weekly content, including University Toolkit and School of Health Science Dashboard Topics

Week no.	Weekly content topic	University toolkit topic	School of health studies dashboard topic
1	An introduction to health	Online communication skills	Understanding a syllabus
2	Childhood and adolescent health	Multiple choice assessments	Managing expectations
3	University student health	Time management	Difference between degree types
4	Adult health and health occupations	Engaging with a professor	Health care career support
5	Late adult health	Writing at the university level	Experiential learning
6	The future of healthcare	Reading scholarly articles	Continuing a healthy transition to Western

3.2.1 *Leg UP* completion and incentives

Leg UP was offered in the summer of 2015, 2016, and 2017 to incoming first-year students. In the first offering of *Leg UP*, there were three activities each week deemed “mandatory” to complete. While there were many more activities than three each week, we deliberately selected three to constitute completing *Leg UP*. These activities were chosen because they best reinforce the university skill within the given topic for that week. If students completed all three mandatory activities for all six weeks, they were awarded with a personalized certificate of completion and their name was entered in a draw to win one of four \$250 gift cards to the campus book store. In the 2016 and 2017 offering, ranked levels of completion were introduced. Instead of three mandatory activities, students could choose to complete one, two, or three marked activities for each week, and in doing so would achieve bronze, silver, or gold badges, respectively. This was an effort to incentivize completion of the course, where students received badges for achieving certain levels of completion. The use of digital badges specifically, otherwise

known as micro-credentialing, can help with engaging learners by allowing them to track their progress and display their achievements (Chou & He, 2017; Hurst, 2015). In 2016, if a student achieved bronze level of completion for all six weeks of *Leg UP*, their name would be entered in a draw to win one of three \$50 gift cards to the campus book store. At silver level, the draw is to win one of three \$100 gift cards to the campus book store, and the gold level draw is to win one of three \$200 gift cards to the campus book store. In the 2017 offering, the monetary incentives were substituted with grade bonus incentives, where if a student completed all bronze level activities for all six weeks of the course, they would be awarded with a 0.5% grade bonus they could apply to their first year Health Science courses. At silver level, the grade bonus was 1.5%, and at gold level the grade bonus was 2.5%. This was part of a larger incentive strategy that involved 5% total bonus grades awarded for participation in transition programming that included attendance at on-site tutorials led by the academic counsellors throughout the year (2%) and completion of a one-on-one session with the academic counsellor during the student's first term (0.5%).

3.2.2 Research objectives

The objectives of this chapter are twofold. First, to evaluate the effectiveness of a pre-university course, *Leg UP*, by comparing the academic achievement and adjustment variables of *Leg UP* participants versus a control group of non-participants. Second, to discuss the results of this comparison in the context of adding to the growing literature on evaluating pre-university preparatory programming.

3.3 Methods

3.3.1 Synopsis

This quasi-experimental, non-equivalent groups study assessed the effect of *Leg UP* participation on achievement in and adjustment to university for first-year students in the School of Health Studies at Western. This study recruited future first-year Health Studies students to participate in an online, pre-university transition course, *Leg UP*, in the summer before starting their undergraduate studies. After progressing through their first year, this same group was recruited to participate in a transition to university

questionnaire to gain quantitative data on adjustment and achievement variables. The control group was created by those who completed the questionnaire but who indicated they did not participate in *Leg UP*. The experimental group consisted of those who participated in *Leg UP* and also completed the transition to university questionnaire. The transition to university questionnaire consists of a validated questionnaire assessing the adjustment to university, as well as self-reported grade data and demographic questions.

3.3.2 Ethics approval and inclusion/exclusion criteria

Before commencing this study, ethics approval (file no. 106519 and 110886, Appendices A, B, and C) was granted from Western University's Non-Medical Research Ethics Board (NMREB). All students who were registered in the School of Health Studies as first-year students at Western in academic years commencing in 2015, 2016, and 2017 were eligible for participation in *Leg UP* and by extension, this study.

3.3.3 Research setting and *Leg UP* participant recruitment

Upon accepting their offer of admission to the School of Health Studies within the Faculty of Health Sciences at the University of Western Ontario, students were invited to participate in *Leg UP* in the summer before starting their undergraduate studies in September. Students were recruited virtually (by email) to participate in the course (Appendix D). *Leg UP* opened within the first week in June of each year it was offered and remained open until the end of September. The *Leg UP* materials were housed on Western's LMS, Sakai. In the invitation to participate in *Leg UP*, students were directed to the LMS to log-in and access the course. For many students, this was the first interaction with the LMS. Students would then progress through *Leg UP* at their own pace throughout the summer and in the first month of classes. During this time, Western also offers a series of transition supports either locally (within the School of Health Studies) or campus-wide. A summary of the transition support programs (excluding *Leg UP*) a student registered in the School of Health Studies would typically encounter in his or her transition is listed in Table 4.

Table 4 A summary of the transition programming offered to students registered in the School of Health Studies

Resource offered	Description	Timing	Location
Summer Academic Orientation (SAO)	Future students have a chance to select, confirm, and/or register for courses, review their timetable with an upper-year student orientation leader or academic counsellor from the faculty, and learn about the various services at Western as well as tour the campus (“Types of SAO - Western University,” 2018).	One day, from June-August	Campus-wide with local sessions
Orientation week (O-week)	A series of events and activities focused on welcoming new students to Western and providing a time and space to meet other first-year students. Upper-year student “Sophs” are the organizers of the event (“Orientation Week - Western University,” 2018).	One week at the beginning of September	Campus-wide with local sessions
On-site monthly tutorials	Tutorials designed by the School of Health Studies Academic Counsellors intended to provide first-year students with timely information relating to processes at Western. For example, a tutorial on how to complete the intent to register was provided during intent to register time.	Throughout the first year (September to April)	Local
One-on-one academic counselling	Mandatory one-on-one session with the School’s academic counsellor to ensure progression and provide support during the transition.	During the first term (September to December)	Local

3.3.4 Outcome measures and survey participant recruitment

After progressing through their first year, students were recruited to participate in a transition to university survey (Appendix E). Timing of survey delivery was intended to grant *Leg UP* and non-*Leg UP* participants an opportunity to experience university before responding to questions on adjustment and achievement. In 2015 and 2016 offerings, participant recruitment for this survey took place in the second term of students’ first years (Winter 2016 and 2017, respectively). In the 2017 offering, participant recruitment for this survey took place in the first term of students’ second year (Fall 2018). The first page of the survey presented participants with the Letter of Information about the study,

with consent indicated by clicking “yes” to the question if they agreed to participate in the study (Appendix F). This survey collected self-reported *Leg UP* participation data, self-reported grades in mandatory first-year courses, and the responses to the Students Adjustment to College Questionnaire (SACQ; Baker & Siryk, 1984). Self-reported *Leg UP* participation data asked students if they participated in *Leg UP*. We asked for students’ self-reported admission averages to evaluate the baseline differences between *Leg UP* participants and non-*Leg UP* participants at enrollment. In 2015 and 2016 offerings, we requested students’ self-reported grades in their first-year, first-term module courses (Biology 1001A/1201A and Health Sciences 1001A). For the 2017 offering, we requested students’ self-reported grades in their first-year, first- and second-term module courses (Biology 1001A/1201A & 1202B/1002B and Health Sciences 1001A & 1002B). In order to combine the two datasets, only the first-term module course grades were used for the subsequent analyses. The 67-item SACQ measures overall adjustment to university (we received permission to change “college” to “university” to avoid confusion at this Canadian institution) in four variables: academic adjustment, personal-emotional adjustment, social adjustment, and attachment (to the institution; Baker & Siryk, 1984). Baker and Siryk (1984) report estimates of internal consistency reliability in the form of ranges of Cronbach’s alpha coefficients: full scale = .92-.95, academic adjustment subscale = .81-.90, social adjustment subscale = .83-.91, personal-emotional adjustment subscale = .77-.86, and attachment subscale = .85-.91.

The survey was distributed online through Western’s online survey provider, Qualtrics. For evaluation of 2015 and 2016 offerings, students were recruited to participate in the survey through their module first-year, second-term course. For evaluation of the 2017 offering, students were recruited to participate in the survey in their module first-term, second-year course. By choosing mandatory module courses, we ensured reaching as many first- and second-year Health Studies students as possible. Students were reminded that participation in the survey would not impact their grade in any way. This link also appeared on the courses’ LMS sites later on for quick access. Students were given a two-week window to complete the survey, after which it closed. In an effort to incentivize survey completion for 2015 and 2016 offerings, survey participants were entered in a random drawing of four \$50 hospitality services gift cards. For the 2017 offering, all

survey participants were emailed a \$5 Starbucks e-gift card in lieu of a random draw. The last question on the survey asked students to provide their email for the random draw or e-gift card, which was unlinked to survey responses.

3.3.5 Control group

The control group was created from those who completed the university transition survey but did not participate in *Leg UP*. A flowchart of the experimental design can be found in Figure 5.

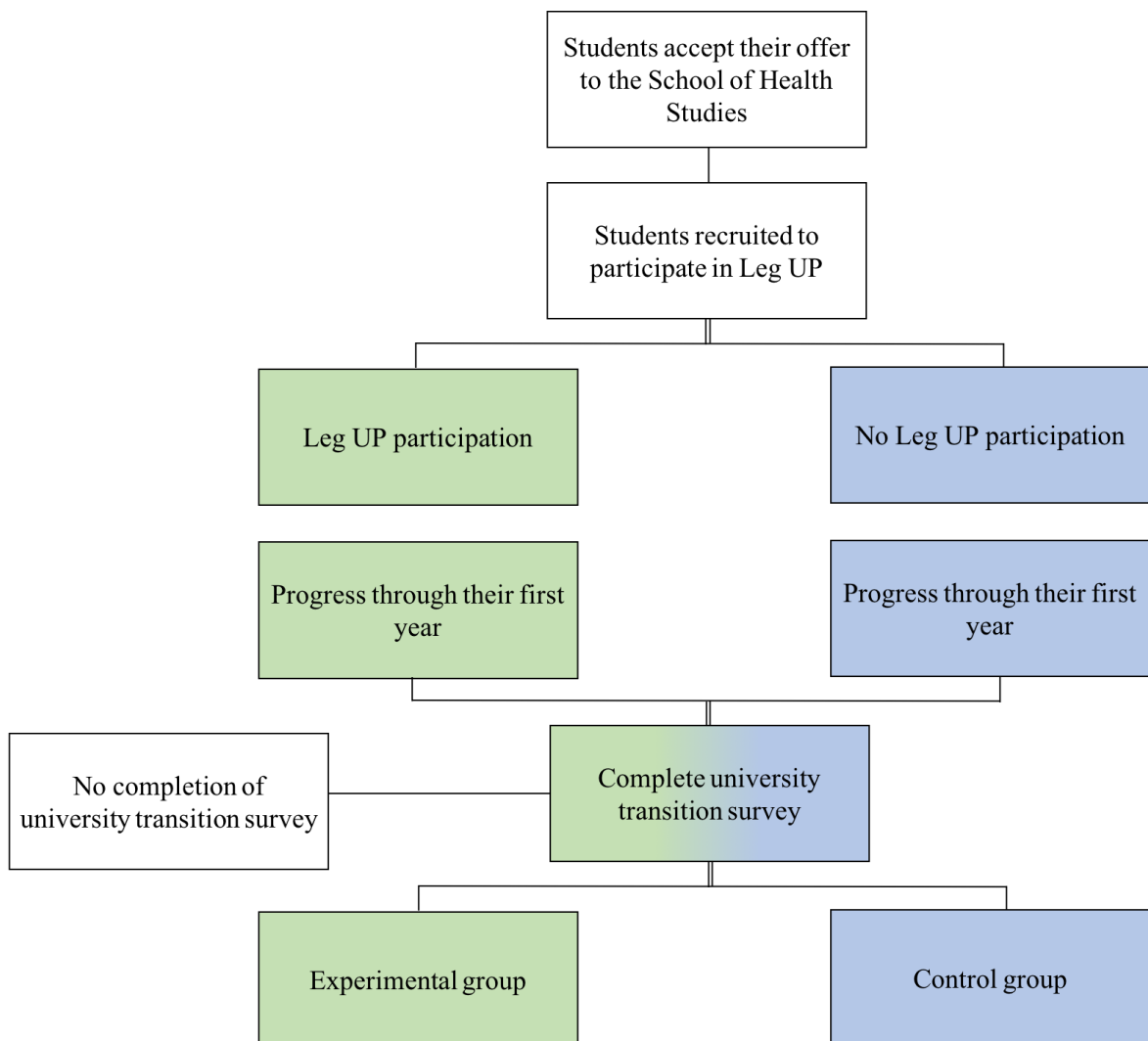


Figure 5 A flowchart of research activities leading to the creation of experimental and control groups.

3.3.6 Data analysis

The central research question asks if there is a difference between individuals who participated in *Leg UP*, as compared to those who did not, in terms of overall university adjustment and academic achievement. This question was addressed through three quantitative analyses: (1) a t-test to predict the full scale T-score of the SACQ based on *Leg UP* participation, (2) a multivariate analysis of variance (MANOVA) to assess the multivariate effect of *Leg UP* participation on academic achievement (consisting of Health Science and Biology grades), and (3) a MANOVA to assess the multivariate effect of *Leg UP* participation on university adjustment variables (consisting of the four subscales of the SACQ). All quantitative analyses were done in the open-source statistical software, R (version 3.5.1 - "Feather Spray, 2018) using the following packages: car (Fox & Weisberg, 2011), mvoutlier (Filzmoser & Gschwandtner, 2018), mvnormtest (Slawomir, 2012), rrcov (Todorov & Filzmoser, 2009), and knitr (Xie, 2018).

3.4 Results

3.4.1 Number of users visiting, participating, and completing *Leg UP*

Each year, the entire incoming first year class was invited to participate in *Leg UP*. In 2015, this number was 346 students, 2016 was 342 students, and 2017 was 388.

Approximately 44% of students visited *Leg UP* during its initial offering and by its final offering in 2017, approximately 77% of invited students visited *Leg UP* (Figure 6).

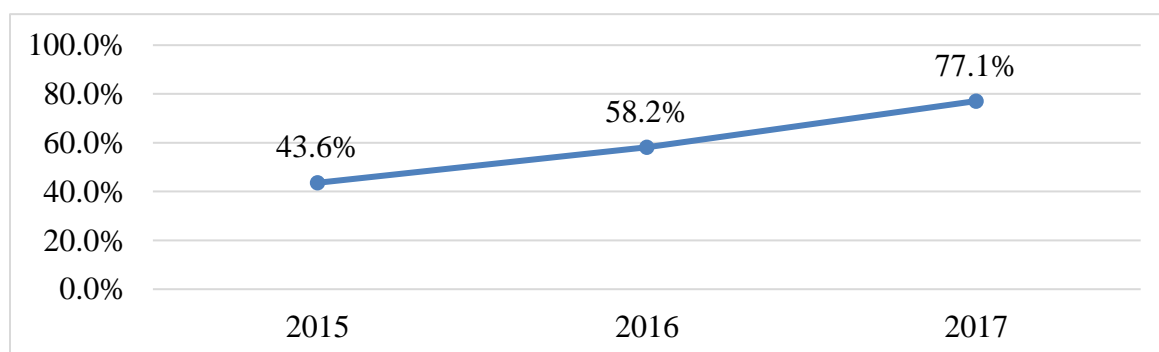


Figure 6 Percentage of invited students who visited *Leg UP* by year

As indicated previously, defining completion of *Leg UP* in 2015 differed from 2016 and 2017 offerings. As such, weekly participation in *Leg UP* is evidenced by completion of the three mandatory activities (Figure 7). In 2016 and 2017, *Leg UP* weekly completion was divided into three ranked categories of completion: bronze, silver, and gold (Figures 8 and 9).

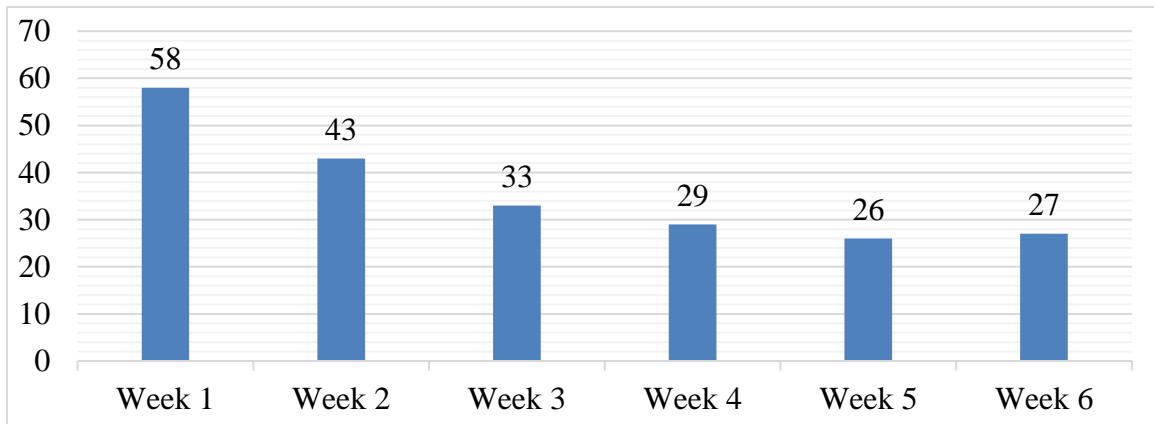


Figure 7 Number of students completing weekly requirements of *Leg UP* over time (2015)

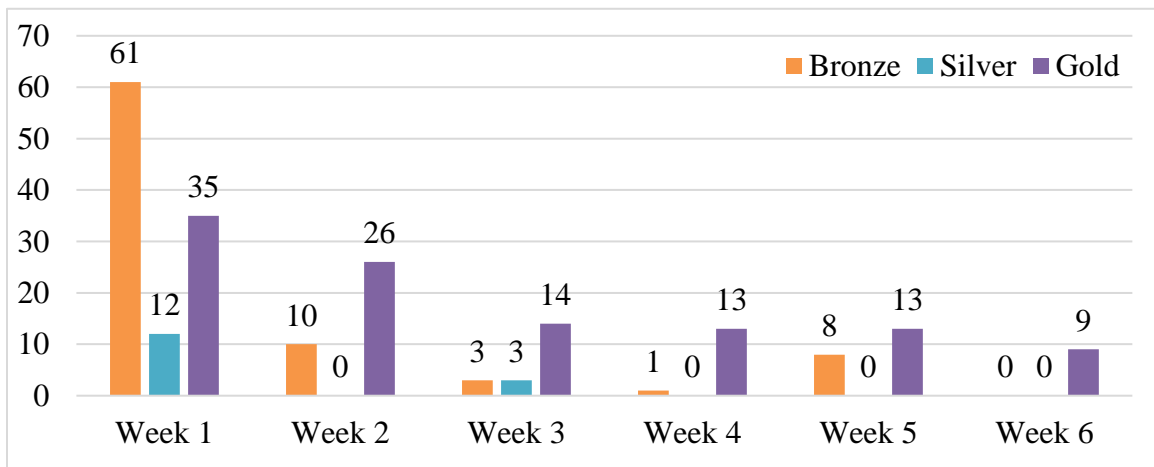


Figure 8 Number of students completing ranked weekly requirements of *Leg UP* over time (2016)

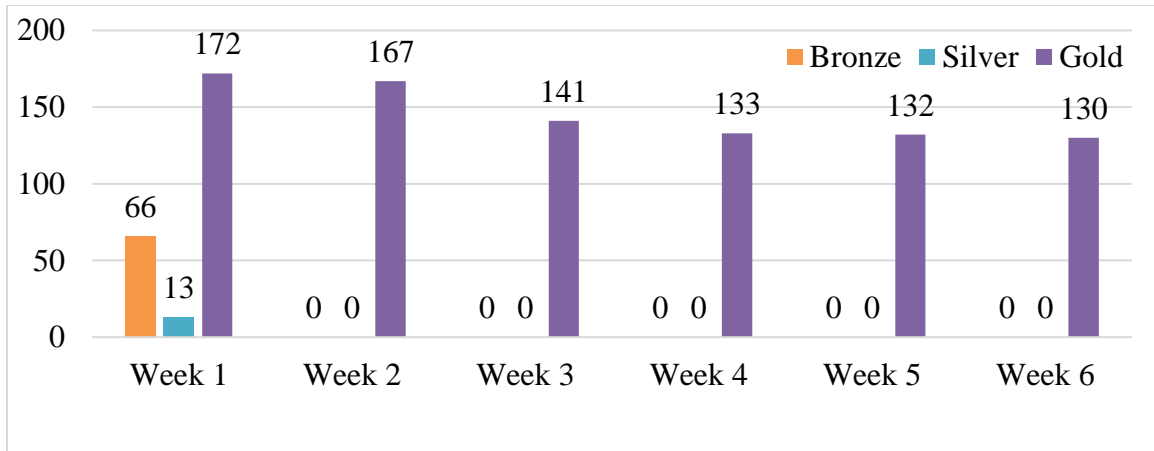


Figure 9 Number of students completing ranked weekly requirements of *Leg UP* over time (2017)

Of the users who visited and interacted with the course, a smaller percentage completed all six weeks of *Leg UP*. In 2015, approximately 17% of visiting users completed *Leg UP* ($n=26$). This represents approximately 8% of the invited population that year. In 2016, approximately 5% of visiting users completed *Leg UP* ($n=9$), representing approximately 3% of the invited population of that year. In 2017, approximately 43% of visiting users completed *Leg UP* ($n=130$), representing approximately 34% of the invited population of that year (Table 5).

Table 5 Summary of *Leg UP* invitees, visitors, and completers by year. Completion numbers are also represented as percentages of (1) the total number of invited users in that year and (2) number of visiting users.

Year	Number of invited participants	Number users visiting Leg UP	Percentage of invited users visiting Leg UP	Number of users completing Leg UP	Percentage of visiting users who completed Leg UP	Percentage of invited users who completed Leg UP
2015	346	151	43.6%	26	17.2%	7.5%
2016	342	199	58.2%	9	4.5%	2.6%
2017	388	299	77.1%	130	43.4%	33.5%

3.4.2 Participant demographics

Over the three years, 226 responses to the transition to university survey were collected. Twenty-seven cases (approximately 12% of the dataset) were listwise deleted, or excluded from the analysis, for missing data, bringing the total number of completed surveys to 199. From the response to the question “Did you participate in *Leg UP*?”, participants were then parsed into *Leg UP* participants and the control group. Of the 199 individuals who completed the survey, approximately 60% ($n=118$) made up the control group, and the remaining approximate 40% ($n=81$) made up the experimental (*Leg UP* participant) group. The majority (approximately 61%) of survey responses stemmed from the 2017 group (Figure 10).

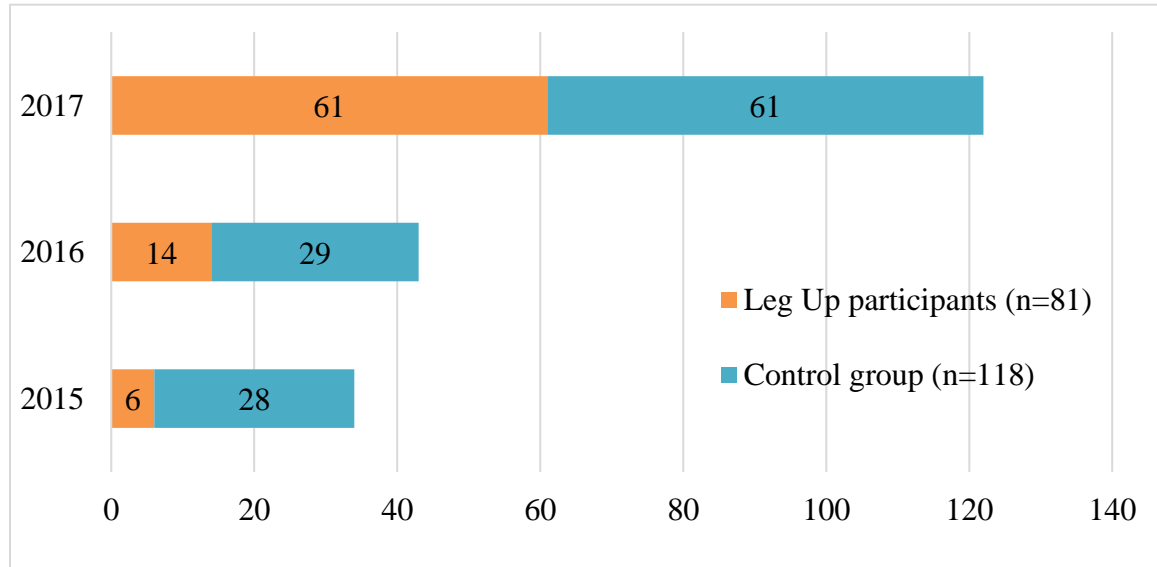


Figure 10 University transition survey completion numbers by year and experimental group ($n=199$).

