An Ecological Perspective of Chinese International Students' Experiences of Social Network Development in a Canadian University

by

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Abstract

This study explores the experiences of Chinese international doctoral students as they navigate the development of social support networks within a Canadian university, framed through an Ecological Perspective. The research involved six graduate students from China who participated in this qualitative case study. Data was collected through semi-structured interviews. The findings reveal that the surrounding environment was an important factor in the formation and evolution of the participants' social networks, particularly during the initial stages of their academic journey. The study highlights the critical role of the university's environment in either facilitating or hindering the establishment of these networks. Moreover, the research underscores the necessity for the university to bolster its support structures to more effectively address the diverse needs of its international student population. This enhancement is essential not only for academic success but also for the overall well-being of the students. The results suggest that social connection, as a fundamental human need, is vital for the mental health and quality of life of students, both in the immediate and long-term contexts. The importance of socializing extends beyond personal well-being, impacting academic performance and integration into the university community. Therefore, fostering robust social support networks is crucial for international doctoral students as they pursue their personal and academic goals.

Preface

This thesis is an original work by Jing Cui. The research project, of which this thesis is a part, received research ethics approval from the University of Alberta Research Ethics Board, Project Name “An Ecological Perspective of Chinese International Students’ Experience of Intercultural Relationship Building in a Canadian University”, No. Pro00096104, approved on November 28, 2019.

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Chapter One: Introduction

This study explores Chinese international students' experiences of finding social supports in a Canadian university. In this chapter, I share my own personal journey as an international student from China and what motivated me to pursue this research. I also examine some of the challenges and opportunities stemming from international education and clarify the aim and scope of the study. I then present the research questions that guide this inquiry and explain the significance and contribution of the study to the academic field. Finally, I explain key concepts that will be used in the study.

My Personal Journey

In the year 2012, I made an important decision in my life. I decided to pursue doctoral studies in the Department of Secondary Education after finishing my 2-year master's program there. I was cheerful and full of hope, expectation and ambition for my future studies and life in Canada. I believed that I had achieved and built up a foundation upon which I would achieve even more in the near future.

Nevertheless, things did not go as well as I had imagined. Instead of a sense of accomplishment and success, I indulged in my disappointment, frustration, and confusion only 1 year into my doctoral program. Constantly examining the status quo of my life was driving me to depression: Most of my friends were Chinese graduate students; all of my close friends were Chinese; I lived with a Chinese roommate; I barely spoke English except in classes. Even for entertainment, only one-third of my activities were in English. I felt my life in Canada was a failure to some extent because I did not have a "real" friend who spoke English to me. I asked myself how I could improve my English and gain more intercultural experience. Moreover, I

doubted the value of my overseas experience and the decisions that had resulted in sacrificing so much of my life in China.

Therefore, I started to analyze my life and my social activities and tried to figure out a solution. The first conclusion I drew was that I should leave my comfort zone and try to expand my social network and participate