Of the 199 responses, approximately 85% identified as female ($n=169$), and 15% ($n=30$) identified as male. The majority of survey participants were either 18 years old ($n=92$, 46.2%) or 19 years old ($n=89$, 44.7%). The remaining ages of participants were 20 ($n=9$, 4.5%), 21 ($n=5$, 2.5%), 22 ($n=2$, 1.0%) or unlisted ($n=2$, 1.0%).

3.4.3 Quantitative results

3.4.3.1 Assumption testing for MANOVA

Before performing analyses to establish the effect of *Leg UP* participation on academic achievement and adjustment, three assumptions needed to be tested. The first was missing data. According to the scoring manual of the SACQ, if any raw score was missing in the SACQ, it was prorated in a form of mean substitution based on the subscale it contributes to in addition to the full scale. Approximately 12% of grade data were missing, and those cases of missing data were listwise deleted. No data were missing from the analyzed dataset. The second assumption related to the absence of significant multivariate outliers. An assessment of the ordered squared robust Mahalanobis distances among the participants suggested no significant multivariate outliers were present (Appendix G). The third assumption of a MANOVA required testing for multicollinearity for each set of dependent variables, since there would be a separate model for each university adjustment and achievement variables. None of the Variance Inflation Factors (VIF) for each set of the dependent variables were above the rule-of-thumb value of 2.5, suggesting none of the variables have multicollinearity that would be considered problematic (Allison, 2012).

3.4.3.2 The effect of *Leg UP* on academic achievement

The mean differences between the two groups on incoming average, Biology, and Health Science grades are shown in Figure 11. A t-test was performed to predict entrance averages based on *Leg UP* participation. The difference between *Leg UP* participants and non-participants on their admissions average is statistically significant, $t(188)=2.50$, $p = 0.014$, suggesting groups are unequal at the level of *Leg UP* participation. A MANOVA was performed to demonstrate a significant difference between the two groups on academic achievement. The multivariate effect of *Leg UP* on academic achievement, consisting of Health Science and Biology grades, is statistically significant, $F(2, 196) = 5.0058$, $p = 0.007$ (Appendix H). Multivariate effect size was estimated by calculating 1-Wilk's Lambda, where approximately 4.9% of the variance in academic performance is accounted for by *Leg UP* participation. The univariate effects of *Leg UP* participation on

both Health Science grade ($F(1,197)=9.6584, p = 0.002$) and Biology grade ($F(1,197)=5.0513, p = 0.025$) individually are also statistically significant (Appendix I).

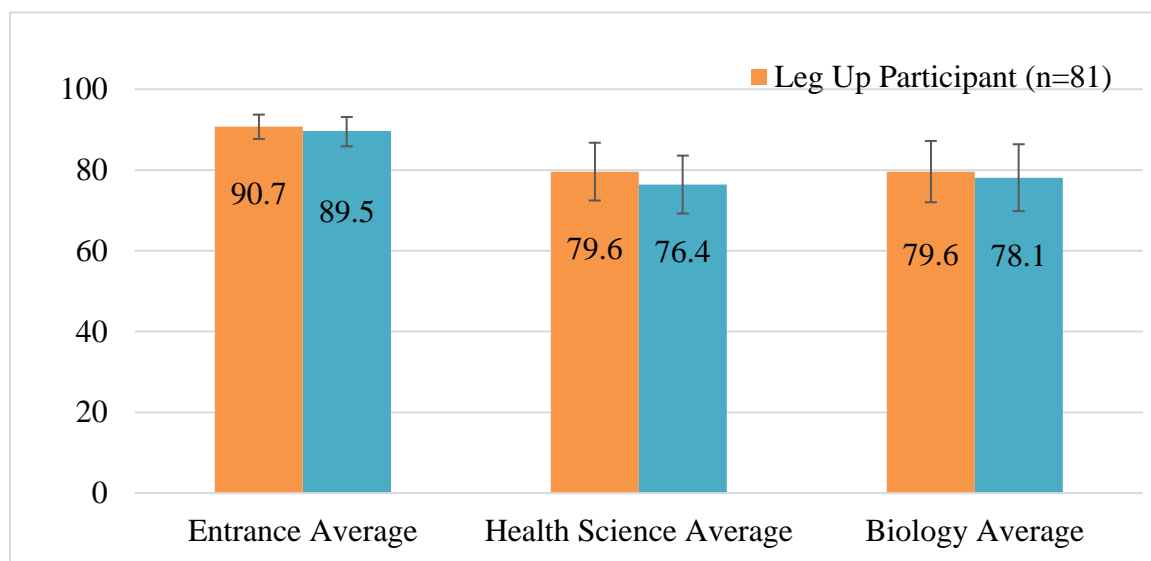


Figure 11 Self-reported Grades by Experimental Group

3.4.3.3 The effect of *Leg UP* on university adjustment

A t-test was performed to predict the SACQ full scale variable T-score based on *Leg UP* participation. The difference between *Leg UP* participants and non-participants on their full-scale variable was not statistically significant, $t(159)=1.89, p = 0.06$. As aforementioned, the SACQ has four subscales: academic adjustment, personal/emotional adjustment, social adjustment, and attachment to the institution. Figure 12 presents averaged T-scores for each subscale and the full scale variables.. A MANOVA was performed to determine whether significant differences existed between the two groups on any of the subscales. The multivariate effect of *Leg UP* on university adjustment, consisting of the four adjustment variables of the SACQ, is statistically significant, $F(4, 197) = 3.0395, p = 0.018$ (Appendix J). Multivariate effect size was estimated by calculating 1-Wilk's Lambda, where approximately 5.9% of the variance in university adjustment variables is accounted for by *Leg UP* participation. The univariate effect of *Leg UP* participation on the university adjustment variable "attachment to the institution" is statistically significant as well, $F(1,197)=8.8827, p = 0.003$. The univariate effects of *Leg UP* participation on the three other subscales; academic adjustment

($F(1,197)=0.3016, p = 0.583$), social adjustment ($F(1,197)=0.0012, p = 0.972$), and personal/emotional adjustment ($F(1,197)=0.0125, p = 0.911$) are not statistically significant (Appendix K).

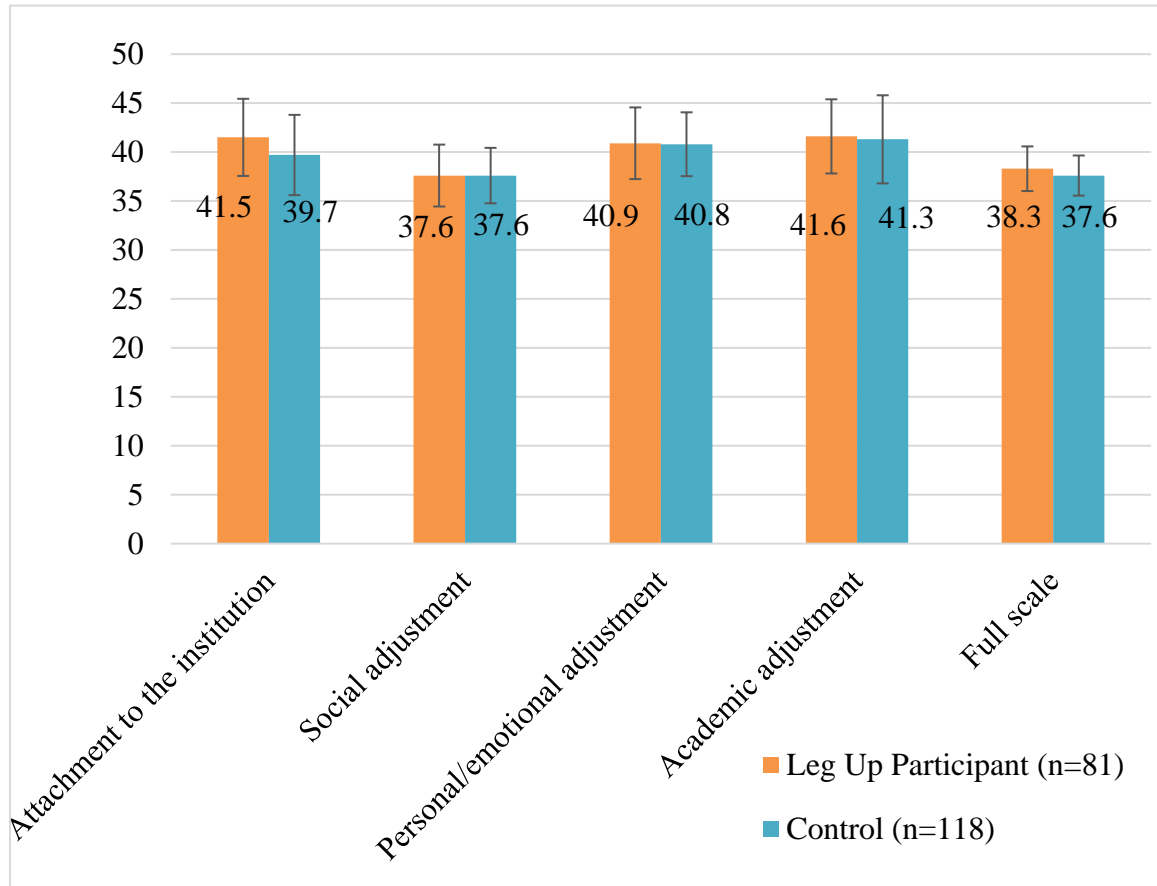


Figure 12 Average T-scores for SACQ (full scale and four subscales) by group

3.5 Discussion

3.5.1 Addressing the research objective

This study's research objective was to evaluate the effectiveness of a pre-university, online course, *Leg UP*, by comparing the academic achievement and adjustment variables of *Leg UP* participants versus a control group of non-*Leg UP* participants. Experimental and control groups were formed at the time of survey completion, with the experimental group reporting *Leg UP* participation while the control group did not. Achievement

variables included Biology and Health Science course grades, and adjustment variables included the four subscales of the SACQ.

Students who participated in *Leg UP* showed a significantly higher achievement in first-year, first-term module courses than their peers who did not participate in *Leg UP*. This was assessed by a MANOVA of the multivariate effect of *Leg UP* participation on achieved Health Science and Biology grades. The univariate effects of *Leg UP* participation on both Health Science and Biology grades separately was also statistically significant. Adjustment to university was also significantly affected by *Leg UP* participation. A MANOVA to assess the multivariate effect of *Leg UP* participation on university adjustment variables (consisting of the four subscales of the SACQ) was statistically significant. Of the four subscales measured by the SACQ, the attachment to the institution variable was the only one with a statistically significant univariate effect. However, *Leg UP* participants did not significantly differ from the participants with no *Leg UP* participation in a t-test predicting the full scale variable T-score of the SACQ.

3.5.2 Interpretation of findings

3.5.2.1 The growing differences in academic achievement

Academic achievement in post-secondary education is unlike what students are accustomed to in high school. There are a number of ways in which university-readiness may be demonstrated, such as through the use of standardized exams (like the American College Test, or ACT) or cut-off entrance averages. Notwithstanding the methods used to qualify an individual as “ready” for university, a startling number of students entering post-secondary are not prepared academically to succeed (Kallison & Stader, 2012). Academic preparedness impacts many facets of university success, including GPA, retention, time-to-degree, and likelihood of graduating (Kodama, Han, Moss, Myers, & Farruggia, 2018). According to the ACT’s report on the Condition of College and Career Readiness for the 2017 ACT-tested graduating class, approximately 82% of graduates aspire to post-secondary education, but only 27% met all four college-readiness benchmarks of Science, Math, Reading, and English (ACT, 2017). The goal of many summer bridge programs is serving as the link between high school and post-secondary,

ensuring all students starting in September arrive with the same baseline of subject content knowledge. The findings from previous studies examining the effectiveness of summer bridge programs suggest an improvement in courses taken later as a student (Wathington et al., 2011). The results from this study concur with previous findings, with *Leg UP* participants performing approximately 3% better in their module courses of Health Science and Biology. In a comprehensive review of summer bridge programs in science, technology, engineering, and mathematics (STEM) disciplines, Ashley, Cooper, Cala, and Brownell (2017), noted that 18 of the 30 programs stated an increase in students' GPA as a result of the program. Of these 18 programs, 15 were suggested to be successful in increasing the GPAs of participating students. However, the authors note the discrepancy between programs in measuring GPA gains. For example, the MemphiSTEP bridge project at the University of Memphis, geared towards increasing student retention through academic preparedness, networking, and research programming, use propensity score matching to estimate the effect of the program on GPA. After accounting for covariates (such as sex, race/ethnicity, and prior performance measures) that could otherwise predict participation in the program, the MemphiSTEP project is suggested to have been responsible for a 0.21 increase in GPA (Ashley et al., 2017; Windsor et al., 2015). Other included studies, such as the evaluation of an engineering summer bridge program by Doerr, Ärlebäck, and Costello Staniec (2014) did not use matched pairs, but controlled for prior performance measures in establishing a statistically significant effect of the program on GPA (Ashley et al., 2017). There are, however, concerns with the studies evaluating summer bridge programs; largely due to the lack of empirical research (McGlynn, 2012). Many studies rely on satisfaction surveys in which students describe how they felt the program impacted their transition to post-secondary soon after the program ends or after a single term (Cabrera et al., 2013). The results from these methods, while not empirical by traditional standards, can indirectly positively affect academic achievement. For example, Strayhorn (2011) found an increase in perceived academic self-efficacy as a result of participating in a summer bridge program. Perceived academic self-efficacy was also found to be a statistically significant predictor of academic achievement, accounting for approximately 30% of the variance in first-semester GPA in participants. Furthermore, many students who

participate in summer bridge programs may perceive themselves as “university material” because of their early exposure to university life (Kallison & Stader, 2012). While results from studies evaluating the effectiveness of these programs are generally favourable, what remains is how to encourage students of all skill levels to participate in transition programming.

3.5.2.2 Extrinsic motivators for *Leg UP* completion

In the two years *Leg UP* completion was further categorized into ranked levels of completion (bronze, silver, and gold), it is noteworthy that those who finished *Leg UP* did so at the gold level of completion. There were no students who finished *Leg UP* at the bronze or silver level. Much like the real-world example of badge collection evidenced by Boy Scouts or Girl Guides, where unique badges are achieved for completing a recognition-worthy activity and later displayed on a sash (Goodyear & Nathan-Roberts, 2017; Hurst, 2015), students in *Leg UP* accumulated badges for completion of activities deemed important for their transition to university life. While the use of digital badges is not mainstream in traditional higher-education classrooms, they are used frequently in e-learning websites such as Khan Academy (khanacademy.com) and in online classes (Goodyear & Nathan-Roberts, 2017). There is currently no uniform standards for badge programming, which calls into question the credibility of the badge outside of the issuing institution (Carey & Stefaniak, 2018). Opponents to the use of digital badging in education argue broadly against the use of external motivators, such as “gold stars, best-student awards, honor roles, pizzas for reading” as they have the potential to undermine intrinsic motivation to learn (Deci, Koestner, Ryan, & Cameron, 2001, p. 1). However, when implemented appropriately, achieving badges can increase motivation in learners by enabling learners to visualize their progress towards a goal (Deci et al., 2001; Dichev, Dicheva, & Irwin, 2018). For example, the use of digital badges also offers promising effects on student retention. If an institution offers a first-year program or course with digital badges, which are recognized and verified within that institution, students may feel their learning path and progress is validated, which can help in their transition to university. This is based on the perspective offered by Mah (2016), suggesting that digital badges can signal the acquisition of both subject-specific and

generic skills. When the development of these skills is supported by the university, this can encourage students in developing the competencies needed for post-secondary education. As a result, early interventions encouraging subject-specific and generic skill development can enhance students' first year experience and aid in retention. In the case of *Leg UP*, achievement in the course as evidenced by the collection of digital badges, was transferable to Western's Co-Curricular record. The Co-Curricular record is an official recognition from Western that allows students to track and receive validation for participation in activities that complement their learning. Other activities verified on the Co-Curricular record include workshops, professional development, and volunteering ("Co-Curricular Record - Western University," 2018). Glover and Latif (2013) concur with the impact on student retention, arguing badges have the capacity to materialize the "less-obvious learning that is often hidden due to the focus on grades and transcripts" (p. 1398).

Collecting digital badges to be verified by Western's co-curricular record was one of the extrinsic incentives used to encourage participation in *Leg UP*. Other external incentives for *Leg UP* participation were offered as discussed in the introduction, including a gift card draw in 2015 and 2016 and the 'bonus grades' award in 2017. Based on participation and completion numbers through the three offerings of *Leg UP*, it appears the introduction of the bonus grade incentive was most enticing to students. Awarding 'bonus marks' for in-class work can be an effective motivator for students. In the case of an interactive online activity evaluated by Snider and Balakrishnan (2013), students who started the activity earlier scored higher overall and achieved more bonus marks in their subsequent assessment than those who started the assessment later. Seventy-six percent of students also agreed that the bonus mark scheme encouraged them to apply more effort in the exercise. Grade inflation resulting from bonus mark allotment was a concern for Snider and Balakrishnan (2013), who indicated they adjusted other course components, such as exams and assignments, to be more difficult. The use of grade incentives for extracurriculars, however, is the subject to much debate (Abu-Zaid et al., 2017). For transition programming specifically, the first-year seminar offered by many institutions is credit-bearing (Hatch & Bohlig, 2016). Credit-bearing transition programming may impact student persistence, as evidence by Swanson, Vaughan, and Wilkinson (2017).

They suggest the cohort who participated in the first-year seminar that was extended from being two-credits to three-credits demonstrated a higher first-year persistence rate, although they recommend further exploration into this topic.

3.5.2.3 Enhancing student retention with preparatory programming

There are a number of potential psychosocial benefits to participating in transition programming. In their review of STEM summer bridge programs, Ashley et al. (2017) noted several positive psychosocial effects identified in the studies reviewed. The effects included, but were not limited to, growing interest in the major, improving the student's sense of belonging, and increasing the student's sense of preparedness for the program. The results of this study suggest that *Leg UP* participants scored statistically significantly higher on the Attachment to the Institution variable of the SACQ than non-participants. Research on student retention, once focused on admission criteria as a chief reason for non-completion, now points to the attachment to the institution felt by the student (Ulriksen, Holmegaard, & Madsen, 2017). Per the SACQ manual, the Attachment subscale measures "a student's degree of commitment to educational-institutional goals and degree of attachment to the particular institution the student is attending, especially the quality of the relationship or bond that is established between the student and the institution" (Baker & Siryk, 1999, p. 15). Baker and Siryk (1999) also suggest that higher scores on this subscale are associated with a greater likelihood of continuing enrollment and higher overall satisfaction with the university experience. The relationship between student retention and psychosocial factors remains complex and varied within the literature. Results from a study put forth by Han, Farruggia, and Moss (2017) suggest student retention is strongly associated with the feeling of belonging to the institution. Conversely, in regression analyses by Kodama et al. (2018), participation in their summer bridge program was not a significant predictor of retention. The authors recognize this finding is contrary to their expectations based on the literature: "interestingly, however, a series of regression analyses did not show any association between program participation and first- to second-year retention, which we would expect given the positive association with related outcomes such as earned credits, first-year GPA, and graduation" (p. 363). While the evaluation of *Leg UP* contributes to the literature on this subject, mixed

findings on the effect of summer bridge programs on student retention warrants further empirical research. What is clear is that students will remain at an institution if they are “integrated into the fabric of the institution” (Rogerson & Poock, 2013, p. 167). An institution that values and invests in the integration, involvement, and success of its students will yield students that, in turn, value the institution. As a result, students who are involved and engaged in institutional activities (such as *Leg UP*) are more likely to demonstrate academic success (Altschwager, Dolan, & Conduit, 2018; Tinto, 1993; Yorke, 2004).

3.5.3 Study limitations and future directions

This study, from *Leg UP* participation to the completion of the transition to university survey, is subject to volunteer bias. This bias is problematic when volunteers differ from the general population. An attempt at reducing this potential bias involves increasing the potential for volunteers. Boughner (2010) describes research strategies that can be employed by researchers to reduce this potential bias. For example, subjects are more likely to volunteer if they feel their responses are anonymous and confidential. They are also more likely to volunteer if they are inherently interested in the topic, if the incentive to participate is meaningful, and if their involvement is as short and simple as possible. In recruiting students to participate in *Leg UP*, efforts were made to capture the interest of the research population. This included proposing the *Leg UP* program as giving them an exclusive glimpse into their degree path of choice. Significant efforts were made at ensuring that communication to students was clear and informative and aesthetics and organization of the course easy to navigate. There were also incentives for completing *Leg UP*, as addressed earlier.

Volunteer bias can be problematic in the evaluation of educational initiatives, since “students most likely to benefit are least likely to participate” (Kodama et al., 2018, p. 364). To combat this widely-held belief, many summer bridge programs target at-risk populations. Such programs include the MemphiSTEP project where Windsor et al. (2015) found the programming to be most effective for those in the at-risk population, reporting a 0.28 increase in GPA from a projected 2.54, and an increased retention from a historical value of 54% to 79%. Other transition programs targeting at-risk populations

and resulting in better outcomes for participants include the CHEER summer bridge program (Bir & Myrick, 2015); the two-week biology summer bridge program assessed by Cooper et al. (2017); and Project LeeWay, the six-week summer bridge program at Lee College (Hoops & Kutrybala, 2015). The students who took time out of their summer to complete *Leg UP*, an optional, online, six-week pre-university course, are arguably high achieving students. This study was a quasi-experimental, non-equivalent groups design. Our experimental and control groups were statistically significantly different, as admission average was a predictor of *Leg UP* participation. A true experimental research design, in which participants of the control and experimental groups are randomly assigned and there exists no significant differences between the two groups is ideal but was not realistic in this scenario. A true randomized experiment would be valuable in reinforcing the significant effects achieved in this study.

As for the transition to university survey, efforts at reducing volunteer bias were also made during participant recruitment. This included the communication of the short time commitment to finish the anonymous survey (approximately 30 minutes). Completion of the survey was promoted as a way for experienced students to provide their ‘transition to university experience’ to inform the transition programming planning of the School of Health Studies. This helped in creating an inherent interest in the research topic. There were also incentives provided for those volunteering to participate in the survey. While multiple measures were in place to reduce the effect of volunteer bias, in a study of this design this bias is inevitable.

The design of the study essentially captured data at one point in time. Ideally, it would be valuable to track *Leg UP* participation and link to survey responses, instead of relying on a “yes” or “no” response to participation. This would allow a more detailed analysis of amount (i.e. is there a significant effect of prolonged participation?) or timing (i.e. at what point in time were better adjusted/achieving students participating?) of *Leg UP* participation. The one point in time capture of data in the form of the survey may also present issues relating to the self-report of grade data. Students may not remember their entrance average or achieved grades in first year courses. Memory of these grades may be less available to the group surveyed in their second year of studies. Accuracy in grade

recall would, in theory, be present in both experimental and control groups equally. Retrieving grade data from the university Registrar's office would help in mitigating this potential area of concern. This would involve collecting identifying information for the purpose of data retrieval, whereas in this study survey responses remained anonymous and no personal identifiers were collected.

3.6 Conclusion

Summer bridge programs offer a cost-effective, high-impact transition strategy designed to assist students in the development of academic and university-readiness skills in preparation for the shift from high school to post-secondary education (Greenfield et al., 2013). The *Leg UP* project explored in this chapter adds to the growing literature on the evaluation of university transition programming specifically designed within the student's discipline of choice. While many institutions presenting research on the effectiveness of post-secondary preparedness programs are located in the United States, this article offers the results of a pre-university, online course offered at large, Canadian higher-education institution. Additionally, many preparatory programs focus on students' acquisition of university skills broadly, but fewer situated the development of these skills through application within interactive content from the students' chosen field. It is important to continue investigating what resources or programs may assist students in their transition to post-secondary education. Success of transition programming is context-dependent. The needs of students will vary between institutions and between incoming classes. The ever-changing landscape of higher education is reflected in the sensitivity, awareness, and adaptability of orientation practices.

3.7 References

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Chapter 4

4 The lived experience of first- and second-year Health Science students' transition to university: A phenomenological study

With the transition to university comes changes to students' existing socio-cultural and academic environments (Morosanu, Handley, & O'Donovan, 2010). These changes can include moving away from the familiarity of home to a new setting where they expect to adapt to a new lifestyle, while naturally making new friends and continuing to succeed academically. Resources aimed at facilitating a successful transition to post-secondary education generally strive to improve retention, often discussing the use of the transition resource as a predictor of progression in the student's program (Greenfield, Keup, & Gardner, 2013). However, the needs of incoming first year students are assumed based on limited knowledge of group demographics, while personal nuances of identity development are not given consideration (Kranzow & Foote, 2018). The experience of the transition to post-secondary should not merely be viewed as a means to an end, rather the beginning of a transformational period of self-discovery (Porteous & Machin, 2018; Tinto, 1993).

4.1 Potential concerns affecting the transition to university and the first-year experience

4.1.1 Belonging

The literature suggests that participation in activities within and outside of the classroom can enhance the student experience (Matthews, Andrews, & Adams, 2011). This aids in development of attachment to the institution, where students who feel like they belong to the institution are more likely to succeed (Samura, 2016). "Belonging" is a phenomenon that has been well-documented in the literature (Carruthers Thomas, 2019). Yet, how students experience the phenomenon of belonging is less understood. While there are several similar definitions of belonging within the context of university students, Tinto's (1993) Model of Integration remains one of the most widely cited frameworks; wherein students who are well-integrated in their respective institutions' social and academic

structures are more likely to thrive and progress through their program to graduation. While many use Tinto's work to describe retention, critics affirm this theory places too much emphasis on the responsibility of the student to integrate themselves, and does not address the responsibilities of the institution (Samura, 2016). As a result, the conceptualization of belonging was broadened by Hurtado and Carter (1997) who suggested measures of belonging should "capture the individual's view of whether he or she feels included in the college community" (p. 327). In a collection of written narratives about the transition experience of non-returning students, Martin (2017) reports less than 10% of stories written by these students describe an event in which they had positive experience engaging in school-related events; suggesting this cohort had little attachment to the university. Institutions have made significant efforts at improving the extracurricular engagement of its students. For example, work integrated learning through co-ops, internships, or placements, provide the opportunity for students to apply their knowledge and skills while gaining valuable work experience (Council of Ontario Universities, 2014). Fostering a sense of belonging can also take the form of social engagement. Other socially-led co-curricular activities in which student involvement can be promoted include participation in clubs and volunteering (Slaten, Elison, Lee, Yough, & Scalise, 2016; Hustinx, Vanhove, Declercq, Hermans, & Lammertyn, 2005). There are many ways incoming students can develop new friendships. Living on campus in residence can assist in providing a community to which the student feels they belong. Forming new friendships in the new higher education setting can provide a sense of belonging or relatedness, in addition to a source of emotional support or de-stressor by offering advice, or fun and enjoyment (Noyens, Donche, Coertjens, van Daal, & Van Petegem, 2018). Historically, students living in residence report higher levels of social integration than their peers who do not live in residence; namely in the forms of peer support, sense of community, and sense of belonging (Johnson et al., 2007; Pascarella & Terenzini, 2005). Building peer relationships, especially in the first few weeks of first semester, can help contribute to a positive academic adjustment (Wilson et al., 2016).

4.1.2 Adjusting to academic demands

Adjusting to the academic demands of post-secondary education is a commonly-cited issue reported by students in their transition to university (Nakkula & Foster, 2007; Rosenbaum & Becker, 2011). Academic demands can include increased workloads, ability and perceived ability, and important university skills, such as study and time management skills (Barker, Howard, Villemare-Krajden, & Galambos, 2018). Many transition programs address potential academic stressors by providing students with a realistic glimpse into the workload at the post-secondary level. In other words, by increasing the students' academic preparedness (Atherton, 2014). In the United States, it is estimated that approximately one-third of high school graduates are adequately prepared for post-secondary level work (Bettinger, Boatman, & Long, 2013). By participating in transition programming, students may develop the skills necessary to succeed academically in their first year. However, the effects of transition programming, such as in the form of summer bridge programs, learning communities, or remedial courses, remains subject to debate. The findings from studies evaluating transition programming are often nuanced and context-dependent (Bettinger et al., 2013). Despite efforts made by institutions to improve the academic preparedness of their incoming students, the issue of academic adjustment persists and remains a stressor of many post-secondary students. In a recent National College Health Assessment put forth by the American College Health Association (2016), the health indicators of a reference group of Canadian post-secondary students were examined. Overall, 46.2% of students reported experiencing more than average stress levels, even more (approximately 58.1%) reporting academics being traumatic or very difficult to handle (American College Health Association, 2016). In a study examining the effects of academic experiences on depressive symptoms, Newcomb-Anjo, Villemare-Krajden, Takefman, and Barker (2017) found in a sample of 903 Canadian university students that perceived academic stress was a significant predictor of depressive symptoms. This effect was established after controlling for previously identified contextual risk factors for depression. The adverse impact of increased academic stressors can be mitigated if the student perceives he or she is able to cope and if his or her environment provides sufficient resources, such as social support (Barker et al., 2018).

4.1.3 Support in the transition to university

Support during the transition to university can take on many forms, generally falling into either formal or informal support. While the former can include institution-led initiatives, such as academic counselling or transition programming, the latter can consist of a student's friend network or family. There is a wealth of literature concerning the evaluation of the effectiveness of formal supports, including institution-led transition programming or peer mentorship programs (e.g., Collings, Swanson, & Watkins, 2016; Richardson & Tate, 2013; Risquez & Sanchez-Garcia, 2012; Harley, Winn, Pemberton, & Wilcox, 2007). The informal supports offered to students during their transition to university, however, is a less frequently described relevant facet of the transition to university that is highlighted in this research. While students may live away from home, their parents continue to provide support during the transition (Friedlander, Reid, Shupak, & Cribbie, 2007; Mounts, Valentiner, Anderson, & Boswell, 2006). The preservation of the connection with parents helps to provide students with identity stability during this period of transition (Azmitia, Syed, & Radmacher, 2013). In particular, positive parental support in the form of granting autonomy, communication, and warmth can assist in the development of positive outcomes (such as self-worth and identity development) and reduce negative outcomes (such as risky health behaviours, depression, and anxiety) of their early adult children (Padilla-Walker, Nelson, Fu, & Barry, 2018). While interaction with parents is often reported as a significant support to the transition to university, it is the perceived satisfaction with the interaction by the student that has a positive effect (Rogers et al., 2018). In other words, the amount of contact with parents is not as impactful as a form of support as the perceived satisfaction with the parent interaction felt by the student. "Better" interaction with parents is not necessarily indicated by "more" interaction with parents. Conversely, in this same study by Rogers et al. (2018), they found that when students reported spending more, satisfying time with their friends, they reported a greater positive affect. In the literature exploring the relationship between the interaction with friends and the transition to post-secondary, friends can help provide the support network needed when negotiating changes and development of self-identity (Azmitia et al., 2013). The creation of new friendships in post-secondary can be supported by social media use, in particular Facebook, however these connections are

seen as “weak ties” due to the superficial nature of the relationships formed (Ellison, Steinfield, & Lampe, n.d.; Manago, Taylor, & Greenfield, 2012). This may lead some to not engage in social media use, however Page, Wisniewski, Knijnenburg, and Namara (2018) argue that not using social media can perpetuate the feeling of loneliness by further isolating the individual from their social environment. Throughout the quest of establishing meaningful connections, students can rely on deep connections previously formed. Technological advances in communication, for example video calling, can help first-year students communicate with close friends who live in a different city (Ranney & Troop-Gordon, 2012). The development of close, intimate friendships in university remains complex. Students’ “romanticized expectations of how wonderful university life will be” (Buote et al., 2007, p. 686) includes the narrative that they will meet everlasting friends in the beginning of their first year. For many, the expectation of meeting lifelong friends early on was adopted from ‘what other people said’ and using these prior conceptions of university social life as a benchmark from which they compare their experience (Maunder, Cunliffe, Galvin, Mjali, & Rogers, 2013).

4.1.4 Study purpose and research questions

The purpose of this study was to describe the lived experience of first- and second-year Health Science students’ transition to the University of Western Ontario. By gaining a deeper understanding of students’ transition, institutions can appreciate the diverse, complex factors at play to better suit the needs of students in designing transition programming. The phenomenon of transitioning to university was conceptualized by addressing the main research question: “What was it like for these students to transition to university?”

4.2 Methodology

This research was qualitative in nature. While the quantification of educational events is widely practiced in the higher education literature, qualitative methods offer to alleviate the limitations of quantitative research in describing educational activities (Freebody, 2003). The interpretivist/constructivist paradigm provided the inquiry framework of this work. A paradigm is a “set of basic beliefs (or metaphysics) that deals with ultimates or

first principles. It represents a worldview that defines, for its holder, the nature of the “world,” an individual’s place in it, and the range of possible relationships to that world and its parts” (Guba & Lincoln, 1994, p. 107). Paradigms capture the researcher’s personal view of reality, which can affect the way information is interpreted by providing the “intent, motivation, and expectations” of the research (Mackenzie & Knipe, 2006, p. 194). There are numerous inquiry paradigms that seek to contextualize the research, often overlapping in their classification. Guba and Lincoln (1994) present four inquiry paradigms: positivism, postpositivism, critical/ideological theory, and constructivism/interpretive. Positivism is hallmarked by the “distrust of abstraction, a preference for observation unencumbered by too much theory, a commitment to the idea of a social science that is not vastly different from natural science, and a profound respect for quantification” (Paley, 2008, p. 647). In a rejection of empiricism held by positivists, postpositivist inquiries believe human experiences are of scientific inquiry. Despite the differences between positivism and postpositivism, postpositivists agree there may be a “true” reality, however decisions about phenomena are made based on probability as opposed to certainty. They also agree the research should remain as objective as possible; where in the strict case of positivists, the researcher is considered a separate, independent entity from the participants. The critical/ideological theory’s chief defining feature is the researcher’s values being central to the study. In working with oppressed groups, the interaction between the researcher and the participant can empower the otherwise marginalized participants to advocate for democratic change (Brydon-Miller & Tolman, 1997; Ponterotto, 2005). The constructivist/interpretivist paradigm (referred to solely as interpretivist henceforth) was adopted for this research as the major discerning factor between positive and postpositive paradigms. Within interpretive paradigms lies the conception of reality. Interpretivists believe multiple realities exist, though many share experiences, there is no single reality (Guba & Lincoln, 1994; Ponterotto, 2005). Interpretivism also supports a hermeneutical approach, in which the researcher “participates” in the dialogue by reflecting and ascribing meaning to the participants’ actions (Schwandt, 2000). The critical/ideological theory does not apply in this scenario where the goal of the research is to describe the lived experience of first- and second-year Health Science students’ transition to the University of Western Ontario. The objective is

not to be critical or apply outside knowledge to the data collected, rather an exploration of individualized experience of the phenomenon of transition to university.

The methodology chosen for this study is phenomenology. There are three commonly employed methodologies of qualitative research: grounded theory, ethnography, and phenomenology (Holloway & Todres, 2003). While the three exhibit considerable overlap, they are unique in their aims and theoretical underpinning. Phenomenology in itself is not a research method, rather a philosophy or way of inquiry (Seidman, 2013). As an adopted methodological approach, phenomenology seeks to “understand the reality of the individual’s experience as they engage with the phenomenon rather than the more objective reality of the nature of the phenomenon itself” (Dowling, 2007, p. 137). Alternatively, the goal of grounded theory is to explain an aspect of a social world in an effort to create a theory from the data collected (Charmaz, 2014). This study did not seek to explain the transition, rather the study’s aim was to describe and interpret the individual’s experience of the phenomenon. Ethnography, while similar in aim to phenomenology, is applied to how people interact with their social context. Ethnography generally involves observation of the participant in their environment, usually through fieldwork, and therefore not deemed a suitable methodology for this study (Holloway & Todres, 2003; Teherani, Martimianakis, Stenfors-Hayes, Wadhwa, & Varpio, 2015). This research aimed to collect an in-depth perspective of students’ transition to university (an already lived-through experience) through the use of interviews and focus groups.

Within each methodology also exists variations in style. This can include areas such as goals, data gathering approaches, and analysis approaches. This study applied the interpretive form (also referred to as hermeneutic form) of phenomenology, a natural choice, considering the interpretive paradigm chosen for this research. Seeking to derive the ‘essence’ of students’ transition experience to university can be accomplished by asking ‘what is it like to have this experience?’, which is an inherently phenomenological question (Kivunja & Kuyini, 2017). According to Martin Heidegger, a pioneer of interpretivist phenomenology, a phenomenon is something that is looked over; “it may appear to show itself, hinting at what the phenomenon is, but what it ‘is’ remains hidden” (Wright-St.Claire, 2014, p. 55). The phenomenon of the transition to university, while

well-researched within the context of evaluated supports, is often overlooked when studying what, exactly, the transition means for students going through it. Additionally, interpretive phenomenology allows the researcher to add his or her own interpretations to the interpretations of the participants – explaining further what participants may have had difficulty in expressing (Porteous & Machin, 2018).

4.3 Methods

4.3.1 Synopsis

This qualitative study presents an interpretative phenomenological analysis of focus group and interview data. The phenomenon of interest is the transition to university, namely, what was it like for first- and second-year students enrolled in the School of Health Studies to transition to the University of Western Ontario. This study recruited first- and second-year students enrolled in the School of Health Studies to gain an in-depth understanding of their transition to university.

Thirteen participants' interview or focus group contributions were thematically analyzed following Smith, Jarman, and Osborn's (1999) strategy for interpretive phenomenological analysis.

4.3.2 Ethics approval and inclusion/exclusion criteria

This study was approved by the University of Western Ontario's Non-Medical Research Ethics Board (File no. 106519 and 110886 Appendices A, B, and C). Eligibility to participate in the study required registration in the Bachelor of Health Sciences program in the School of Health Studies in either their first or second year of study.

4.3.3 Participant recruitment and sampling

Recruitment for this study was purposive; given the specific objective and desire for information-rich participants, it was imperative to select individuals who had experienced the phenomenon of interest (transitioned to university) within the specified context (School of Health Studies at the University of Western Ontario). Additional features of

purposive sampling, such as availability and willingness to participate, were also considered when deriving the sampling strategy (Palinkas et al., 2015).

In the first instance of data collection for this study, first-year students in their second term of studies were recruited to participate. In the second year of data collection for this study, second-year students in their first term of studies were recruited to participate. Recruitment to participate in this study in both instances took place within a transition to university survey collected for a previous study (see Chapter 3). The survey was distributed online through Western's online survey provider, Qualtrics. For the first year of data collected for this study, students were recruited to participate in the survey in their module second-term, first-year course. For the second year of data collected for this study, students were recruited to participate in the survey in their module first-term, second-year course. By choosing mandatory module courses, we ensured reaching as many first- and second-year Health Studies students as possible. Students were reminded that participation in the survey would not impact their grade in any way. This link also appeared on the courses' Sakai sites following the in-class recruitment for quick access. Students were given a two-week window to complete the survey, after which it closed. Students were incentivized with gift cards for completion of the survey. At the end of this survey in the first year of data collection, participants were asked if they would be willing to participate in a focus group. For the second year of data collection, participants were asked if they would like to participate in either a focus group or individual interview. Those interested in participating provided their institutional email addresses in a question that was unlinked to their previous survey responses (maintaining the anonymity of previous survey responses). The researcher consulted this list and emailed out invitations to participate in either a focus group or interview, depending on what the participant indicated. Participants were instructed to fill out an anonymous online Doodle poll with their availability. Dates were selected and participants were emailed to secure their date, time, and location. Upon arrival to the focus group or interview, participants were given a letter of information and associated consent form to review and sign (Appendix L). They were provided an opportunity to ask clarification questions.

4.3.4 Data collection

Data were collected via focus groups and individual interviews. Capturing student experience through surveys as a means of adapting existing courses, assessment, and pedagogy is not ideal, at least not on their own. Shah, Nair and Richardson (2016) argue for the use of interviewing for this type of research, as student feedback or “happiness indicators” do not predict the success of the student. For the focus groups, the intention was to have at least four individuals per group, consistent with the guidelines put forth by Kreuger (2014). In all instances of focus group data collected, the projected minimum of four people was not met. Participants were scheduled for focus groups containing at least four people, but extenuating circumstances of potential participants led them to abstain from participation. There were four focus groups, one containing three people and the remaining three contained two people. Focus groups were used in this study to gather a variety of perceptions emerging from a group setting regarding the transition to university (Krueger, 2014). Emphasizing interaction, focus groups have the potential to gather rich, experiential data (Webb & Kevern, 2001). There were an additional four individual interviews conducted. Individual interviews, commonly employed in interpretive phenomenological studies, were conducted to deeply explore the phenomenon of the transition to university through participants’ stories (Mann, 2016; Wright-St.Claire, 2014). The total sample size for this study, combining focus group and individual interview efforts, was 13 participants. The variety of methods employed was intentional to triangulate data collection efforts. Triangulation assists in the validity of the study by seeking convergence between different data sources in order to establish common themes (Creswell & Miller, 2000).

In either case of focus groups or individual interviews, open-ended questions were asked in order to elicit participants to tell the story of their lived experience. This flexible, unstructured approach of asking questions aligns with the goal of the interpretive phenomenological methodology, which is to shed light on the phenomenon of interest using the textual accounts of lived experiences (Wright-St.Claire, 2014). To begin the conversation in both focus groups and interviews, the question “tell me about your transition to university” was posed to participants. Responses to this question informed

the path to subsequent questioning, which aided in going deeper than the surface of the story. While an interview guide with potential questions was prepared (Appendix M), the focus groups and interviews being semi-structured in nature intended for responses to deviate from a preordained list of questions. In gaining the participant's interpretation of the phenomenon, their opinions were gathered on things brought up in their previous responses, frequently using their own words. For example, if a participant said a particular behaviour was "not good", a follow up question would ask why they thought it was not good or what, in their opinion, would be a "good" representation of their "not good" behaviour. Ultimately, the participant's story would be "a blend of prereflective, lived experiences and interpretations of the way things are as they are" (Wright-St.Claire, 2014, p. 59).

Both focus groups and interviews were held on campus and were approximately one hour in duration. Participants were compensated for their time with a \$10 gift card to hospitality services, the eateries on campus. Interviews and focus groups were recorded using a digital audio recorder and transcribed within 24 hours of the recording, after which, the audio file was permanently deleted. Participants were not sent the transcriptions to review. However, accuracy of transcription was safeguarded by the researcher listening to the recording multiple times to ensure the text was accurate. This also included listening to the recording alongside reading the final transcription. Participants were informed of confidentiality measures in place, including the omission of names in the transcription. Instead, during transcription participants were assigned a participant number (e.g. P1, P2 etc.). Interviews and focus groups were transcribed verbatim. Field notes were also taken throughout and after the interview and focus groups to describe tone, body language, and perception of feelings of participants to aid in the interpretive analysis of the text.

4.3.5 Reflexivity

The critical reflection of self in taking an active role in co-constructing findings is important for this qualitative research (Mann, 2016). I, the researcher, while having no explicit relationship with the research participants, had previously gone through the phenomenon of interest. While I had my experience in transitioning to university, and my

story may not be unique, I am aware that the students I interviewed all have unique perspectives of their transition. Throughout this research, I attempted to maintain *hermeneutic alertness*, a term attributed to Van Manen (1997), which “occurs in situations where researchers step back to reflect on the meanings of situations rather than accepting their pre-conceptions and interpretations at face value” (Ajjawi & Higgs, 2007, p. 620). Reflective practice was adopted throughout this research where opportunities for thought and introspection presented themselves at the point of designing the research study, in conducting the focus groups and individual interviews, and in drawing conclusions based on subsequent analyses.

4.3.6 Data analysis

Analysis of the data began during the process of collecting data – the ongoing, iterative nature of the data analysis reveals new ways of thinking about the phenomenon. A detailed chart outlining the steps taken in analyzing the data can be found in Figure 13. Transcribing the data also allows for further re-thinking of the phenomenon in addition to acquiring a deep understanding of the text (Wright-St.Claire, 2014). Coding followed transcription and coding of the text was done manually. The process in which transcripts were analyzed followed Smith, Jarman, and Osborn’s (1999) iterative approach for conducting interpretative phenomenological analyses. They note that although the goal of interpretative phenomenological research is to explore the personal perceptions of a phenomenon, at an early stage in the analysis it is important to distinguish overarching themes communally relevant to all participants; thus the analysis is thematic. From there, a more detailed analysis within the themes can be accomplished (Smith et al., 1999). Step 1 involved reading the first transcript and identifying codes or anything of interest to the researcher, line-by-line in the margin. The assigned codes provide indication of what may be going on in the coded text. Codes were identified and organized into a codebook. An excerpt of the codebook is provided in Appendix N. It was also important to reflect throughout the initial coding process to begin to generate possible interpretations of the data (Larkin & Thompson, 2012). After the first round of coding, identified codes were then grouped into clusters in Step 2. This process was repeated for subsequent transcriptions. Step 3 involved identifying themes that were perceived to be shared across

participants. Focus group and interview subsets were analyzed separately, however combined after similar themes were found in both methods. Once the shared themes were identified, Step 4 involved going back to the transcript for another instance of coding. This was to ensure any the themes generated in the previous step encapsulated any extracts that had been previously overlooked. Field notes were consulted throughout the process of the analysis to ensure remarks during the interview/focus group process were addressed. Finally, the search for “patterns, connections, and tensions” (Smith et al., 1999, p. 232) was done in Step 5 through a deep exploration of the themes emergent from the analysis.

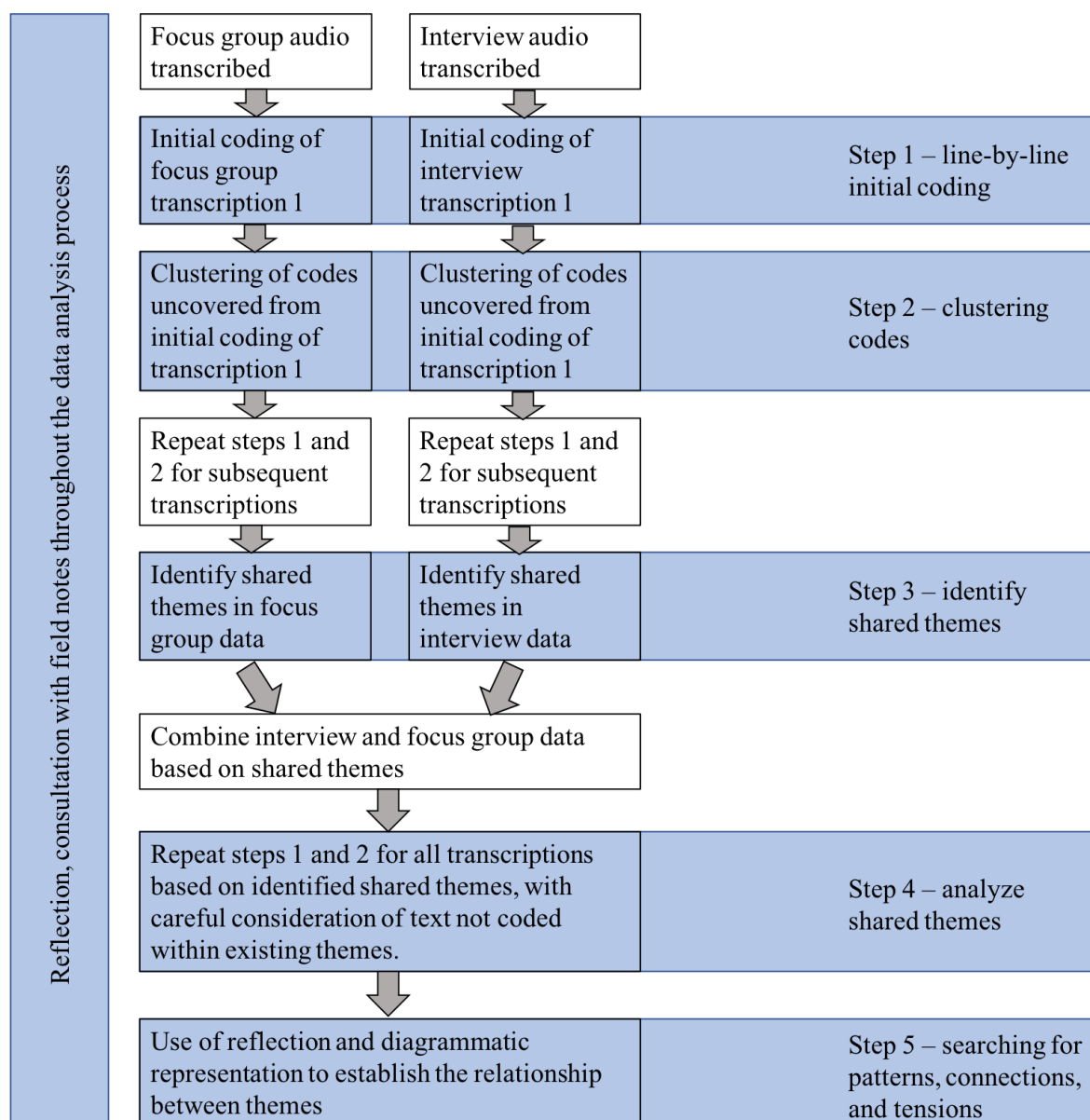


Figure 13 A visual depiction of the data analysis process undertaken in this research study, adapted from Smith, Jarman, and Osborn (1999)

4.4 Findings

The analysis outlined above generated six themes that reveal what it is like to experience the transition to university: Uncertainty, Expectations (and adjusting expectations), Living Arrangement, Pressure, Independence and Identity, and Support. Each theme is

presented with detailed interpretation, including direct quotes with participant number. Contextual information about participants is provided in Table 6.

Table 6 Contextual information about participants (sex, year of study at the time of participation, living arrangement in first year, and international or domestic student). Participant label is further categorized by type of participation method, focus group (F) or individual interview (I).

** While P2.F was an international student, he completed high school in Canada.*

Participant	Year of study	Sex	First year living arrangement	International or domestic student
P1.F	1	Female	Off campus; at home	Domestic
P2.F	1	Male	Residence; traditional style (one roommate)	International*
P3.F	1	Male	Off campus; with roommates (one roommate)	Domestic
P4.F	1	Female	Residence; hybrid style (one roommate, two suitemates)	Domestic
P5.I	2	Female	Residence; hybrid style (one roommate, two suitemates)	Domestic
P6.I	2	Female	Residence; hybrid style (one roommate, two suitemates)	Domestic
P7.I	2	Female	Residence; suite style (single bedroom)	Domestic
P8.F	2	Female	Residence; traditional style (single bedroom)	Domestic
P9.F	2	Male	Residence; traditional style (one roommate)	Domestic
P10.F	2	Female	Residence; traditional style (one roommate)	Domestic
P11.F	2	Female	Residence; traditional style (one roommate)	Domestic
P12.F	2	Female	Residence; hybrid style (one roommate, two suitemates)	Domestic
P13.I	2	Female	Off campus; at home	Domestic

In the presentation of anecdotes from study participants found in the following section, minor adjustments to the text were made. Edits were mainly in the form of removing repetitive text that did not contribute to the overall meaning and overall tidying of the grammatical structure (Wright-St.Claire, 2014). For example, consider the following excerpt from the raw transcription:

I feel like it's more of like like I don't know if you didn't know this but like within like University there's this like like prestigiousness as in like which faculty is better than other faculties.

would be edited to:

I feel like it's more of like, I don't know if you didn't know this, within University there's this like, prestigiousness as in which faculty is better than other faculties.

The meaning is not lost by removing some words, rather the meaning of the text is more adequately conveyed in clearer grammatical structure.

4.4.1 Theme 1: Uncertainty

Participants felt a considerable amount of uncertainty in their transition to university. The transition to university marked a major life change. In anticipation of this change, participants did not know what to expect nor (initially) where to go for support. They had heard stories or anecdotes about the transition to university life but did not know what this meant in their individual contexts. **Figure 14** presents a visual representation of this theme, where it is further divided into sub-themes of academic uncertainty and social uncertainty. Feelings of nervousness and fear had a reciprocal relationship with uncertainties, where outside sources would perpetuate myths about university life and the uncertainties held would contribute to feelings of nervousness and fear. The questioning of participants contributed to their expectations of university life.

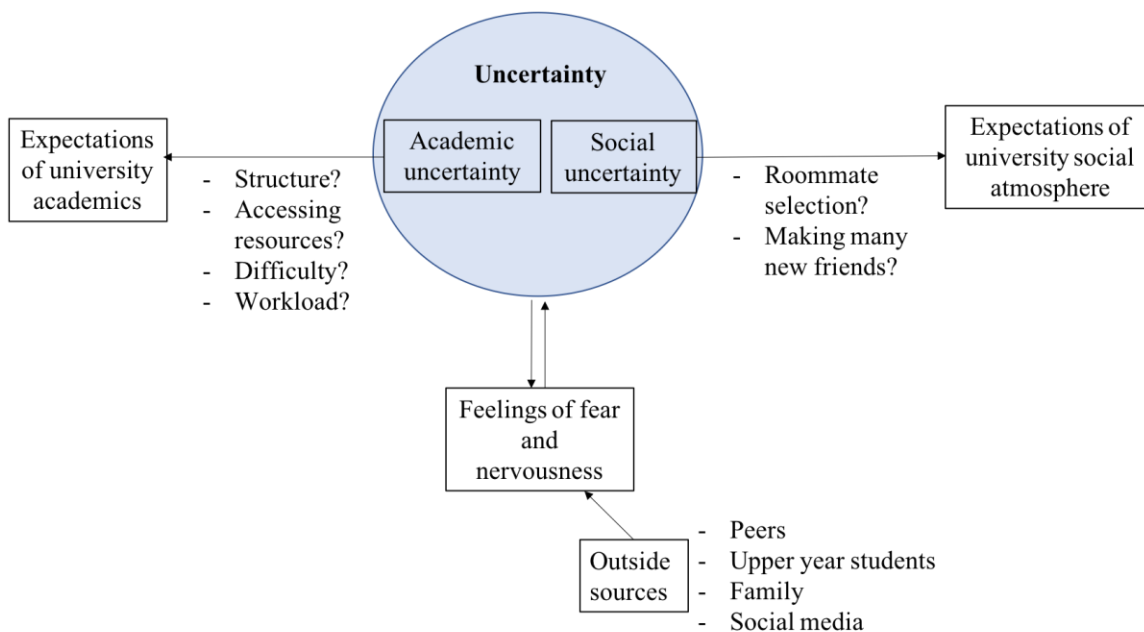


Figure 14 Visual representation of the Uncertainty theme

The uncertainty was often couched within statements of fear or nervousness about what they had heard from outside sources, like peers or parents:

“I found that coming into University everyone sort of not like, not overhyped but over scared me. I came in so nervous - scared of Freshman 15, scared of the mark drop, scared of not getting involved, scared of not getting good grades, scared of not fitting in. All of these different things.” (P5.I)

The uncertainty stemming from outside sources, including social media, pertained to topics covering the spectrum of the first-year experience, including adjusting to the academic and social atmosphere of university:

“I was really nervous coming into it because I feel like social media and stuff, and just like stories from like people like a year or two older than me, they just said it was so hard and like, it's so hard to get passing marks on like, tough courses and that made me really nervous that I wasn't going to be as prepared as I thought.” (P8.F)

Participants were generally uncertain of the social climate at university, expressing primary concerns in the transition to university about the uncertainty of making new friends:

“Coming into University that wasn't even like my biggest fear of like, studying and stuff like that. Mine was more like, making friends like, I don't know if that has anything to do with your studies, but like, a lot of things is like, because I didn't have much friends coming into Western because like, I came from Toronto but a lot of my friends didn't go to Western so that was more my issue” (P11.F)

Especially in the context of roommate selection for participants who lived in residence, they were uncertain about the matching:

“The only thing that really did kind of scare me was not knowing who my roommates were because a lot of people I knew went in like, requesting their roommate, living with their friend from high school, but I just kind of let the university pick for me” (P4.F)

“The biggest concern for me when I came to Western was residence placements because I didn't know where I was going up until like, mid-summer” (P9.F)

Participants were also uncertain about the structure of university. What to expect in classes and tutorials, what are office hours, and how to access resources on campus were among some of the questions participants had while transitioning to university life:

“You have no idea what's flying for like half the year at least. You're like, going to different classes, like, you're going like through the motions of classes” (P3.F)

“It's just like, even like, dental, and I still have the health plan but like I was never told like, how to access or use them or like, who do I go to if I needed them. So I like, at least I live here and I have other resources, but I know that if I didn't have those I would be lost as to how to approach a situation- how to do that.” (P1.F)

“It's just, I felt lonely as well and I didn't know about really any of those resources on campus to help students. Like, nobody talked about that” (P2.F)

At a large institution like Western, there are a multitude of resources available that often overlap with other resources or with aims that are unclear. This particular comment to the uncertainty of resources raised a laugh in solidarity from the other focus group participants:

“I have no idea what that does. I just noticed it there and they have a white board outside with some Post-It’s. I don’t know what they do, but everyone was like, ‘go to the Wellness Centre! They have some cool things.’ Like what do they have? Please tell me I need to know.” (P10.F)

In the unfortunate case of a sustained injury, one participant reflects on her uncertainty in first-year, recalling not knowing about resources available to assist her in getting from building-to-building on campus:

“I was walking like, 30 minutes on my ankle on crutches in the snow because I didn’t know that there was a shuttle that you can get if you’re injured to take you to class. So it’s just like missing those resources that maybe could have helped” (P12.F)

The distressing uncertainty of what the future holds is also prominent in the transition. Although this feeling is recognizable and manageable once reflected upon:

“All these things that I feel like I’m doing now, like I can never feel like I’m comparing it to like what the future will expect of me because I don’t know if like, I’m doing the right thing or not and I feel like it’s so hard to find a person who you can kind of like, bounce ideas off of and they can be like, ‘yes, you’re doing the right thing’ or ‘no, you’re not doing the right thing’ because there is no answer to that. So like, you really are kind of stuck to figure it out for yourself. Yeah, which is just part of the process. I know.” (P7.I)

4.4.2 Theme 2: Expectations (and adjusting expectations)

Upon being asked to reflect back on their transition to university, many participants mentioned expectations or prior thoughts they had about university. These expectations, like the uncertainties above, were developed based on input from outside influences. The expectations, however, were contextualized experiences they expected to have based on

extrapolated information they had heard from those outside influences. An expectation here is a formed belief of what that student will encounter in their transition to university. The theme also encompasses adjusting expectations, as these students have reflected on their expectations coming into university in the context of having already gone through at least one full semester. Figure 15 presents a visual depiction of this theme. Students held expectations of academic demands and the social climate of university. Students perceived the development of a friend network as paramount and felt academics were already largely under their control. Students either adjusted to expectations before starting at university, where they report an expected transition, or had to adjust to university life during the transition, where they felt disappointed and took the opportunity to develop or strengthen skills, habits, and strategies necessary for the transition to university.

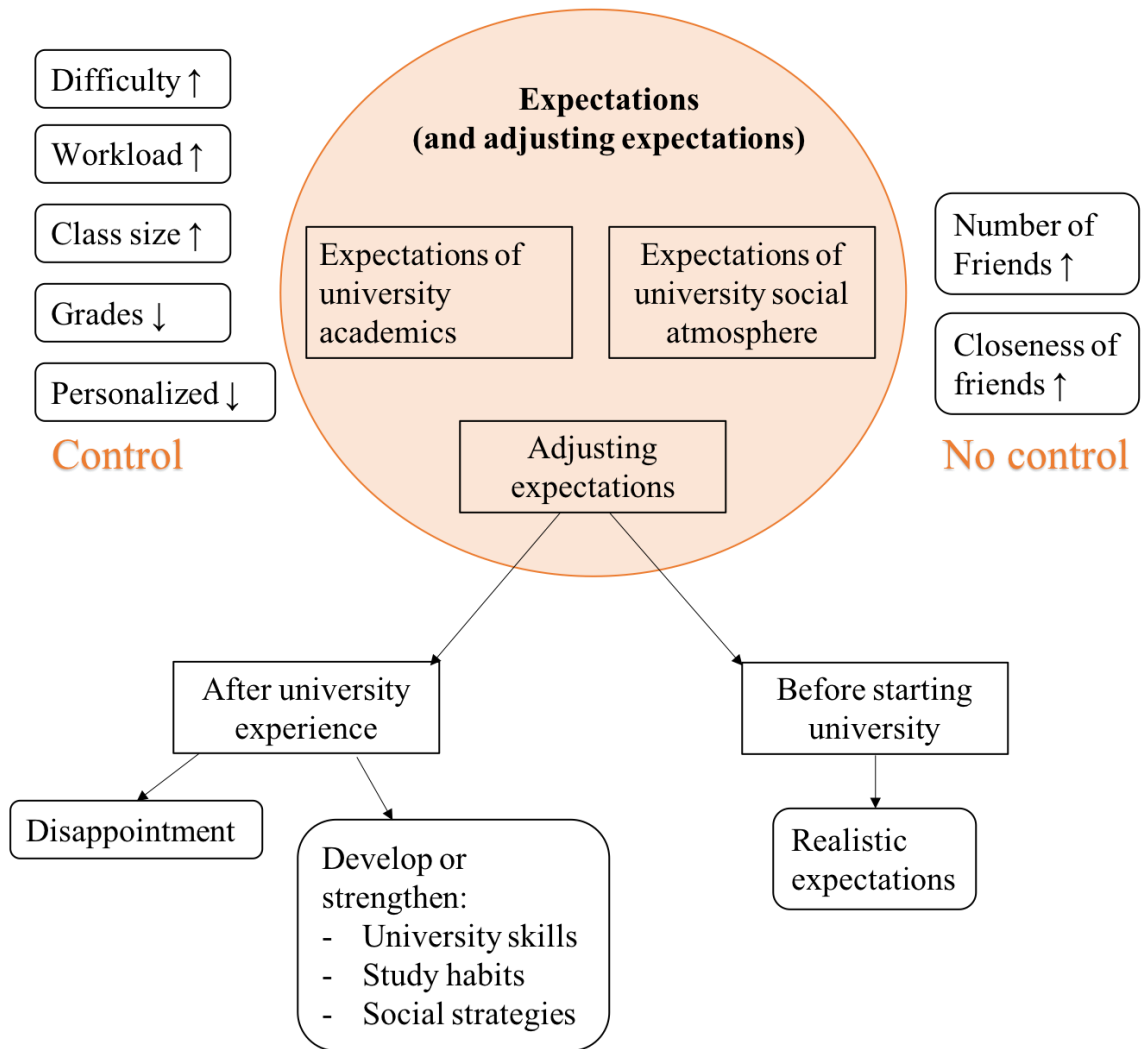


Figure 15 A visual representation of the Expectations (and adjusting expectations) theme

In conversations with outside sources, participants formed expectations on the workload demands, grade shift, and close friends they could foresee making:

“I thought that it would be kind of easy going through first year because I talked to some upper years and they told me first year is like high school plus 1/2. So I was like, okay, well, it shouldn't be too hard then.” (P9.F)

“I did see like, grades drop obviously because I was like a high 90s student in high school and you literally cannot expect that here like, it's so hard. So like, when I did get my first like, 70 and 60 and stuff like that, I was sort of upset” (P5.1)

[on having a roommate] *“in first year, like it didn't meet my expectations because you just realize how like, different values that people have than you. So that was a reality check.”* (P6.I)

Socially, participants expected a connection with their roommates and were disappointed if this expectation did not come to fruition.

“I remember like, I was so excited like, oh, what if my roommate's like, she's going to be my best friend. Like, you know, unrealistic ideologies.” (P6.1)

“I don't know how like Western pairs people up but sometimes it like, sometimes yeah, it's great. Like, you meet great people like, they become your best friend, but like, of course, there's this cases like mine where it's like, yeah, it didn't go as well as you thought it would be and stuff like that.” (P11.F)

Participants also expected to work at making new friends. Interestingly, however, the idea of making new friends and ‘putting themselves out there’ was viewed as out of their control, contrasted with academic expectations which is understood to be within the individual’s control:

“So it's just a bit of getting used to and kind of like, just to switch up like your social game in that regard. Because it's not always like, oh, you're gonna become close with people just ‘cause you're always gonna be with them. It's like no, you'll like, actually make an effort.” (P3.F)

“it's mostly the socializing part that really is the nerve-racking part. In addition to academics, but honestly, I would say socializing. It was more nervous for me than academic part because that's under your control. Whereas the social aspect like, you really have to put yourself out there and like involve yourself with the right crowd.” (P6.I)

The perception of the large, impersonal lecture hall fostered the expectation that professors would not provide one-on-one assistance, but later coming to the realization that the nature of seeking help is different:

“I find that the image that is perpetuated of universities that it's very impersonal like, between you and the professor. So therefore you can't go and ask them for help. So like, even though they say it, the image that's been created in my head of- they're just saying it and it's like, you're not actually supposed to go and ask for help like that because there's too many students. They're helping you, they have to help everyone. And just that image that was around in my head. I think it took me all of like first semester to realize, no, that's what office hours are meant for. You're supposed to go use them.” (P13.1)

“Here I found like, yes, you can make connections with profs but it's just different. So it took some adjusting because I went from like pretty small classes with like pretty small as in like 10 to 20 to here where it's like, you know a couple hundred to a few hundred” (P12.F)

For those who adjusted expectations in transition, they report not feeling disappointed when the expectations were not met:

“It went better than I expected. Like I found I really lowered my expectations just was from like, what I'd heard about other people. But then like, I found it like, I did better than I expected. I just didn't have those expectations.” (P9.F)

However, when expectations of academic demands were not met, it provided a unique, contextualized opportunity to strengthen key university skills:

“I think academic support especially like, adjusting to new, what's the word like, expectations- academic expectations. Writing I found especially difficult because I thought I was, again, I had a strong writing base and then I get some assignments back and I realized that there's room for- always room for improvement and I kind of need some support to see where I could have been improving.” (P1.F)

Adapting study habits to accommodate the new demands of university is a facet of the transition to university that, when reflected upon, can be considered an adjustment of expectations of how the participant would be able to manage their independent learning environment:

“I didn't realize how much like, I studied. I didn't realize how much you have to study in University and you have to constantly keep on studying just because of like, how much information there is and like, how little assessments there are in terms of like, studying.” (P11.F)

“After my first midterm I was like, okay, I need to do the readings because up till the first midterm I didn't really ‘cause I did the readings and then I would do one or two of the readings and I was like, we never talk about this, it's not important. And then after the first midterm I was like, okay, these are important. These are what gets you the 50%- like the other 50%. So I started doing those after, but I think I found that I didn't have enough time. And I think it was more mentally than like, physically like, I think I have enough time, but I was just so mentally exhausted from doing all these other courses that I didn't have enough time to do that.” (P13.I)

In the case where a participant expected she would have enough time to manage a full course-load and also a part-time job, this was not the case and ultimately brought on the need for important decision making:

“In the first semester, especially I had a part-time job and I had a full course load and I was trying to keep up with everything and I ended up dropping a course” (P1.F)

4.4.3 Theme 3: Living arrangement

The living arrangement of participants appeared to be a major facet in the perception of their social and academic transition to university. The contrast between participants living off-campus and in residence is highlighted as a potential area in which difficulties transitioning to university were present. The experiences of participants living in different residence types are also unique, particularly when reflecting back on the social aspect of their transition to university. Figure 16 presents a visual depiction of the contrast between the two distinct living conditions in first year: off-campus and in residence. In supporting the transition, access to key academic and social resources are among the perceived differences between the two living arrangements. Living in residence, where the nature is

inherently social, is also further categorized into styles of residence, where the social atmosphere is either more ‘open’ or ‘isolated’.

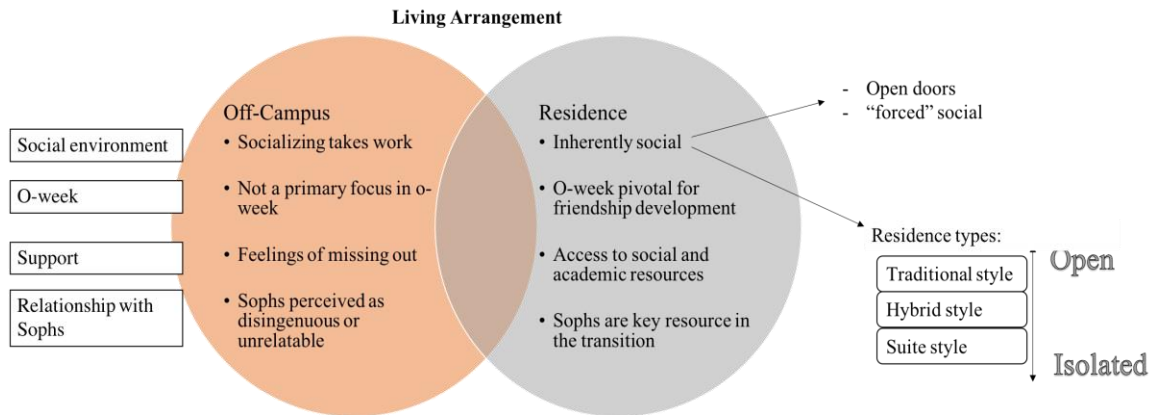


Figure 16 A visual representation of the Living Arrangement theme

Transitioning to living in residence with new people was distressing (see uncertainty theme above), but the perceived ‘forced’ social nature of a traditional residence called for an adjustment to the way friendships were created:

“That’s kind of like, what drove some of my anxieties was just moving from my house to a floor with like, three other people and just kind of get used to it. I felt like I got lucky again, but I just pushed myself a little more harder than I would. I’m like, pretty introverted; I don’t talk to a lot of people even at school, I had like a pretty good like small friend group in high school, but it was like, tight. So that’s what I was kind of looking for when I got to [residence] but their social environment kind of made me have to change how I operate.” (P9.F)

While living in residence was perceived to be inherently social, some styles of residence were more than others. There were three main styles of residences identified by participants. The suite style is four single rooms in a suite with a shared kitchenette/lounge area and shared bathrooms at a 2:1 ratio. The traditional style encompasses two different types of rooms, single and double occupancy. Bathrooms and lounge areas are shared on the floor. The hybrid style shares characteristics of both suite and traditional style. Like the suite style, the hybrid can hold up to four people but in two

rooms (based on double occupancy; single occupancy is also an option). They have a roommate like the traditional style, but also two suitemates. The hybrid style also has a shared bathroom within the room but like the traditional, no shared kitchenette/lounge area. Having a roommate appeared to be a major factor in the transition (see expectations (and adjusting expectations) theme above and support theme below), but the difference in style of residence was perceived to have affected the social transition; namely, the absence or ability to shut others out by closing the door:

“We ended up adopting is we would leave our front door open and if we were in we would leave our bedroom doors open as well. So anyone on the floor could walk in and we trusted everyone on the floor and even anyone in the building.” (P7.I)

“I didn't like living in suite style because I feel like I really missed out on the open door experience.” (P12.F)

“I was glad I got put in a traditional room rather than like a suite style for me just because like, I believe for suite style, so sometimes you have your own room sort of thing and you can like sometimes shut the door or something, but I was glad because it's like, always open doors. So my friends like, unless I actually lock the door myself, usually my friends come in and check up on me and they're like, ‘oh, are you ok?’ and stuff like that and it's just like such a friendly like, it was so good and so supportive” (P11.F)

The participants who reported living off-campus largely felt disadvantaged in their social transition to university due to the perception of not being able to make friends as easily as those living in residence (referred to below colloquially by students as ‘res’):

“I also felt very lonely because a bunch of my friends had moved away for school and I didn't kind of just have like a floor of people or friends to just kind of walk out to all the time and my friends that did go here weren't in the same faculty.” (P1.F)

“You're always with different people and by not being in res, it's a lot harder to kind of like, find your friend group like, you kind of have to go out there and make that for yourself. So like, thankfully I managed eventually but like it takes like, a lot more time

than just kind of being thrown into a res like, with roommates in a crazy floor and stuff like that like, meeting people by necessity.” (P3.F)

These feelings were exacerbated by o-week (Western’s first-year orientation week) due to the perception that activities were geared towards those living in residence and offered little support to those off-campus:

“I think o-week is a lot better for people who live on res just because they have a lot more residences activities and stuff like that. Not only like, for like a week and stuff but like in residences and yeah, I feel like it's just more helpful if you live on res during o-week” (P4.F)

The social inequalities felt by those living off-campus persisted into the first-year, where social activities were perceived to take place in residence and off-campus participants were limited to academic activities for making friends:

“Because we weren't really in any of the socials like, the residence socials and all of the things, we weren't really making friends. And like, we had class friends that you sat with in lectures and stuff. But like, you don't really talk in lectures. You're not really doing anything. So just like ‘hi. Hello. How are you?’ and that's that was it. So that was something that I, and like, everyone knew it was because we were all living at home that like, that's the reason we're not making all these friends or connections. So it was really like, not nice first year.” (P13.I)

The duality of off-campus and residence Sophs, an upper-year student guide through the transition to university (see support theme below), was generally perceived as very useful by those who live in residence, but less so for those living off-campus:

“I was fortunate to have an awesome Soph and I'm now really good friends with my Soph and she was like, a great connection to meet people and upper years all across campus because I literally felt like she knew everyone.” (P12.F)

“The only it like the only thing is like after o-week it's kind of like, especially because being off-campus it's like my like, I had a soph for off-campus, but I didn't really like,

connect with them just because like, I don't really connect with the group that was already off-campus. I feel like it's hard to do obviously because most times off-campus people are like, very different or like, older students so like, it's kind of hard to have that like, connection.” (P3.F)

Living with people who are experiencing the same things at the same time can be relatable, but also potentially difficult because it is unavoidable during stressful periods:

“Mostly during midterm and exam season, especially because it's not only me like it's my roommates and my friends that are stressed and like, sometimes they just give off that energy to you which is unfair and like, it sucks.” (P6.I)

In adapting to living with new people, when minor conflict in residence arose, this occasionally provided the opportunity to practice newfound independence and develop skills in communication:

“When you're living with a completely different set of people like, it comes the point where you kind of have to say something and like, even just living at home I never would have to do that because like, I feel comfortable talking to like my brother my parents. But like, now I think I'm learning to like say like, ‘hey, this is something that's bothering me. Can we kind of like work it out?’” (P7.I)

4.4.4 Theme 4: Pressure

The idea of being pressured or under pressure in some capacity exists during the transition to university life. In between what the student is doing and what they perceive they should be doing, academically or socially, lies the perceived pressure. The theme of pressure was also closely linked with the perception of competition felt by students during their adjustment to university life. Figure 17 presents the visual depiction of the sources of pressure felt by students in transition. Students felt pressure from their peers where the ‘sharing’ of achievement and involvement led to the motivation to also share, achieve, and get involved. Students who self-identified as being competitive by nature felt this pressure, although settling into new university identities calmed this pressure to a degree. Participants also perceived their program to be ‘cutthroat’, where they believe

their peers view the program merely as a stepping stone to competitive post-graduate programs.

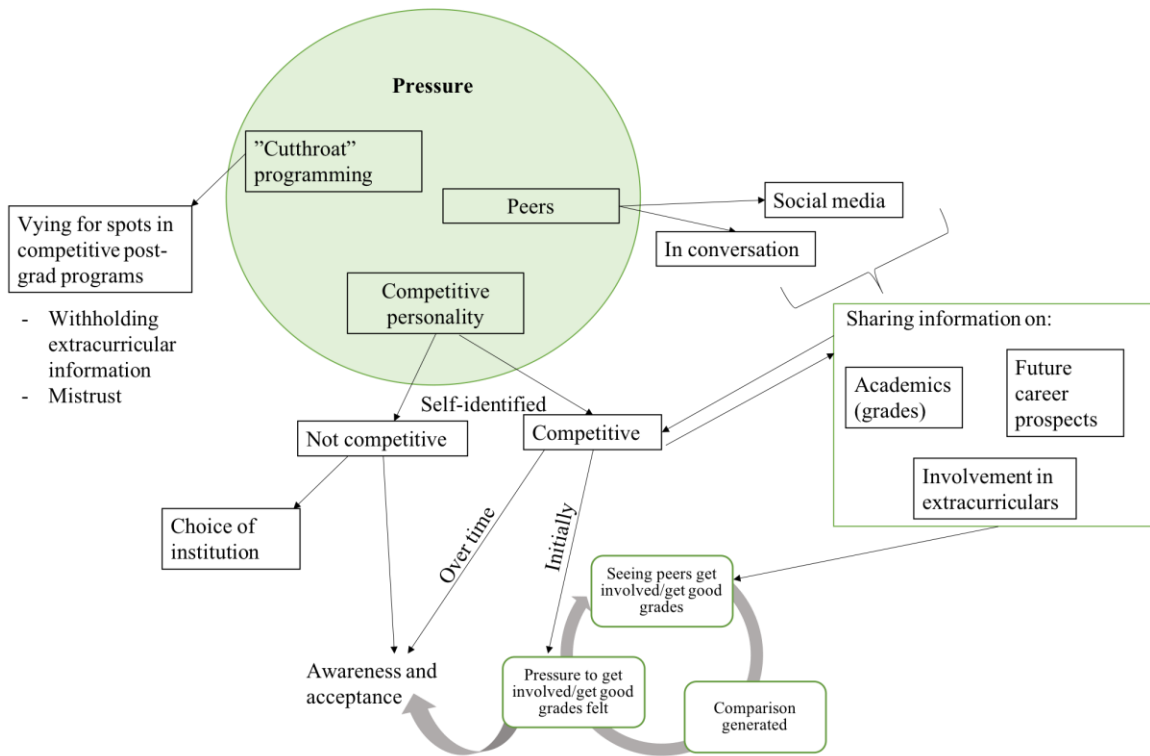


Figure 17 A visual representation of the Pressure theme

The preconceptions of pressure felt between institutions led some to choose Western over other institutions whose environments are seemingly more competitive:

“U of T seems a bit too competitive. So I was definitely down for like a much more like tight-knit like Community-wise” and “I don't want to be super academic or competitive in academics, I want to have friends.” (P3.F)

Despite being perceived as less competitive in comparison to other institutions, participants commented on the pressure they felt in adjusting to academic demands at Western based on what they noticed others were doing:

“I remember the first day coming home from school and there was already kids in the study lounge studying. So it was- and you choose how much you do so you get out what

you put in- so I remember just like coming home and studying because that's what I saw everyone else doing and whatnot.” (P5.I)

Participants frequently commented on the competitive nature of the program, with peers vying for coveted spots in competitive post-graduate programs. This contributed to the perception of the program being cutthroat by the participants entering the program:

“First year like, everybody in Health Science was always like, ‘I’m going to go to med school’, ‘I’m gonna go to like, you know, like Dentistry’, I’m gonna go to this this this. But then I feel like after like they start going into Health Sciences and like, realizing how much more potential there is in the Health Science field, like, I feel like a lot of people are kind of dropping out of becoming a doctor. They’re like, ‘oh maybe like this like, for example, like speech therapy is one more of my things’ and like, they don’t become as much cutthroat.” (P11.F)

The constant comparing of grades or exam performance contributed to the pressure felt by participants, although this pressure was often an encouraging motivator to succeed:

“When people discuss afterwards what their mark is like, sometimes I would be embarrassed to say and I would want to like, study more just for the fact that like, after the exam to be able to be like ‘oh, I got an 85’ or something like that. So I find that there’s a lot of pressure just to be able to fit in with people, or like, not be below where they’re at.” (P5.I)

“It’s really helpful to be like, okay that person in my opinion is really smart and they got this grade. I got this. I need to aim to get the same mark or higher. That’s something that I personally found very motivating for myself.” (P13.I)

“I think that the competitiveness really made me want to do well. Like, I felt like I want to keep up and it also made me want to like, connect with older students and learn about like strategies to succeed just because it felt initially maybe difficult to succeed.” (P12.F)

For many participants though, the pressure felt was perceived to be an inherent characteristic of who they are as a person and not necessarily from an outside source:

“Personally, I make everything a competition just like, within myself, like it's not necessarily between people but more like, just like if I don't feel like I'm trying to beat my last performance or like, compete with myself then I'm not as driven to succeed.” (P12.F)

“For me personally, like I had always just been bred in this environment of like, competition I guess.” (P7.I)

Overwhelmingly, participants felt the pressure to get involved in extracurricular activities, largely from seeing their peers involved in extracurricular activities:

[The competitive atmosphere] *“made me crazy. I joined 12 clubs last year and like, got involved with way too many things just because I felt like, I don't know. I don't even - I do love getting involved. So partly I did it for myself because I wanted to meet people and find the initiatives that I'm interested in but I think I was pushed a bit over the edge by hearing, especially living in residence, people all around me joining things.” (P12.F)*

“Before class and after class the first year students would line up to go meet the profs and to me I was like, why? Like, they're not going to remember you or anything because everyone is just so eager to like, get involved and do all these things and that sort of stressed me out in a sense because it made me feel like I'm so behind and I'm not as like- I don't meet everyone else's standards when it comes to some of that stuff. So that extra pressure of just trying to fit in and trying to distinguish yourself is sort of nerve-wracking.” (P5.I)

Paradoxically, participants expressed feeling pressure to get involved based on conversations with peers who were involved in extracurricular activities. Yet, accessing the extracurricular activities their peers were involved in was difficult due to the competitive atmosphere; peers were not willing to disclose the specifics of their involvement:

“Everybody's not like, willing to tell you like, ‘oh, I'm in this extracurricular. I don't want you to have that extracurricular because that then we're like the same thing but I want to be better than you so I can't tell you guys that’” (P11.F)

“I like, think about this and like, everyone is so open yet secretive. And like, I'm such an open book and I'll tell everyone everything and it's hard knowing that like, you can't really trust people.” (P7.I)

Social media contributes to the pressure felt by participants in adjusting to university life. It can contribute to the secrecy of how the transition is progressing by perpetuating standards with which a student can compare their performance to in the contexts of socializing and extracurricular activities, grades, and future career and academic prospects:

“Instagram and Snapchat is honestly- I just view as like, a social thing. Like trying to show people what you're doing and like, you're having fun and stuff. It kind of like, creates a barrier for how the person might really be experiencing or feeling like, they only show you the good parts of it.” and “since they're only showing the good parts you really start to compare yourself with them. Even if you don't want to it's kind of like, an unconscious thing or a natural thing that happens. Like, you start to see like, ‘oh am I going out enough?’ Like, ‘do I have enough friends to be socializing with?’ or like, ‘am I in enough clubs?’, things like that like, extracurriculars, friend groups, like you really start to compare yourself with them, which is unhealthy.” (P6.I)

“and just like social media and whatnot and as well as thinking about like, what you want to do after school. Like right now I'm looking at speech language pathology and I'm looking at the Reddit threads and ‘oh my average is- or my GPA was a 4.0. I have this much here and blah blah blah’ so I'm like stressed out about it but yeah.” (P5.1)

For one participant, the pressure elicited from the comparison with others led to disordered eating thoughts in her first year:

“I did sometimes like, when it came to comparing myself to others and stuff like that it would sort of affect my eating habits because I lost like a bit of weight in first year and like, I sort of developed some disordered eating thoughts and what not so that was difficult just in comparing myself to others” (P5.1)

In reflecting upon anecdotes for the theme of pressure, this particular quote best summarizes this theme for its ability to capture the multitude of pressures faced by participants transitioning to university life:

“I think like, the biggest problem like, facing my year or my age group is this like, suffocating, crippling anxiety of the future of like, not being able to get the- or like, okay, let's do this orderly. Like, not getting into the professional school that you want because everything's so cutthroat. Or like, doing all your education and not being able to get a job after. Or like, not feeling like you're doing enough now. Like, I remember hearing about people who become like, research assistants and like, you know, exec on this and that and like I feel like some people are doing so much and I feel like I can never amount to that. And even now like, I am a research assistant for one of [professor's name omitted] PhD students, but like, nothing ever feels like enough.” (P7.I)

4.4.5 Theme 5: Independence and identity

The transition to university marked a number of ‘firsts’ for many participants. In accumulating new experiences and adapting to the self-directed nature of university, participants reflected on their newfound independence and how they believe it helped shape their identities as university students. For many participants, this was the first instance of living outside of the family home. This granted the opportunity to exercise newfound independence in the new environment as well. Figure 18 presents the visual depiction of this theme, where actions taken in exerting independence in the transition to university help shape identity. In transition, participants made choices for themselves, developed new skills, and experienced a loss of convenience in the forging of their new identity as a university student.

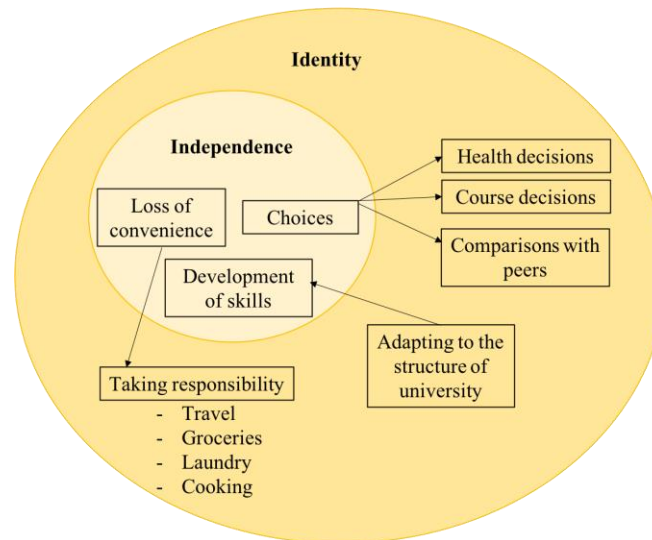


Figure 18 A visual representation of the theme Independence and Identity

Independence was exercised in the form of choice: choosing what to eat, choosing what courses to take, and choosing to exercise. Regarding health decisions, this led some to develop unhealthy habits. But given the chance to cook, healthier options were consumed:

“It's the perception of control. Like, I choose what I want to do and all that stuff so I started to eat like, a lot healthier in first-year and I found that that made me feel a lot better about myself” (P5.I)

“I was also excited for kind of getting to learn about the stuff that I wanted to learn instead of having to like, in high school get all those like prereqs for the program. Now I'm finally in that program and now I can finally like, find what I love.” (P1.F)

“I wasn't eating that great. Like, I find this year cooking, I'm able to like, cook stuff I like that's also good for me. Like, I was eating pretty poorly like, the res food. It was really easy to like, go get chips or ice cream or something like at any time in the night” (P8.F)

“It was my first time not being on a high level competitive sports team and that was always a structured form of exercise for me.” And “I felt awful just because I went from such a high level of activity to having no structured activity and having to go to the gym on my own time, which first of all, I just wasn't used to planning that into my day. So I

initially like, it didn't come easily just because, I don't know. It wasn't a priority because before exercise and physical activity is a priority to me but not before, I never had to plan it myself” (P12.F)

For many participants in their transition to university, the gain in independence was coupled with loss of convenience:

“I don't have a car so the inconvenience of like having to walk or bus everywhere adds on an extra hour almost so I just like, I miss how easy it is at home and stuff like that and that sort of adds stress sometimes.” (P5.I)

“It's very easy kind of like, not take responsibility for certain things because it's kind of you expecting it to be kind of taken care of for you. So I think certain aspects have to be, you have to go and say ‘oh, well, now I guess I'm responsible for this this and this. Well, how can I make that work?’ How to do things so you're not like pinning it on like someone else as their job, like kind of being very very independent. Adulting” (P3.F)

“Like, my mom did my laundry my entire life. So coming here I didn't realize how fast laundry piles up and then I would have four loads of laundry to do in a day and that takes hours because like, the cycle takes 50 minutes in the wash and then you got to dry and, yeah.” (P12.F)

During the transition, learning new skills or adapting old skills in order to succeed in university was frequently discussed within the context of adjusting to the self-directed pace of university:

“I managed my time pretty well [in high school] and I was involved in a bunch of things and still like, managed to do them all like, to my degree of satisfaction and I thought I could carry that over here and then I realized that I just kind of need to adapt to the situation and just kind of like improve upon my skill. So whereas before yeah, I could spend hours watching movies and still do everything now I had to realize that there's a bit more that's involved in getting the grades you want or like, where you want to be, progressions in your courses, and stuff so you have to like, adapt. So I think I had a basis and now I'm kind of just like, adapting to the new environment for it.” (P1.F)

“I was just kind of like juggling a lot of things and thinking I had a lot less time than I really did. And then once I actually planned it out put it down on paper what I had, then it became a lot easier to kind of like, manage that, feel less stressed. It just looked like I had a lot more time on paper. So I felt a lot better about it.” (P3.F)

The adaptation of skills or learning new skills in the transition to university were reflected upon further and considered a stepping stone in the formation of new identities:

“It's really I think important as well and just kind of building your character and kind of improving all the skills you already have or like developing new skills. Like I feel like after starting University, I was horrible public speaker. But then I decided to step out of my comfort zone and apply to be a tour guide and now every week I'm guiding like groups of 40 people around my residence and it's like I never thought I would be doing that because I hate public speaking.” (P4.F)

“I think if you had like, a really crazy busy first year, I think it's good because it means that you won't have to- it means that you're the kind of- at the end of all that you'll know exactly what you kind of want to do in University and that you'll kind of foster like, those goals.” (P3.F)

“I learned that I needed to like be able to depend on myself too. And I didn't always need to belong to something but like, I love both. I love like, being part of something bigger than myself.” (P7.I)

Settling into a new identity of ‘average’ after previously identifying as being ‘at the top’ was also discussed as being a by-product of the transition and its many facets. This shift, however, was comforting:

“I come from a smaller town like, I came from the top of my class and then just being put like smack dab at the bottom like, average and stuff like that. It sort of- it was honestly like, nice. I liked seeing that.” (P5.I)

“In a way I wasn't as upset about it as I was in grade 12 because grade 12 when like, I didn't get the mark I was like, this is it my whole life is over. Whereas in University, I think I realize that class, it's just one part of my life. It's not my whole life” (P13.I)

4.4.6 Theme 6: Support

Participants sought support from their family, friends, members of the university community, and in consultation with resources available to students adjusting to university life. This theme outlines the modes in which participants perceived they received support for their transition to university (Figure 19), separated by type (academic, emotional, social, or a combination of the three).

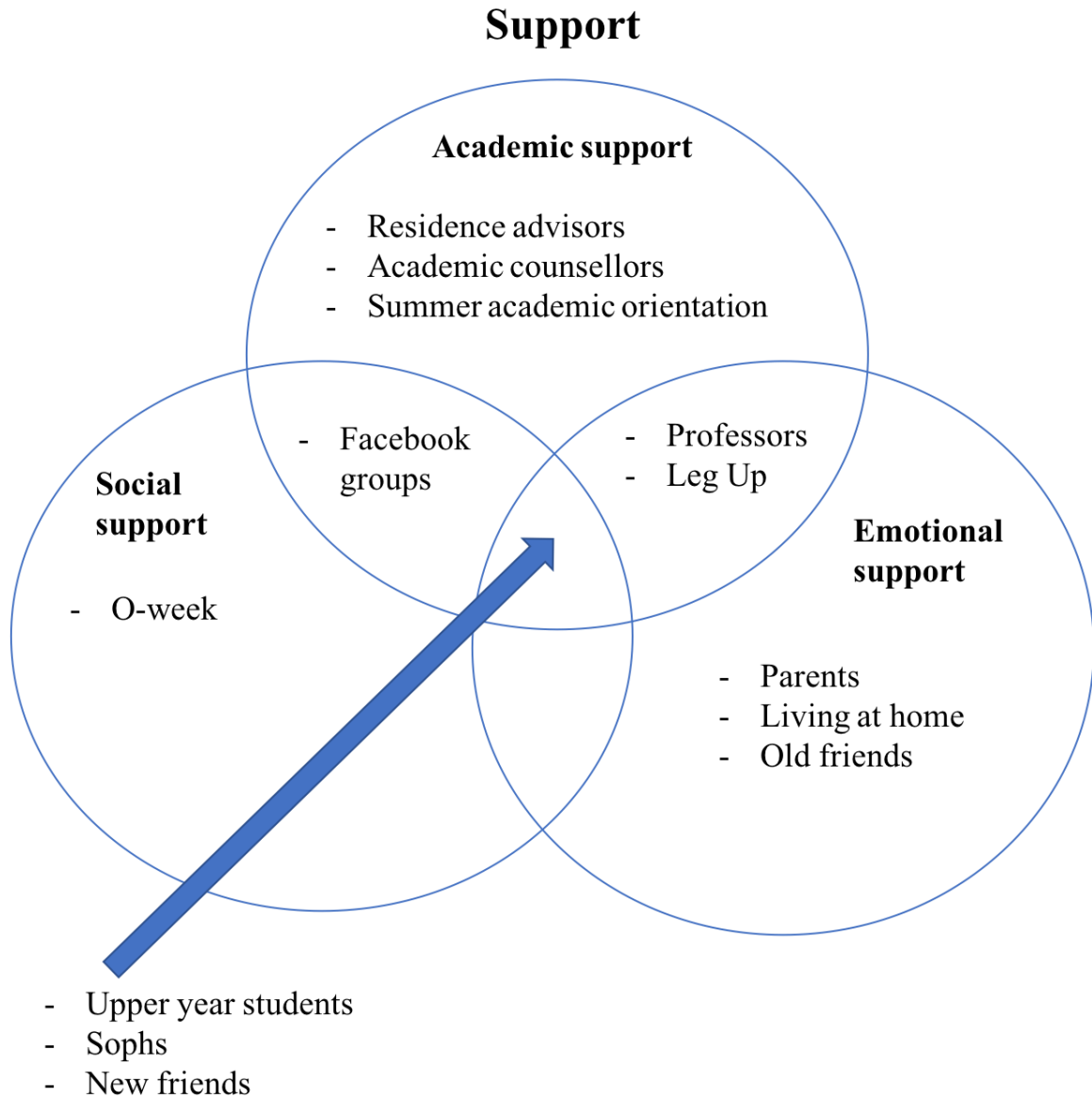


Figure 19 A visual representation of the Support theme

Leaning on parents for support was mentioned by nearly every participant. The capacity in which parents provided support was not limited to but mostly concerned emotional support. Parents were the primary sounding board for the participants' feelings. This also helped alleviate feelings of homesickness early on:

“When it comes to like ranting, in first year oh it was so much. It came to the point where like [my parents] were starting to get worried. So then I had to stop talking to them about

that because I didn't want to worry them even more even though it was on my chest. Like, I just had to find another way of dealing with it” (P6.I)

“I talked to my parents- both of them twice a day. Like, call my mom- so like, I'll wake up at 7:00, my mom's first break is at 8 so I call her and then I'll call my dad right after and then like we'll go about our day. Or I'll text them in between and then come home and I'll call them again. And so like, I never feel like I'm missing my parents because they're always there with me. Like, I like tell them what happened that day or whatever I'm feeling.” (P7.I)

Familial support for those living at home extended to the feeling of being separated from campus. The support of having the comforts of home helped in maintaining an identity outside of being a student:

“It's actually really nice because it's the nice like, breather from everything else going on and it reminds you that like, you're not just a student that you're also like, something else. Like, your identity is not just being a student” (P13.I)

Having an upper year student mentor or friend was seen as a highly valuable, relatable resource in the transition to university. Upper year students were experienced students who offered ‘insider’ information about the uncertainties of university structure and course content:

[On upper year students] *“they were like coming to me from like, a friend perspective and kind of being like, offering some like, words of advice like, ‘oh, this happened to me too like, don't worry’ that was also helpful just like friends and family.” (P1.F)*

“I felt a lot of help came from certain upper years that I talk to or that I made friends with; kind of gave me a lot of insight into courses and encouragement and tips for studying. It's a little bit more relatable when I get to talk to an upper year.” (P9.F)

One of the ways Western formalizes upper year student mentorship into the transition to university is in the use of Sophs. A student would typically be assigned a residence Soph (or off-campus Soph) and a faculty Soph (sometimes referred to colloquially as “facult”

Soph, pronounced by students as ‘faq’). These individuals help orientate new students into university life and are the facilitators of o-week. Many participants viewed Sophs as mentors by providing academic, social, and emotional support:

“I’m still really close with my Sophs. They were really helpful and we kind of still have like, an ongoing relationship. So that’s nice. They’re kind of good like, mentors for me and my transition experience.” (P1.F)

“My Sophs and my Dons, like, they really really helped me with like, finding resources and just like, making friends. Like they made our floor like a family like, they were sort of the main cause of that I guess.” (P5.I)

Not everyone shared in the Soph mentorship experience. Some had a less favourable experience with their Sophs, possibly impacting their transition:

“I didn’t have a facult Soph my first year and because she had to go to Dentistry school. So I didn’t really have like, a Soph to look up to during my first day or like, to get answers and stuff. And then my res Soph- she was she was another story like, she slept at like 8:00 p.m. She got mad at us whenever we got to a little too loud.” (P11.F)

“I found it to be like, even like, I had a Soph first year. I don’t really contact her or like, connect with her because I just found it to be a very like superficial level like, relationship. And I found it to be very fake where they’re just doing it because like, they’re in that position and, I don’t know why they’re in that position but like, you know, it’s just to fulfill like an obligation. I didn’t think it was something where they actually want to help, where they actually want to know what’s going on or like things like that. So I just didn’t feel like, the genuineness of it.” (P13.I)

The support offered by Sophs further illustrated the perceived differences between participants living in residence and off-campus (see living arrangement theme above). Consider the two excerpts below, where the first participant mentions her Soph as being a very helpful resource in accessing previous exams for practice. Contrast that anecdote with one from a participant who lived off-campus who felt at a disadvantage for not having those highly sought-after resources, presumably available to students in residence:

“I had like a really amazing faculty Soph. She was really great. She like, made a Facebook group and always uploaded exams that she had like, practice exams that she had and there's a couple times like, in the floor lounge she'd like hold a meeting about like, things to know for a certain class or like how to like, she even ran a session on how to apply to be a soph.” (P8.F)

“I do think first year one of the other things that I always felt at a disadvantage because other people had past exams like, past like things to help them go through the course or help them have an idea of what the exams- cause like, we were all in first year like, what the exams would look like, cause we hadn't had exams like this and I felt quite a disadvantage because I didn't have those resources and I didn't know where to get them.” And *“Those resources actually being available to all students would be pretty great. Yeah because like, I don't think for any of my classes we had practice exams. It was just certain kids had practice exams and that was enough to do a little bit better because they have an idea of how the questions were going to be asked or what type of questions were going to be asked so like I found that to be something helpful that I wished I could have had.” (P13.I)*

Friends were also frequently mentioned as providing support during the transition. Previously held relationships (i.e., not a product of starting university) offered participants a base on which they can connect and relate in discussing their new experiences at comparable institutions knowing that the other person shared similar pre-university experiences:

“Messaging my friends and my parents and just like, talking about it because I have a few other friends that go to other universities. Like, I have one friend that goes to OttawaU and then I have- most of my friends go to Nipissing but talking to my friend from OttawaU and actually like, confronting these feelings that I'm feeling with her was nice because she felt like the same thing most of the times and sometimes other people wouldn't understand it. And since I didn't have to actually say it loud and it was just through text it was easier I guess but it was nice to have someone to be like yeah your feelings are valid I feel the exact same way.” (P5.I)

New friends, especially those formed in residence, provided support in navigating the complexities of socializing in university. This helped form participants' sense of community and belonging:

“Definitely getting to know the people on my floor, it made me feel like I belonged somewhere again and perhaps like, that's one of like the bigger problems I had. I had always belonged in high school” (P7.I)

“I consider myself pretty lucky that my floor was like, super friendly and that definitely helped with the transition. It was mostly that social aspect like, ‘oh, what do I have to do to fit in?’ and I guess I got lucky it's like random chance.” (P9.F)

“Even though like we all have like, of course within the floor you have your different friend groups, but like, it was good because everybody was so open. So like, whenever there's a party or something, everybody would just go to that floor, even if it's like, International kids or anything like, we all go to like one room and stuff like that, just like, bond over there. It was really good.” (P11.F)

These newfound friends also provided emotional support in helping to relieve stress:

“I usually just like, go into someone's room just to chill out for a little bit, usually just like, calms down my stress” (P8.F)

“Just like, taking nights off and stuff like that like, I studied a lot but sometimes my friends would be like, ‘we're going to take the night off and watch a movie’ or ‘we're going to do a face mask’ or something and I'm like, I need this I'll get on this tomorrow” (P5.I)

There were a number of university representatives who were frequently mentioned in the context of providing support. Professors, for example, provided participants with academic but also emotional support in transitioning to university:

“When I went into my first classes my first year profs are pretty good with telling us about the like, Success Center workshops I guess, about taking multiple choice tests, how to budget, they're pretty good at getting those resources out. As well as just like, taking

you back down and being like, 'don't worry, I'm on your side. You don't have to stress out about it' so I really liked my- especially the Health Science first year profs are really good.” (P5.I)

“[Professor’s name omitted] said like, you'll sit in a class one day and you'll know like, that light will go off in your head and like, you'll know this is what you want to do.” (P7.I)

Residence advisors (RA) and faculty academic counsellors were also mentioned when discussing institutional supports in the transition to university. They helped mostly with navigating university resources:

“Especially my RA he was great. They're so experienced. So yeah, I would say RAs also give you a bunch of resources and they're always like 'oh, text me if you need anything' or 'I went to this and it really helped' so they're a good source for you to find.” (P6.I)

“The tutorials for Health Sci, too we only had them once a month but with the academic counsellors coming in and sort of like, explaining how to do the intent to register, showing us specific like, to Health Science- what our opportunities are, I thought that was really helpful, too” (P5.I)

Specific events or resources aimed at helping students transition to university were discussed in the context of providing support. O-week offered students support in their social adjustment to university by providing the opportunity to develop a friend network:

“O-week was really fun and basically all of o-week, that's how I really got close with my roommates and like, my suitemates and stuff as well as the rest of my floor. Like, yeah during o-week our whole floor hung out and then after that kind of like we've kind of made our own friend groups and then our floor is still super close” (P4.F)

Summer academic orientation (SAO) was helpful in the adjustment to university academics describing the university structure, understanding module requirements, and receiving assistance in course selection:

“SAO- it was helpful especially in like, course selection and like, modules. I was really confused about those at first like, ‘what is a module?’ and all this and that. So now I’m thankful that I went to SAO because now that we’re doing like, intent to register like, ‘oh yeah, we talked about this already’ and I kind of know what I want to do.” (P1.F)

Leg UP, the School’s pre-university online course, provided academic support by exposing students to content they later encountered in their courses. By providing bonus grades to students who completed the course that can be applied to their university courses later on, participants perceived Leg Up as an institutionalized mode of supporting the transition:

[in discussing Leg Up content] *“we learned about the Erikson Stages of Development or something like that I don’t even remember what it was right now but- no, it was Erikson’s Stages of Development and that I thought was helpful because that was on my first exam so I had it like already memorized so I really liked that” (P5.I)*

“Yeah people are always like, joking about how like, profs are so hard and like, nasty and everyone’s like failing. But yeah, I found that it wasn’t really like that when I got here. Like, there’s the Leg UP to try and help you like, get a few little bonus marks” (P8.F)

Social media, specifically Facebook, appeared to be used frequently by participants as a source to access university resources, meet people, and connect with club members:

“I was on the Facebook page and they shared opportunities and resources all the time and I thought that was really helpful like, now being off campus, sometimes I don’t hear about all of these experiences that I had in res.” (P5.I)

“Facebook - it is primarily for like, groups like, staying in contact with club members and your program or any updates” (P6.I)

[on the shared graduating class Facebook page] *“There’s like a Facebook group for like, everything and if you post your bio and if you see someone like, ‘oh this bio looks interesting’, they make you like, message them and become friends.” (P3.F)*

4.4.7 Relationship between themes

Each theme encapsulated a variety of subthemes and within each subtheme there were demonstrative examples, as presented through anecdotes. There is a complex relationship between themes as they relate to the overall experience of transitioning to university. Figure 20 offers a representation of the relationship between themes. This complex, highly connected visual represents the lived experience of first- and second-year Health Science students' transition to university. Expectations of university life are developed as a product of uncertainty. In adjusting these expectations, participants sought support in some form. The type of support perceived as useful by the participant in their transition depended in part on their living arrangement. Nonetheless, participants accessed support in their transition to university to assist in their adaptation of the structure of university. In adjusting to the new structure of university, participants exercised a great deal of independence which may have affected their identity development. Participants were able to make choices that affected how they adjusted to university life. Many felt the pressure to get involved or succeed academically based on comparisons made with their peers.

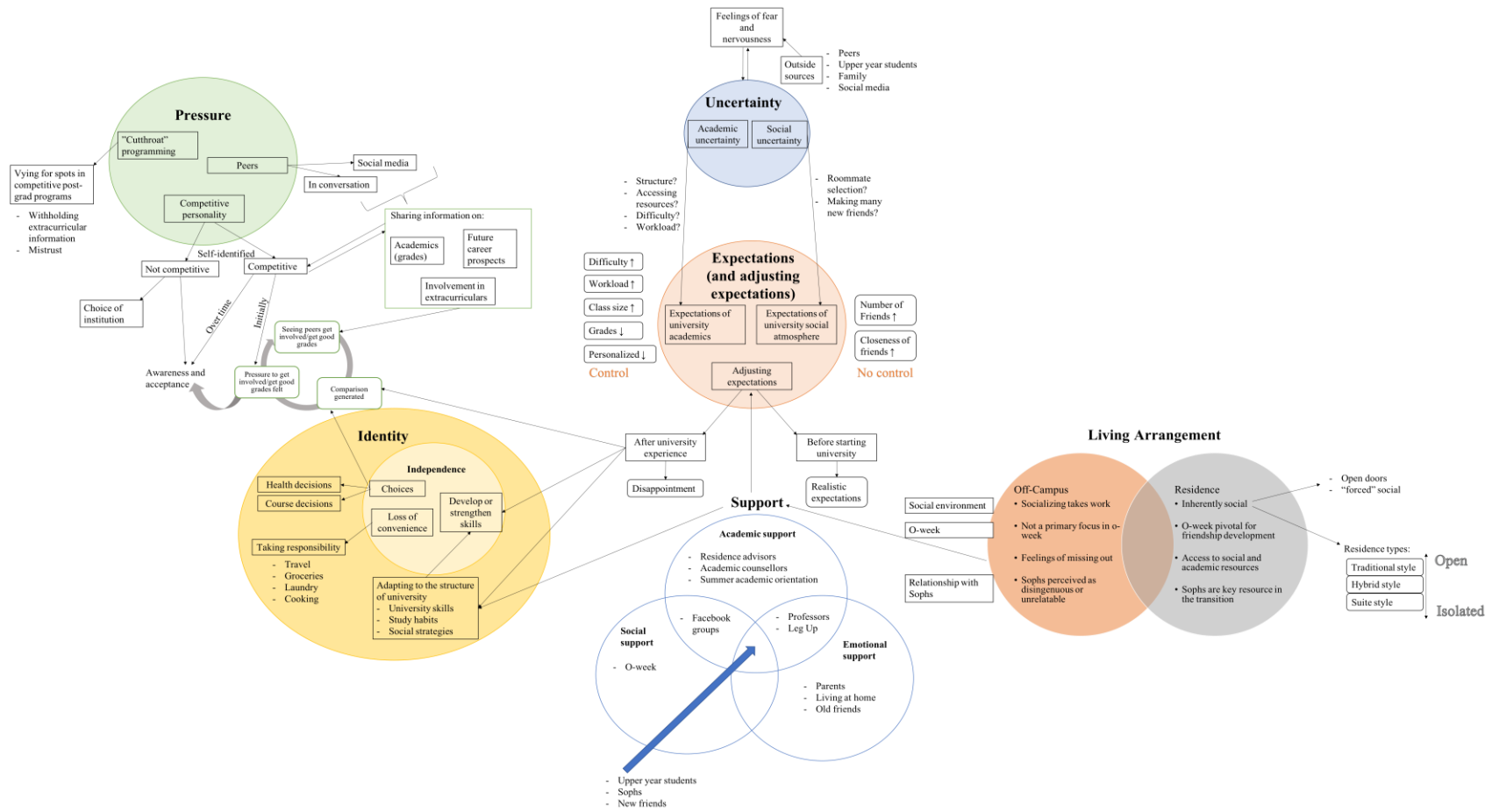


Figure 20 Diagrammatic representation of the relationship between themes uncovered in the interpretive phenomenological analysis (Uncertainty; Expectations (and adjusting expectations); Identity; Pressure; Living Arrangement; and Support).

4.5 Discussion

This qualitative study offered an interpretive phenomenological analysis of focus group and interview data concerning the transition to university. Specifically, this research sought the answer to the question: What is it like for first- and second- year students enrolled in the School of Health Studies to transition to the University of Western Ontario? Following Smith, Jarman, and Osborn's (1999) strategy for interpretive phenomenological analysis, the focus group or interview data from 13 participants was thematically analyzed. Six themes emerged from the study: Uncertainty, Expectations (and adjusting expectations), Living Arrangement, Pressure, Independence and Identity, and Support. The findings suggest that participants who started university with unrealistic expectations or uncertainty about university life needed to adapt their academic and social practices to better suit the new environment. The new environment was filled with peers who seemed to do well academically, were involved in extracurricular activities, and had a well-defined pathway to a career. Comparing themselves to their peers placed a considerable amount of pressure on them, which influenced the choices made at university. These choices helped the participant exert their newfound independence and shape their new university identities. During this period of transition, a strong support system covering academic, social, and emotional domains was helpful.

4.5.1 Upper year peers as a comprehensive support in the transition to university

Peer mentorship for students adjusting to university has been well-documented in the higher education literature as one of the best-practices for promoting post-secondary student success (Collier, 2018). Studies investigating peer mentorship in higher education generally approach the topic empirically and from an institutional lens; rarely gaining the perspective of the student themselves (Lunsford, Crisp, Dolan, & Wuetherick, 2017). In this study that collects first-hand accounts of students who have transitioned to university, peer mentorship, usually in the form of Sophs or other upper-year students, were among the most frequently identified supports by participants in the academic, social, and emotional adjustment to university. When participants reflected on what

helped them through their transition to university, peer mentors offered guidance in accessing valuable academic resources, provided emotional support by ‘checking in’ or offering words of encouragement based on previous experience, and arranged opportunities for social interaction so students could develop their friend network. In a comprehensive review of the literature on mentorship programs, Lundsford et al. (2017) synthesized the purposes of mentorship programs for undergraduate students. They extracted four overarching purposes: increasing persistence, easing transition, preparing for challenges in university, and supporting underrepresented students. However, it is noteworthy that Lundsford et al. (2017) approached “mentorship” with a broad definition, encompassing both peer mentorship and faculty/staff mentorship. In adjusting to university academics, peer mentorship programs specifically have the potential to impact first-year students’ academic achievement (Fox, Stevenson, Connelly, Duff, & Dunlop, 2010). However, the benefits of a peer mentorship program can extend beyond academic achievement. An undergraduate peer mentorship program at Griffith University in Australia aimed to ease the university transition of their students by offering a peer mentoring program through the first six weeks of their first semester. First-year students were matched and paired with upper year students based on their program of study. An evaluation of this program by O’Brien, Llamas, Services, and Stevens (2012) suggested that students who took part in the peer mentorship program reported lowered feelings of stress about university and belonging. The findings from O’Brien et al. (2012) are echoed in this study, where participants who expressed receiving peer mentorship, either formally through Sophs or informally from an upper-year student, helped them adjust their expectations of university life by providing insider information about what their academic future may hold.

4.5.2 Living off-campus as a barrier to accessing transition resources

Support offered by Sophs during the transition to university was most frequently mentioned by participants who lived in residence in their first year. This was sharply contrasted by those who lived off-campus and who perceived to be at an academic and social disadvantage based on their living arrangement. Access to resources such as past

exams or social activities were among examples of resources perceived to assist in the transition to university and to which students living off campus experienced barriers in accessing. To provide context as to the proportion of students living off and on campus, according to Western's Residence Offer Book for 2018 (2017), approximately 20% of first year students at Western live off campus. This book also agrees with students' perceptions of inequality of support for those living off campus by stating "80% of first-year students choose to live in residence, giving them an academic advantage and easing their transition to university" (p. 4). This statement is supported by the fact that students living in residence achieved higher grades than their off campus counterparts (Western, 2017). The greater literature exploring the facets of student life suggest housing is influential on students' success in university, as measured by academic achievement and retention (Muslim, Karim, & Abdullah, 2012). The supports offered to those living in residence can include "Prof Meet and Greet's events, exam review sessions, peer study groups, and academic skills workshops" (p. 5). While Western guarantees first year students residence placements, the characteristics of those who decline this option may vary from those who choose to live on campus. For instance, Beccaria, Rogers, Burton, and Beccaria (2016) suggest differences between those living on and off campus relate to the student's age, gender, employment status, and family responsibilities. Off-campus students are most likely older, female, employed, and/or have dependents living at home. Historically speaking, these students may already be at an academic and/or social disadvantage. Would not being able to live in residence and access key transition supports exacerbate this disadvantage? In this study, the participants living off campus expressed a lack of support in their transition in comparison to the supports perceived by their peers living in residence. Regardless of whether off campus support was offered to these participants, the idea that it either was not perceived as being useful or they did not know it existed presents an area where further research is warranted.

4.5.3 Expectations of university life

Students starting post-secondary education bring expectations of university life; some of these concepts may be unrealistic and may ultimately affect their satisfaction with the institution (Money et al., 2017). Students may withdraw from institutional activities or

from the institution itself if they feel their expectations are not met or managed (Byrne et al., 2012; Hassel & Ridout, 2018). In this study, participants reported expectations they held in their transition to university, primarily about the changing academic demands and social atmosphere. These expectations, perceived to be generated based on stories and experiences of others, were either adjusted before starting university or after feeling the disappointment of having them unmet. The literature suggests incoming students hold expectations about a variety of factors concerning university life. Prymachuk, McWilliams, Hannity, Ellis, and Griffiths (2019) stressed the importance of student expectations for a good transition experience. In their qualitative analysis of first-year nursing students' reflections on the transition to university, managing expectations was one of the two overarching themes emerging from the data. Students' expectations affected their transition to university-level academics, guided how they formed their new support networks, and affected how they conceptualized their new independent learning environments (Prymachuk et al., 2019). Students may have accessed increased support from their high school teachers, who had a vested interest in the progression of their students, which would lead the students to expect this same personalized support from their university professors (Brinkworth, McCann, Matthews, & Nordström, 2009). Accordingly, students expect their professors and institutional administrative staff to be friendly, accessible, and well-informed about the content they are teaching or the institutional processes, respectively (Baloo, Pauli, & Worrell, 2017). Knapp and Masterson (2018) explored the concept of psychological contracts students hold with their professors and uncovered students' feelings that their professors promised individualized attention. In reality, actualizing this promise within a large class may not be feasible. In the first-year student cohort of their study, this psychological contract was developed within the first few weeks. In contrast to findings of Knapp and Masterson (2018), several participants in this study did not expect individualized support from their professors. They later adjusted their expectations after coming to the realization that support from their professors was still a possibility, albeit the process of accessing support was different from high school. Office hours, for example, was mentioned by participants as a means to access individualized support from professors. In a recent study examining the expectations of students starting university, Hassel and Ridout (2018)

uncovered unrealistic expectations of the learning environment held by students. Especially in the younger group of students aged 18-19, they expected the professor to provide extensive written notes. Those who were 20 or older did not share this expectation to the same extent. However, they also uncovered that students hold largely realistic expectations of university. For instance, 60% of students indicated they expected to struggle with the increase in workload, 50% thought the pace of instruction would be too fast, and approximately 90% anticipated they would have to rely considerably on independent learning. While many of the participants in this study expected an increase in workload, several reported having to adjust their study skills to adapt to the independent learning environment, noting their strategies used in high school were no longer effective in university.

4.5.4 The ‘sharing’ effect: Pressure from comparisons

In this study, participants frequently expressed frustration in seeing their peers constantly “doing”: achieving, getting involved, making connections. This was frequently expressed as being a positive motivator to study, join clubs, and reaching out to professors. However, this motivation was synonymous with feelings of pressure and inadequacy. The cyclical nature of seeing others “doing”, making that comparison against their own practices, feeling the pressure of inadequacy, start “doing”, only to see others “doing” more, etc. can feel overwhelming. According to Festinger’s (1954) social comparison theory, individuals draw opinions on their own abilities based on comparison with others. Personality traits (such as a preference for competition) may affect the way a person feels about him or herself through this comparison (Buunk, Zurriaga, Peiró, Nauta, & Gosalvez, 2005). While sharing achievements is not a new phenomenon in university, the omnipresent use of social media to foster connections between individuals is relatively new. In a report on social media usage by teens (13-17 years old), Pew Research Center (2018) reported 97% of this age group stated using at least one form of social media, with the platform YouTube (85%) having the highest usage, followed by Instagram (72%) and Snapchat (69%). Where casual acquaintances from class may not have developed into a meaningful friendship in the past, they may now connect through social media. In following and sharing with their peers, students may feel pressured to portray a

personality for social media, where their motivations for sharing can affect what they choose to disclose (Kim, Chung, & Ahn, 2014). In an examination of sharing behaviours of university students, Kim, Lee, and Elias (2015) suggest intrinsic rewards to self-esteem and extrinsic rewards from social recognition may impact an individual's motivation to post. Furthermore, in a model predicting diagnoses of depression based on Instagram posts, Reece and Danforth (2017) argue depressed participants were more likely to post more pictures of their face, and they were also more likely to post more frequently and without filters. An individual could be following and drawing comparisons from an Instagram account of a poster who may be depressed in their 'real' life. For the consumer of this carefully curated information, Lee (2014) finds those who frequently draw comparisons based on information shared on social media are also more likely to have negative feelings about the comparison drawn. Therefore, for someone who frequently engages in comparisons with an unrealistic perception of reality presented by a peer, they are more likely to feel bad about their own reality. The report from the Pew Research Center (2018) mentioned above highlights this unusual conflict, where teen social media users report using the tool to feel a deeper connection with their friends, but simultaneously feel the pressure to post cautiously in an attempt to look good to others. The pressure to tailor content on social media or in sharing only similar experiences with assessments was commonly expressed by study participants as a way to fit in with their peer group. Several participants commented on sharing similar experiences with their peers, where in reality that was not the case (e.g. agreeing that an exam was 'easy' despite having the opposite perception of the exam difficulty level).

4.5.5 Study limitations

This study was situated within an interpretive paradigm, where the generalizability of findings beyond the context of study participants is not the intention of the research (Harding & Gantley, 1998). The use of purposive sampling is frequently used in qualitative research in order to capture information-rich cases of people who have experienced or are knowledgeable of the research area of interest and who are also willing to participate (Etikan, Musa, & Alkassim, 2016). Purposive sampling, however, is not without its flaws. The non-exclusion of outliers within the analysis can affect the

transferability of the findings to other populations with the same context (Barbour, 1999). However, including outliers “allows for such deviant cases to illuminate, by juxtaposition, those processes and relations that routinely come into play, thereby enabling the “exception to prove the rule.” (Barbour, 2001, p. 115). Anecdotes from unique cases were presented throughout the research findings, allowing a contrast to be made against the experiences of others within the same context.

A single person was responsible for coding the text. This may pose a limitation to the qualitative equivalent of reliability of the findings, since a single researcher may impose their subjectivity on the interpretation of findings. In coding audio transcript data, multiple coders are commonly used to alleviate this potential concern (Barbour, 2001). Potential themes uncovered from the interview and focus group transcripts were presented to the researcher’s advisory committee, where a discussion of the themes within the context of the research ensued. However, objective interpretation of the data was not the goal of this research. In an interpretive phenomenological analysis, the researcher’s interpretations are central to the process, where Donalek (2004) argues “research is not truly phenomenological unless the researcher's beliefs are incorporated into the data analysis” (p. 516). Instead, a focus on rigour through the iterative process undertaken in this research helps to assure the strength of the study design and appropriateness of methodology and methods chosen to address the research questions (Cypress, 2017).

Finally, the interim analyses were not sent back to participants to review; a process otherwise referred to as respondent validation. The primary purpose of respondent validation is being able further refine explanations. Respondent validation can be of value where researchers work with participants on a number of occasions (Barbour, 2001). In this case, students participated in a single focus group or interview and the goal of this study was not to extrapolate reasons why their transition proceeded in the way they described, rather its aim was to provide a narrative of the experience for these participants during their transition to university. Additionally, Atkinson (1997) suggests a prevailing culture privileging autobiographical accounts, where the authenticity of this type of data is treated differently. He argues “we will not produce good research on the

social world by stripping out the social, replacing it with the solitary voices or individualized versions of experience” (p. 343). Thus, in reconvening with study participants, it may be tempting to view their single interpretations as fact, potentially at the expense of the researcher’s own valuable interpretations.

4.6 Conclusion

This study sought to present the lived experiences of first- and second-year Health Science students’ transition to the University of Western Ontario. The process of transitioning is complex, context-dependent, and presents a time in which students face challenges and comparisons they work through independently. Supports, in the form of people, events, or resources, can help students navigate the new environment, through the transition. Accessing crucial support, however, was not a shared experience amongst study participants. In particular, the contrast of participants living in residence and off campus appears to situate the latter at a disadvantage. The findings from this research helps cast light on the perceived inequalities felt by students living off-campus, in addition to the impact of ‘sharing’ on the transition to university, specifically in drawing comparisons against fabricated realities. This research may help raise awareness of the highly complex period of time in which students are transitioning to university. It may also assist in the generation or refinement of transition programming at Western or similar institutions to reflect the ever-changing landscape of higher education. However, further research involving transition support specifically for off-campus students is warranted. Engaging this unique, highly diverse subset of the incoming undergraduate population is a pressing, but important task.

I would like to conclude by sharing one final anecdote from P7.I, as I believe she adequately addressed the essence of transitioning to university:

“I guess I just wasn't into the whole like, you know, like the superficial meeting people that kind of comes with o-week. Like, you're meeting all these people, some I don't even remember. Some of the people I had seen and even my friends from back home who are here- I feel like, even there was a disconnect because they were like, doing their own thing, experiencing this first week of university, first month of university and all the

changes that come with it. But because I wasn't really in the mood for that like, even then I just kind of had to shoulder it myself."

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Chapter 5

5 Conclusion

In the transition to university, students are confronted with a number of fundamental life changes. With the emphasis on independence, both in living arrangement (i.e. out of the family home) and in the academic environment, students make decisions that help shape their time spent in university and beyond into their adult life. This period of transition is complex, often the subject of inquiry by researchers in the area of higher education. This could also be said of transitions broadly where commonplace transitions, such as those made in and out of the workforce, signify a change in role. Accordingly, this thesis begins with an exploration of what being ‘in transition’ means. While some argue there is no one definition of ‘transition’ (Ecclestone, Biesta, & Hughes, 2010), many draw on work from life course research and role theory to highlight the changes made to an individual’s identity with experience gained and each decision made during the transition (Elder, Johnson, & Crosnoe, 2003; Hill-Joseph, 2018). An individual may approach a transition with previously held expectations of their new post-transition role, which may include an over- or under-estimation of preparation needed. What an individual experiences during this transition, whether or not their transition realities meet their expectations, may affect choices and behaviours during and beyond the transition (Gaspard, Willie, Wormington, & Hulleman, 2019).

For the transition to university specifically, students are balancing a new social and academic environment, while negotiating personal or emotional changes in the shift towards adulthood. The adjustment to self-directed learning, the potential acquisition of poor health behaviours, various psychosocial changes, holding unrealistic expectations, and adapting to the new environment are among the main challenges faced by students transitioning to post-secondary (Richardson, King, Garrett, & Wrench, 2012). While several types of support, including first-year seminars, orientation weeks, and mentorship programs seek to alleviate these challenges, there is currently little evidence on how to weave discipline-specific content within a preparatory program that seeks to develop the critical university skills of incoming students. In the first manuscript of this thesis, Challenges and supports in the transition to university: a framework for development of a

discipline-specific, pre-university online course, an effort to fill this existing gap in the literature on student transitions to higher education are presented. The potential issues facing new university students is presented, followed by common types of supports to alleviate these issues in encouraging a successful transition to post-secondary education is offered as a structural framework for the creation of a discipline-specific, pre-university online course, *Leg UP: An Introduction to Health Across the Lifespan*. In *Leg UP*, the application of university skills (e.g. discussion board etiquette) is reinforced within content that is inherently interesting to the incoming student, as it is in their chosen discipline, Health Sciences (e.g. creating a discussion board post about their perception of how ‘health’ is defined).

By situating skill development within interesting content, it is hypothesized in the second manuscript, Evaluation of a university transition course for its effectiveness in offering students a “Leg UP” to their first year that in the meaningful application of these skills during the transition to university, students who participate in *Leg UP* would experience a ‘better’ transition to university, as evidenced by their academic achievement and scores on an adjustment to university questionnaire. The findings from this quasi-experimental study supported this hypothesis, with students who participated in *Leg UP* achieving higher scores in their two first-year, first-term module courses than their peers who did not participate in *Leg UP*. Additionally, students who participated in *Leg UP* demonstrated higher scores on university adjustment variables, as measured by the Student Adaptation to College Questionnaire (SACQ, Baker & Siryk, 1984). Specifically, scores on the SACQ subscale Attachment to the Institution were significantly higher for *Leg UP* participants, suggesting *Leg UP* participants feel a stronger attachment to Western than their peers who did not participate in *Leg UP*. This data suggests, in part, that students who participated in *Leg UP* experienced a ‘better’ transition to university.

However, gaining the students’ perceptions of their unique transition experience grants a deeper understanding of the transition to university as faced by students in the context where *Leg UP* was offered. This led to the chief inquiry of the third manuscript, The lived experience of first- and second-year Health Science students’ transition to university: a phenomenological study, where the answer to the question, ‘what was it like

to transition to university?’ was asked of 13 first- and second-year students in the School of Health Studies at Western in several focus groups and individual interviews. The answer to this question was complex, with six themes generated from participants’ responses including: Uncertainty, Expectations (and adjusting expectations), Living Arrangement, Pressure, Independence and Identity, and Support. The uncertainty participants felt about their transition to university manifested in expectations of the academic and social life of university. These expectations were ultimately adjusted, either before the transition or after some experience at university. Adjusting these expectations was facilitated by support received, with types of support ranging from personal (e.g. parents) to those offered from the institution (e.g. Sophs). However, type of support recognized as useful in the transition differed based on living arrangement, with participants living in residence perceived to have exclusive resources to support the transition versus those living off-campus. Support during the transition was useful in decision making for adapting to the structure of university. Part of adapting to the new environment included grappling with pressures felt from a variety of sources, the source of pressure often described as coming from the constant comparison with peers. In dealing with this pressure and in making a series of choices during the transition to university, participants began to form their university identities.

5.1 A multi-perspective approach to research on the transition to post-secondary

The three manuscripts together in this thesis present the many perspectives of the transition to university. Considering the turbulent economic climate, the emphasis placed on higher education as a means to a stable and prosperous society has never been more prevalent (Cole, 2017). As a result, recent literature in the area of research in higher education has focused on the student experience, including topics such as active learning, which has led to the emerging discussion on student transitions to post-secondary (Blair, 2017). There have been a number of issues associated with the transition experienced by students, including those relating to the academic, social, and personal/emotional transition to post-secondary. As a result, many institutions have invested in transition programming based on this literature in an effort to encourage a healthy transition to

post-secondary (Dvořáková et al., 2017). The first manuscript presents the development of a pre-university course, *Leg UP*, dedicated to facilitate a successful transition to university. The development of the course was grounded in the literature on best practices for transition programming as well as online course development. The overall aim was to assist students in their adjustment to university, and was partially responsible for a successful transition, as evidenced by the evaluation of *Leg UP* in the second manuscript. This quantitative evaluation of *Leg UP*, while a notable contribution to the literature on the transition to university, only recounts part of the story of this cohort of students' transition. It is necessary to learn about the transition from those who have experienced it as well, as the student's voice is important for enhancing programming (Nikolai, Silva, & Walters, 2017). The students' perspective of the transition to university is also present in this thesis in the third manuscript, where participants reflect on their transition experiences. The third manuscript was not intended to be an evaluation of *Leg UP* by participants. Instead, *Leg UP* may have been discussed in the context of support potentially consulted in the transition to university. The third manuscript contextualizes the transition, which can allow for targeting transition programming at individual institutions or within programs. Results from this thesis as a whole will be shared with stakeholders at Western who have a vested interest in the student experience in an effort to improve the transition practices at Western.

5.2 Discipline-specific programming for academic preparedness

Part of the transition to university involves the adjustment of expectations, in particular, academic expectations. Academic expectations in the context of the transition can be characterized by the “perceptions, aspirations, and desires” (Diniz et al., 2018, p. 689-690) students have about the learning experiences they will have during their post-secondary education. The apparent gap between what students expect of university life and their reality in university can be distressing, potentially leading to poorer academic performance and withdrawal from the institution if not managed accordingly (Hassel & Ridout, 2018). Academic expectations were addressed in *Leg UP* by offering students a glimpse into their university course content while simultaneously encouraging the

development of important university skills. Encouraging university skill development (e.g. independent learning) during the transition should be discipline-specific (Kantanis, 2000), as was the case of *Leg UP*. As discussed in manuscript one, the *Leg UP* content mirrored topics covered in later module courses. By interacting with the content of *Leg UP*, participating students would have had prior experience with the subject matter before their module courses. There was also a University Toolkit topic dedicated to managing expectations, since having realistic expectations about university is often associated with higher academic performance in first-year courses (Nicholson, Putwain, Connors, & Hornby-Atkinson, 2013). The findings from manuscript two support the preparedness offered by *Leg UP* in suggesting those who participated in *Leg UP* achieved higher self-reported grades in their first-year, first-term module courses than their peers who did not participate in *Leg UP*. Part of achievement, particularly for Health Science module courses, may have been due to the prior exposure to course content. The interactive activities in *Leg UP* encouraged participants to recall content they learned in a series of steps including learning new content, being assessed, and receiving feedback. The repeated retrieval of content, including the need to retrieve it for *Leg UP* assessments and later on in course assessments, may have helped in memory retention (Roediger III & Butler, 2011). Participants in manuscript three echoed this concept, with some commenting on their recall of *Leg UP* content in their first-year courses.

5.3 The complex social adjustment to university

In the second manuscript, the social adjustment variable of the SACQ appeared to be the lowest adjustment variable measured across both experimental and control groups. The question remains what would be useful for students in their social adjustment to university. In a meta-analysis of social class and social integration of university students, Rubin (2012) concluded that students stemming from a lower socioeconomic class participated in fewer social activities (including both formal, such as clubs, and informal, such as parties) than middle-class students. As a result, their sense of belonging to the institution was lower and they also felt less integrated. While this study did not consider social class as a predictor of *Leg UP* participation, the notion of low participation in institutional activities correlating with a lower social adjustment to university is apparent

in the literature. The third manuscript highlights the multifaceted social adjustment to university, with participants often describing making friends as their main issue in transitioning to university. For these participants, the social adjustment to university involved not only making new friends, but navigating issues surrounding the constant comparison with peers. A recent trend in the exploration of adjustment to post-secondary education involves investigating the paradoxical effect of social media use on social adjustment. Yang and Robinson (2018) studied the effects Instagram (a popular social media app that focuses on photos and images) use on the social adjustment to university based on a student's social comparison orientation. There were two orientations of social comparison suggested: social comparison orientation of *ability* is "competition-based, focusing on comparison of achievement and performance", whereas social comparison orientation of *opinion* is "non-competitive, centering on identifying similarities and differences in thoughts, attitudes, values, and beliefs" (p. 49). Scoring high on either social comparison orientation correlated with higher Instagram use. Students exhibiting a strong social comparison orientation of ability scored lower on social adjustment variables. Alternatively, students who had a strong social comparison orientation of opinion scored higher on social adjustment variables.

5.4 Institutionalized incentives for encouraging university attachment

There were a number of incentives built into *Leg UP* participation, as discussed in manuscript one. Most notably, the introduction of the grade bonus appeared to be a valued incentive by students, where the completion rate increased sharply from approximately three percent of the invited population to approximately 34% of the invited population. The use of grade incentives for skill development is not new, in fact, many first-year seminars are credit-bearing (Hatch & Bohlig, 2016). Schuster, Hunt, and Haering (2017) discuss the Simulation Clinic Culture of Excellence in Dentistry (SUCCEED) incentive program designed to prepare dental students for their clinical competency exam before graduation by offering a two percent bonus grade incentive to encourage clinical skill development through increased repetition. Although measurement of the program's success, as measured by an increase in scores on the

clinical competency exam, produced mixed results, the authors suggest the effects of the program extend beyond the exam itself and may produce increased efficiency in patient care later on. In the evaluation of a process awarding bonus grades to students who furthered their writing skills by revising their written assignments based on feedback from the instructor, Garner and Shank (2018) note their incentives as effective for encouraging students to improve their writing. They are also careful to note that grade incentives should be enough to “incentivize the revision but not so much that it causes excessive grade inflation” (p. 363). Other instances of grade incentives include attendance or participation marks, with the rationale being that attendance in class is positively correlated with academic performance (Kassarnig et al., 2018). Broker, Milkman, and Raj (2014) confirm this correlation, also suggesting that bonus grades can offer additional motivation for students in simply perceiving a reward associated with attendance, even if that award is small: “this seems striking when you consider that the bonus points that were offered in this experiment were really inconsequential (most teachers round their grades at the margins anyway)” (p. 21). The third manuscript speaks to the grade incentive as being central to the decision to participate in *Leg UP*. However, participants also discuss the grade incentive as being offered by the School of Health Studies to facilitate the transition or encourage the success of students; they perceived their success as being important to the School because of the incentive. This may have contributed to the significant effect of *Leg UP* participation on the Attachment to the Institution subscale of the SACQ found in the second manuscript. The offering of *Leg UP*, in addition to the valuable incentives offered to students, may have contributed to students’ perception of feeling valued by the institution. The bonus grade incentive that was offered to students signaled to them the institution’s investment in their academic adjustment to university, or was discussed in the context of the program being less ‘cutthroat’ because these bonus grades were offered.

5.5 Future directions

This thesis offered a comprehensive look at the transition to university, both from a perspective of an institution that would offer a discipline-specific, online transition support based on evidence from the literature and from the student who recently

underwent the transition. While the studies contained within this thesis largely examined the transition within the first year and a half of post-secondary, it would be of value to evaluate the long-term impact of transition supports offered. There is no discrete endpoint of the transition to university, and when the student feels he or she has 'transitioned' to a university student is unclear. Many second-year participants in this study commented that they are still working through their transition, particularly out of first-year and into second-year. Further exploration into the conceptualization of the end of the transition by upper-year university students themselves is warranted. With this additional information, the transition to university can be further clarified and understood by researchers in the area of higher education. This research will help institutional stakeholders envision novel and innovative solutions to easing the transition for incoming students in years to come.

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Appendices

Appendix A: Western University Non-Medical Research Ethics Board (NMREB) Approval Notice (File no. 106519)



Research Ethics

Western University Health Sciences Research Ethics Board
NMREB Delegated Initial Approval Notice

Principal Investigator: Dr. Dan Belliveau
Department & Institution: Health Sciences/Health & Rehabilitation Sciences, Western University

NMREB File Number: 106519
Study Title: MOOCing a Difference: Facilitating Successful Transitions to University
Sponsor:

NMREB Initial Approval Date: June 01, 2015
NMREB Expiry Date: June 01, 2016

Documents Approved and/or Received for Information:

Document Name	Comments	Version Date
Revised Western University Protocol		2015/05/04
Other	Form 1 - Reference list	2015/05/04
Recruitment Items	Form 2 - Health professional telephone script for recruitment	2015/05/04
Letter of Information	Form 3 - LOI (Health professional)	2015/05/04
Other	Form 4 - General video release form	2015/05/04
Other	Form 5 - Question bank (health professional)	2015/05/04
Recruitment Items	Form 6 - Verbal recruitment script (client)	2015/05/04
Letter of Information	Form 7 - LOI (client)	2015/05/04
Letter of Information	Form 8 - LOI (content expert)	2015/05/04
Recruitment Items	Form 9 - Verbal recruitment script (students in lecture)	2015/05/04
Letter of Information	Form 10 - LOI (students on file)	2015/05/04
Other	Form 11 - Question bank (student on file)	2015/05/04
Other	Form 12 - MOOC: visual	2015/05/04
Recruitment Items	Form 13 - Letter (and email) to LEG UP participants	2015/05/04
Data Collection Form/Case Report Form	Form 15 - Introductory questionnaire	2015/05/04
Letter of Information & Consent	Form 14 - LOI (LEG UP participant)	2015/05/04
Data Collection Form/Case Report Form	Form 16 - SMAI.SI	2015/05/04
Data Collection Form/Case Report Form	Form 17 - Follow up survey	2015/05/04
Data Collection Form/Case Report Form	Form 18 - SACQ	2015/05/04
Recruitment Items	Form 20 - Verbal recruitment script (follow up survey)	2015/05/04
Letter of Information & Consent	Form 19 - LOI (follow up survey)	2015/05/04
Letter of Information & Consent	Form 22 - LOI & Consent (focus groups)	2015/05/04
Recruitment Items	Form 21 - Reminder email (follow up survey)	2015/05/04

The Western University Non-Medical Research Ethics Board (NMREB) has reviewed and approved the above named study, as of the NMREB Initial Approval Date noted above.

NMREB approval for this study remains valid until the NMREB Expiry Date noted above, conditional to timely submission and acceptance of NMREB Continuing Ethics Review.

The Western University NMREB operates in compliance with the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans (TCPS2), the Ontario Personal Health Information Protection Act (PHIPA, 2004), and the applicable laws and regulations of Ontario.

Members of the NMREB who are named as investigators in research studies do not participate in discussions related to, nor vote on such studies when they are presented to the REB.

The NMREB is registered with the U.S. Department of Health & Human Services under the IRB registration number IRB 0000094L.

Ethics Officer
[Redacted] delegated board member

Ethics Officer to Contact for Further Information

Erika Bushe ebushe@uwo.ca	Shazo Kelly [Redacted]	Mina Mekhal mmekhal@uwo.ca	Vikki Tran v.k.tran@uwo.ca
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This is an official document. Please retain the original in your files.

Appendix B Western University Non-Medical Research Ethics Board Continuing Ethics Approval Notice (File No. 106519)



Research Ethics

Western University Non-Medical Research Ethics Board NMREB Annual Continuing Ethics Approval Notice

Date: June 01, 2016
Principal Investigator: Dr. Dan Belliveau
Department & Institution: Health Sciences/Health & Rehabilitation Sciences, Western University

NMREB File Number: 106519
Study Title: MOOCing a Difference: Facilitating Successful Transitions to University

NMREB Renewal Due Date & NMREB Expiry Date:
 Renewal Due -2017/05/31
 Expiry Date -2017/06/01

The Western University Non-Medical Research Ethics Board (NMREB) has reviewed the Continuing Ethics Review (CER) form and is re-issuing approval for the above noted study.

The Western University NMREB operates in compliance with the Tri-Council Policy Statement Ethical Conduct for Research Involving Humans (TCPS2), Part 4 of the Natural Health Product Regulations, the Ontario Freedom of Information and Protection of Privacy Act (FIPPA, 1990), the Ontario Personal Health Information Protection Act (PHIPA, 2004), and the applicable laws and regulations of Ontario.

Members of the NMREB who are named as Investigators in research studies do not participate in discussions related to, nor vote on such studies when they are presented to the REB.

The NMREB is registered with the U.S. Department of Health & Human Services under the IRB registration number IRB 00000941.

 Ethics Officer, on behalf of Dr. Khey Timson, NMREB Chair

Ethics Officer: Enka Besile _____ Katelyn Horns _____ Nicole Kaniki _____ Grace Kelly ✓ _____ Vikki Tran _____ Karen Gopaul _____

**Appendix C Western University Non-Medical Research Ethics Board (NMREB)
Approval Notice (File no. 110886)**



Date: 13 September 2018

To: Dr. Dan Belliveau

Project ID: 110886

Study Title: Facilitating a Successful Transition to Western through Log Up

Application Type: NMREB Initial Application

Review Type: Delegated

Full Board Reporting Date: 05/Oct/2018

Date Approval Issued: 13/Sep/2018 09:18

REB Approval Expiry Date: 13/Sep/2019

Dear Dr. Dan Belliveau:

The Western University Non-Medical Research Ethics Board (NMREB) has reviewed and approved the WREM application form for the above mentioned study, as of the date noted above. NMREB approval for this study remains valid until the expiry date noted above, conditional to timely submission and acceptance of NMREB Continuing Ethics Review.

This research study is to be conducted by the investigator noted above. All other required institutional approvals must also be obtained prior to the conduct of the study.

Documents Approved:

Document Name	Document Type	Document Date	Document Version
Email Script_clean	Recruitment Materials	24/Jul/2018	2
Focus Group General Questions/Probes	Focus Group(s) Guide	29/Nov/2017	1
Interview Guide_clean	Interview Guide	20/Feb/2018	2
LOI & Consent (focus group:interviews)_clean	Written Consent/Assent	12/Sep/2018	4
LOI transition survey_clean	Implied Consent/Assent	12/Sep/2018	4
Transition Survey_clean	Online Survey	24/Jul/2018	2
Verbal Script_clean	Oral Script	12/Sep/2018	3

No deviations from, or changes to the protocol should be initiated without prior written approval from the NMREB, except when necessary to eliminate immediate hazard(s) to study participants or when the change(s) involves only administrative or logistical aspects of the trial.

The Western University NMREB operates in compliance with the Tri-Council Policy Statement Ethical Conduct for Research Involving Humans (TCPS2), the Ontario Personal Health Information Protection Act (PHIPA, 2004), and the applicable laws and regulations of Ontario. Members of the NMREB who are named as Investigators in research studies do not participate in discussions related to, nor vote on such studies when they are presented to the REB. The NMREB is registered with the U.S. Department of Health & Human Services under the IRB registration number IRB 00000941.

Please do not hesitate to contact us if you have any questions.

Sincerely,

Kathryn Harris, Research Ethics Officer on behalf of Dr. Randal Graham, NMREB Chair

Note: This correspondence includes an electronic signature (validation and approval via an online system that is compliant with all regulations).

Appendix D Email recruitment script for *Leg UP* participation



April 25 2015

[Insert student's mailing information]

Hello [insert student's name],

Congratulations on accepting your offer to Western University's School of Health Studies!

The next step in your university career begins with *LEG UP: An Introduction to Health Across the Lifespan* – Western's first pre-university online course. As an entrant to the School of Health Studies, you are invited to join *LEG UP* and begin your successful start to university.

LEG UP is a six-week online course designed to give you a glimpse into the topics covered throughout your undergraduate Health Science degree. This course is free of charge to you and if all mandatory requirements are completed, **you will be entered into a draw to win one of four \$250 gift cards to the Book Store at Western!** Faculty members, current, and past students in the Faculty of Health Science have curated the content for this course such that it mimics the content you will see in your university coursework later on.

Here is what you can expect over the six weeks of *LEG UP*:

Week 1: Introduction to Health (June 8, 2015)

This week will explore the social and personal determinants of health and why they are so important for any topic – health related or seemingly otherwise. You will also get the chance to critically evaluate different definitions of health and discover why fluctuations in definitions are relevant.

Week 2: Childhood and Adolescent Health (June 15, 2015)

In this week you will be contributing to the dialogue on various "hot topics" in childhood and adolescent health, such as the immunization debate and the childhood obesity epidemic.

Week 3: University Student Health (June 29, 2015) * week break for high school exams

This week will explore a topic that is going to be useful in its application to your day-to-day life as a university student. You will get the chance to investigate some issues related to post-secondary student health as well as learn some healthy student habits that you can soon practice in your university years.

Week 4: Adult Health and Health Occupations (July 6, 2015)

This week will have your answers to the question: what can I do with my Health Science degree? You will get to explore various health occupations as well as discover some current "hot topics" on the Canadian health care system.

Week 5: Late Adult Health (July 13, 2015)

In the second last week you will have the chance to look at aging through the perspective of both an aging adult and a health care worker. Concepts like healthy aging will be covered, and some common myths about aging will also be debunked.

Week 6: Future of Health Care (July 20, 2015)

The final week of *LEG UP* will take a glimpse into the future of our health care system. Electronic medical records, health apps, and improved accessibility to health care are just a couple topics that will be covered.

In each week of the course, you will also be able to practice skills related to university life in the [University Toolkit](#). For example, you will gain experience writing at the university level and get meaningful feedback that you can later apply to writing assignments in your courses!

There is also a separate section dedicated to Health Science-specific information in the [Health Studies Dashboard](#), such as the differences between degree types (major or specialization?) and grade expectations in your first year.

Steps for accessing LEG UP:

- 1) Visit [INSERT DIRECT LINK TO MODULE HERE]
- 2) Enter your unique Western user ID (e.g. jsmit56) and password (e.g. N!cv9GHY)
- 3) Read the Letter of Information
- 4) Begin the module!

Note: the site will become active on June 8, 2015

Questions? Contact the LEG UP team at [INSERT LEG UP EMAIL HERE]

Appendix E Verbal recruitment script for participation in the transition to university survey

Verbal Script

Hello, my name is Cortney Hanna and I am from the Faculty of Health and Rehabilitation Sciences. I am here today to talk to you about a research study about first year students' experiences with their transition to university, which is being done under the supervision of Dr. Dan Belliveau.

I am currently recruiting participants who are in the faculty of Health Sciences, in their second year of study, and who would like to participate in this study. Briefly, the study involves completing an online survey that aims to measure your transition to university, including factors related to academic adjustment, personal–emotional adjustment, social adjustment, and attachment (to the institution). Participation in this survey will not affect your grade in any way. This survey will take approximately 30-40 minutes to complete and all responses will remain anonymous. In addition, you will be compensated with a \$5 e-gift card to Starbucks for your participation in this survey. The email you provide for the e-gift card will not be linked to your survey responses.

At the end of the survey, you will be asked if you wish you participate in a focus group or individual interview. If you want to participate in a focus group or individual interview, please provide your email and a member of the research team will be in contact with you to arrange a time. Please note that the email you provide is not linked to your survey responses. You will also be compensated with a \$10 gift card to hospitality services if you choose to participate in a focus group or interview.

If you are interested in participating, you can access the survey at this link [DISPLAY URL ON SCREEN]. This link will also appear on your course's OWL site by later today.

If you have any questions please contact me at [REDACTED]

Appendix F Transition to university survey Letter of Information



Project Title: Facilitating a Successful Transition to Western through Leg Up

Principal Investigator:

Daniel Belliveau, PhD
Associate Professor, School of Health Studies
Western University

Co-Investigator:

Cortney Hanna, MSc
Health and Rehabilitation Sciences
Western University

Letter of Information – Transition to University Survey

1. Invitation to Participate

You are being invited to participate in this research study that seeks to gain a better understanding of your transition to university. The awareness of factors relating to a successful transition to university gained from this research can help inform the transition practices in place at Western University. You have been recruited for this study because you are a second year undergraduate student at Western University within the School of Health Studies and may have previously accessed the Leg Up program, the transition to university course, offered by the School of Health Studies.

2. Purpose of the Letter

The purpose of this letter is to provide you with information required for you to make an informed decision regarding participation in this research.

3. Purpose of this Study

The purpose of this study is to assess whether a pre-university course, Leg Up, is successful in helping students with their transition to post-secondary education. The objective of this project is to collect relevant data on participating students' adjustment and learning strategies to establish the effectiveness of *LEG UP: An Introduction to Health Across the Lifespan* in facilitating the transition to university. Your responses on this survey, including your reported achieved grades, will help us evaluate the usefulness of the Leg Up program.

4. Inclusion Criteria

Individuals who are in their second year of undergraduate studies within the School of Health Studies are eligible to participate in this study.

5. Exclusion Criteria

Individuals who are neither in their second year of undergraduate studies nor within the School of Health Studies are ineligible to participate in this study.

6. Study Procedures

If you agree to participate in this study, you will be asked to complete a survey assessing your adjustment to university. Leg Up participants' (i.e. those who respond "Yes" to the question "Did you take part in and/or complete LEG UP: An Introduction to Health Across the Lifespan (the pre-Health Science online course that ran throughout the summer of 2017)") survey responses will be compared to non-Leg Up participants' (i.e. those who respond "No" to the same question as above) responses. At the end of this survey, you will be asked if you wish to participate in a focus group or individual interview. You are still eligible to participate in this study if you did not participate in Leg Up.

7. Possible Risks and Harms



The possible risks and harms to you through participation in this study include the potential development of a self-awareness of poor learning strategies and/or behaviours, which may contribute to feelings of anxiety.

8. Possible Benefits

The results from this project will be used to inform post-secondary institutions on practices that could be adopted to improve the first-year transition to university experience

9. Compensation

You will be compensated with a \$5 Starbucks e-gift card. You must provide your Western email at the end of the survey to receive your gift card.

10. Voluntary Participation

Participation in this study is voluntary. You may refuse to participate or withdraw from the study at any time with no effect on your future academic status. To withdraw from the study, simply exit the browser. Due to the anonymity of the data collection process, requests for withdrawal of data already collected cannot be granted. You do not waive any legal right by consenting to this study.

11. Confidentiality

All data collected will remain confidential and accessible only to the investigators of this study. Your survey responses will be collected through a secure online survey platform called Qualtrics. Qualtrics uses encryption technology and restricted access authorizations to protect all data collected. In addition, Western's Qualtrics server is in Ireland, where privacy standards are maintained under the European Union safe harbour framework. If the results are published, your name will not be used. All data retrieved will be stored on the co-investigator's laptop within a 256-bit encrypted disk image temporarily, after which the data will be securely stored (under encryption and password protection) on institutional servers. The email list created for the purpose of contacting Starbucks e-gift card recipients will be permanently deleted once the e-gift cards have been claimed. All additional data will be kept for seven years. Representatives of The University of Western Ontario Non-Medical Research Ethics Board may contact you or require access to your study-related records to monitor the conduct of the research.

12. Contacts for Further Information

If you require any further information regarding this research project or your participation in the study you may contact Dan Belliveau [REDACTED] or Cortney Hanna [REDACTED]. If you have any questions about your rights as a research participant or the conduct of this study, you may contact The Office of Human Research Ethics [REDACTED].

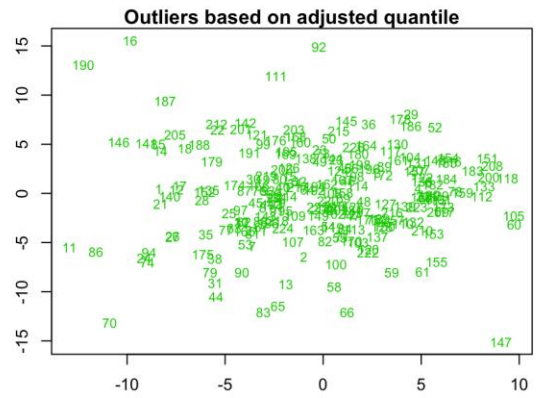
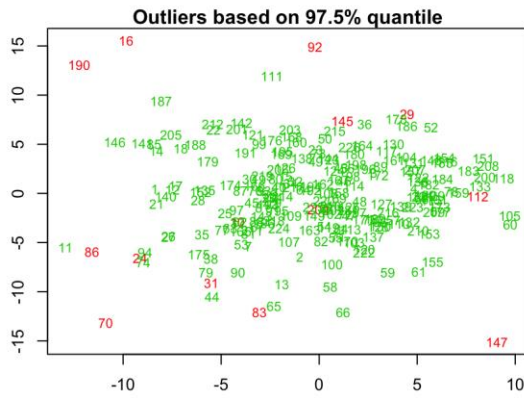
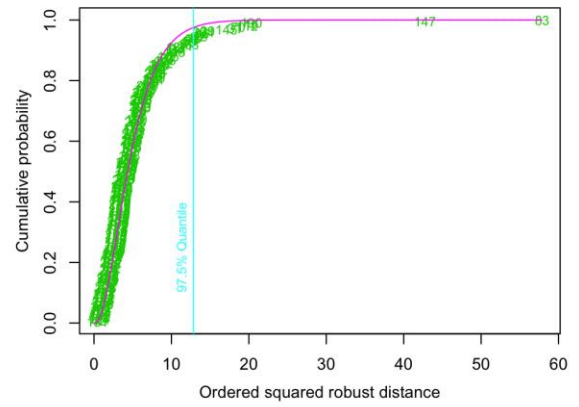
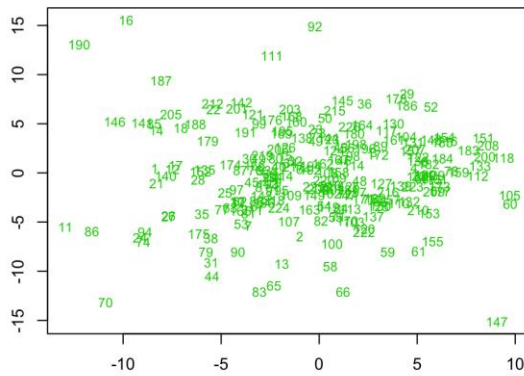
13. Publication

If the results of the study are published, your name will not be used. If you would like to receive a copy of any potential study results, please contact Cortney Hanna [REDACTED].

14. Consent

By clicking "Yes" below, you agree to participate in the research study and will be taken to the transition to university survey. A "Yes" response is required to access the survey. If you click "No", you will be redirected to the end of the survey.

Appendix G The ordered squared robust Mahalanobis distances among the participants (no outliers detected)



Appendix H MANOVA summary table (multivariate effect of *Leg UP* on academic achievement)

	<i>df</i>	<i>Pillai</i>	<i>approx. F</i>	<i>num Df</i>	<i>den Df</i>	<i>Pr (>F)</i>
legup	1	0.048598	5.0058	2	196	0.00758**
residuals	197					

Note: Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Appendix I Univariate effects of *Leg UP* on Health Science and Biology averages

Response <i>hs_avg</i> :					
	<i>df</i>	<i>Sum Sq</i>	<i>Mean Sq</i>	<i>F value</i>	<i>Pr (>F)</i>
legup	1	495.5	495.51	9.6584	0.002164**
Residuals	197	10106.9	51.30		
Response <i>bio_avg</i> :					
	<i>df</i>	<i>Sum Sq</i>	<i>Mean Sq</i>	<i>F value</i>	<i>Pr (>F)</i>
legup	1	323.6	323.59	5.0513	0.02572*
Residuals	197	12620.1	64.06		

Note: Signif. codes: 0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Appendix J MANOVA summary table (multivariate effect of *Leg UP* on university adjustment)

	<i>df</i>	<i>Pillai</i>	<i>approx. F</i>	<i>num Df</i>	<i>den Df</i>	<i>Pr (>F)</i>
legup	1	0.058974	3.0395	4	194	0.01848*
residuals	197					

Note: Signif. codes: 0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

**Appendix K Univariate effects of *Leg UP* on university adjustment variables
(academic adjustment, social adjustment, personal/emotional adjustment, and
attachment to the institution)**

Response academic:					
	<i>df</i>	<i>Sum Sq</i>	<i>Mean Sq</i>	<i>F value</i>	<i>Pr (>F)</i>
legup	1	5.4	5.3501	0.3016	0.5835
Residuals	197	3494.7	17.7395		
Response social:					
	<i>df</i>	<i>Sum Sq</i>	<i>Mean Sq</i>	<i>F value</i>	<i>Pr (>F)</i>
legup	1	0.01	0.0106	0.012	0.9724
Residuals	197	1738.21	8.8234		
Response person:					
	<i>df</i>	<i>Sum Sq</i>	<i>Mean Sq</i>	<i>F value</i>	<i>Pr (>F)</i>
legup	1	0.15	0.1466	0.0125	0.9112
Residuals	197	2317.34	11.7632		
Response attach:					
	<i>df</i>	<i>Sum Sq</i>	<i>Mean Sq</i>	<i>F value</i>	<i>Pr (>F)</i>
legup	1	144.8	144.824	8.8827	0.003241**
Residuals	197	3211.9	16.304		

Note: Signif. codes: 0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Appendix L Focus group and interview Letter of Information and Consent form



Project Title: Facilitating a Successful Transition to Western through Leg Up

Principal Investigator:

Daniel Belliveau, PhD
Associate Professor, School of Health Studies
Western University

Co-Investigator:

Cortney Hanna, MSc
Health and Rehabilitation Sciences
Western University

Letter of Information – Focus Groups and Interviews

1. Invitation to Participate

You are being invited to participate in this research study that seeks to gain an in-depth perspective on the experiences of first year students' transition to university. You have been recruited for this study because you are in your first year of university within the faculty of Health Sciences and you have expressed interest in taking part of a focus group or interview.

2. Purpose of the Letter

The purpose of this letter is to provide you with information required for you to make an informed decision regarding participation in this research.

3. Purpose of this Study

The purpose of this study is to assess whether a pre-university course, Leg Up, is successful in helping students with their transition to post-secondary education. The objective of this project is to collect relevant data on the participating students' adjustment and learning strategies for analysis to establish the effectiveness of Leg Up in facilitating the transition to university.

4. Inclusion Criteria

Individuals who are enrolled in the faculty of Health Sciences, in their first year of study, and who have expressed interest in participating in a focus group or interview are eligible to participate in this study.

5. Exclusion Criteria

Individuals will be excluded from this study if they have not expressed interest in participating in a focus group or interview and are neither in the faculty of Health Sciences nor in their first year of study.

6. Study Procedures

If you agree to participate in a focus group, you will be asked to participate in a focus group of four to six people. We anticipate having three to five focus group sessions, making the total number of participants approximately 30. The focus of this discussion is to explore and discuss the experience in transitioning to university with similar age mates. Focus group sessions and individual interviews will be audio recorded, but you may still participate if you do not consent to be audio recorded. It is anticipated that the entire task will take approximately 60 minutes to complete, however given the unstructured nature of a focus group, focus group sessions may take longer than 60 minutes.

7. Possible Risks and Harms

The possible risks and harms to you include a potential gain in self-awareness of factors that may be impacting your studies may contribute to feelings of anxiety or being overwhelmed with your studies. Should you wish to speak to someone about any distress you are experiencing, you can contact

Student Health Services at [REDACTED] (urgent concerns) or the Student Development Centre at [REDACTED]. The focus group session will take approximately 60 minutes, which is a relatively large time commitment for some students.

8. Possible Benefits

Through participation in a focus group discussion or interview, you may become more self-aware of factors that may be impacting your studies. This awareness may lead you to access resources available on campus. In addition, you may potentially benefit in knowing you are contributing to improving the transition experience for future first year students. The results from the focus group discussions and interviews will better inform institutions on practices that could be adopted to improve the first year transition to university experience.

9. Compensation

You will be compensated with one \$10 gift card to hospitality services for your participation in this study.

10. Voluntary Participation

Participation in this study is voluntary. You may refuse to participate, refuse to answer any questions or withdraw from the study with no effect on your future academic status. You may request withdrawal of the data already collected if the audio recordings have not yet been transcribed. In which case, your audio excerpts or interview will not be used. Requests for withdrawals from the study from interview participants can also be granted after the audio has been transcribed. Requests for withdrawals from the study from focus group participants may not be granted after the audio has been transcribed (and therefore anonymized). It may not be possible to identify your unique contributions to the focus group. You do not waive any legal right by consenting to this study.

11. Confidentiality

Your name will not be recorded, and any potential identifying information will be extracted from the audio transcript. Your name will be replaced with a study number (e.g. P1, P2, P3) and the list containing your name and linked study number will be stored on the co-investigator's laptop within a 256-bit encrypted disk image temporarily, after which the data will be securely stored (under encryption and password protection) on institutional servers. If the results are published, your name will not be used. The grouped nature of this research means that while the researchers will protect the confidentiality of any information given by the participants, we cannot guarantee that other participants in this group will protect this information; therefore, it will not be strictly confidential. To maintain confidentiality as much as possible, I would ask you to refrain from discussing anything that you hear today outside of the group. All audio data will be transcribed immediately following the focus group session (within 24 hours), after which it will be permanently deleted. Transcriptions will not include any participant personal identifiers and the transcriptions will be stored on the co-investigator's laptop within a 256-bit encrypted disk image temporarily, after which the data will be securely stored (under encryption and password protection) on institutional servers. Your consent form will be kept in a locked cabinet in a locked institutional office for seven years. After this time, all consent forms will be shredded. All electronic data will be kept for seven years. Representatives of The University of Western Ontario Non-Medical Research Ethics Board may contact you or require access to your study-related records to monitor the conduct of the research.

12. Contacts for Further Information

If you require any further information regarding this research project or your participation in the study you may contact Dan Belliveau [REDACTED] or Cortney Hanna [REDACTED]. If you have any questions about your rights as a research participant or the conduct of this study, you may contact The Office of Human Research Ethics [REDACTED]
[REDACTED]

13. Publication

If the results of the study are published, your name will not be used. If you would like to receive a copy of any potential study results, please contact Cortney Hanna [REDACTED].

Consent Form – Focus Groups**Project Title:** Facilitating a Successful Transitions to University through Leg Up**Principal Investigator:**Daniel Belliveau, PhD
*Associate Professor, School of Health Studies
Western University***Co-Investigator:**Cortney Hanna, MSc
*Health and Rehabilitation Sciences
Western University*

I have read the Letter of Information, have had the nature of the study explained to me and I agree to participate. All questions have been answered to my satisfaction.

Participant's Name (please print): _____

Participant's Signature: _____

Date: _____

I consent for the use of audio recording as indicated in the Letter of Information. I have been informed that I may still participate if I choose not to be audio recorded.

Initial here: _____

I will do my part in maintaining the confidentiality of my peers by refraining from discussing anything I hear today outside of the group.

Initial here: _____

My signature means that I have explained the study to the participant named above. I have answered all questions.

Person Obtaining Informed Consent (please print): _____

Signature: _____

Date: _____

Consent Form – Interviews

Project Title: Facilitating a Successful Transitions to University through Leg Up

Principal Investigator:

Daniel Belliveau, PhD
Associate Professor, School of Health Studies
Western University

Co-Investigator:

Cortney Hanna, MSc
Health and Rehabilitation Sciences
Western University

I have read the Letter of Information, have had the nature of the study explained to me and I agree to participate. All questions have been answered to my satisfaction.

Participant's Name (please print): _____

Participant's Signature: _____

Date: _____

I consent for the use of audio recording as indicated in the Letter of Information. I have been informed that I may still participate if I choose not to be audio recorded.

Initial here: _____

My signature means that I have explained the study to the participant named above. I have answered all questions.

Person Obtaining Informed Consent (please print): _____

Signature: _____

Date: _____

Appendix M Interview/focus group guide

Introduction to interview

- Introduce yourself
- The interview we are having today is part of my PhD studies.
- I am interested in the transition experiences of undergraduate students and their opinions on the transition support services and information that Western provides. After completing this interview, I hope to use the information to update Leg Up (the pre-university online course) to better serve the needs of incoming health science students.

I know that you have read the letter of information but I want to address a few important issues:

1. Confidentiality. Please ensure that anything we discuss stays in the room. As stated in the letter of information this session audio recorded but only I will have access to the recording and the transcription of the recording. I will be transcribing the recording within 72 hours of this session, after which I will be deleting the audio file. Your name will not be transcribed with the recording.
2. Sharing. To stay within the timeframe of finishing the interview in 60 minutes, I may ask you to expand or hold certain comments. Remember there are no right or wrong answers so please feel free to share, relax and enjoy the session.

Before we begin I want to let you know that snacks are available and you are free to get something to eat and/or drink before, during, and after the session. There are also washrooms down the hall if you need to use the washroom.

Do you have any questions before we begin? If there are no other questions we can begin

[Begin recording]

Initial discussion

Today, we are going to be talking about your experiences of transitioning from secondary education to university, we will also discuss your opinions about the transition support and information provided by the university or others. I know sometimes it is difficult to express yourself to new people so I will begin by telling you about my transition experience to Western. [SHARE PERSONAL STORY]

General questions/probes to stimulate discussion

- What was the transition to university like for you?
- Were you scared, excited or both? (why?)
- What were your expectations of university? What did you hear about Western before coming?
- What did you find most challenging or stressful during the first few weeks and throughout your first term? (residence issues, roommate problems, class schedule, work load, making friends, loneliness, etc, time management, laundry, grocery shopping, is this the first time you were doing some of these activities for yourself?)
- What did you find to be most helpful in helping you adjust to university life?
- What methods did you use manage stress, did they work well for you?
- Looking back now what skills do you think are necessary for all students coming to university to lessen stress and transition to university in a healthy manner?
- Did you have these skills when you came?
 - Tell me about orientation (summer academic vs September)
- Did you find the information and activities to be useful? (Why/why not?)
- Did you ever use any of the information when you had trouble?
- What types of information were most valuable to you as a new student?
- Did you think that the orientation week activities helped you adjust to the university? If so, in what specific areas?

- If not, what needs to be changed?
- If you had to design a transition to university course, what topics and activities would you include and what you leave out that based on your transition information and activities?
- What types of information should be included in a pre-university course?
- Did you experience any health problems during the transition to university (physical, emotional, stress etc.)
- Did you attribute any of these problems to parental pressure, academic pressure, pressure you placed on yourself to do well etc.?
- How did you cope with these problems?
 - If you experienced health problems, who did you turn to for help first (family, friends, roommate, profs, student services
 - How do you incorporate self-care and health into your daily life?
- What are your primary health concerns?
- Do you find it easy to access the health care services and information you need on campus?
- Have you ever used the health services on campus (counselling, physical health etc)
 - Did you find them to be helpful?
- Did you receive support for your transition for from sources other than Western (peers, parents, guidance counsellor)? What type of information or support did you receive? Was it helpful?

Session summary and debrief

- Based on the notes I have taken throughout the interview I would like to follow up on....
- Do you think we have missed any other important things that we need to think about or things when helping students transition to university?
- Before you leave I want to ask you how you're feeling. The Research Ethics board at Western requires that we ensure that participants do not leave feeling distressed and without proper information about where you can seek help. If you are experiencing any feelings of distress now that this session is over, please feel free to let me know before you leave. [PROVIDE PAMPHLETS REGARDING SUPPORT SERVICES AT WESTERN]

Appendix N Excerpt from codebook used to define codes

Code Path	Description	What this code includes	What this code does not include
Uncertainty / Feelings about the transition	What participants expressed feeling about the transition to university.	Statements on feelings about the transition before starting university.	Statements on current feelings towards university; contrasted feelings.
Uncertainty / Feelings of fear and nervousness / Outside sources	What participants heard about the transition to university that contributed to their feelings of fear and nervousness.	Hearsay from peers, family, upper year students; sources on social media.	Information from outside sources that did not explicitly contribute to uncertainty.
Uncertainty / Academic uncertainty	The uncertainties held by participants towards the changes to the academic environment	Changing academic demands including structure, accessing resources, difficulty, workload.	Statements on academic demands meeting expectations.
Uncertainty / Academic uncertainty / Expectations of university academics	Participants' expectations of university academics that contributed to their academic uncertainties.	Expectations of changes to difficulty, workload, class size, grades, and personalization.	Statements on academic demands meeting expectations; statements on adjusting expectations.
Uncertainty / Social uncertainty	The uncertainties held by participants towards the changes to the social environment.	Statements on uncertainty in roommate selection and uncertainty of making new friends.	Statements on established social connections.
Uncertainty / Social uncertainty / Expectations of university social atmosphere	Participants' expectations of university social atmosphere that contributed to their social uncertainties.	Expectations of changes to number of friends and changes to closeness of friends	Statements on established social connections.

Curriculum Vitae

Name:	Cortney Hanna-Benson
Post-secondary Education and Degrees:	<p>The University of Western Ontario London, Ontario, Canada 2014-2019 Ph.D.</p> <p>The University of Western Ontario London, Ontario, Canada 2012-2014 M.Sc.</p> <p>The University of Western Ontario London, Ontario, Canada 2008-2012 B.HSc.</p>
Honours and Awards:	<p>Province of Ontario Graduate Scholarship 2018</p> <p>Faculty of Health Science Tri-Council Scholarship Incentive Program 2016</p> <p>Graduate Scholar Award (E-Learning and Innovative Pedagogies Conference) 2015</p> <p>Graduate Student Teaching Assistant Award Nomination 2014</p> <p>Dean's Honour List 2012</p> <p>Western Scholarship of Distinction 2008</p>
Related Work Experience	<p>Professor Fanshawe College 2018, 2017, 2016</p> <p>Lecturer The University of Western Ontario 2018, 2016-2017</p>

Project Manager, *Leg UP* online modules
The University of Western Ontario
2017-2018

Research Associate, Centre for Teaching and Learning
The University of Western Ontario
2017

Teaching Assistant
The University of Western Ontario
2017, 2016, 2014, 2013

Instructional Designer, Test construction online modules
The University of Western Ontario
2015

Publications:

Hanna, C., Johnson, A. M., & Belliveau, D. J. (2015). "Fostering Student Motivation through Competition: How Competing in Online Tournaments in Teams Affects the Performance Related Outcomes of its Participants." *Ubiquitous Learning: An International Journal*, 7(3) p.19-40.

Selected Oral Presentations:

Hanna, C. & Belliveau, D. J. (October 2018). "Giving Students a "Leg Up" for a Successful First Year." National Conference on Students in Transition. Indianapolis, Indiana.

Hanna, C. & Belliveau, D. J. (October 2018). "Giving Students a "Leg Up" for a Successful First Year." National Academic Advising Association (NACADA) Annual Conference. Phoenix, Arizona.

Hanna, C. & Belliveau, D. J. (June 2016). "Succeeding Before you Start: Giving Students a "Leg Up" to University." Society for Teaching and Learning in Higher Education (STLHE) Annual Conference. London, ON.

Johnson, A., Hanna, C., Smyth, R., & Whitehead, J. (June 2016). "Leveraging Local and Online Software Resources to Create Engaging Learning Modules: A Case Study from the Ontario Online Initiative." STLHE Annual Conference. London, ON.

Hanna, C. & Belliveau, D. J. (November 2015). "Fostering Student Motivation through Competition: How Competing in Online Tournaments in Teams Affects the Performance Related Outcomes of its Participants." E-learning and Innovative Pedagogies Annual Conference. Santa Cruz, CA.

Hanna, C. & Belliveau, D. J (May 2015). "Improving Classroom Engagement using Online Competitive Tournaments." The Teaching Professor Conference. Atlanta, GA.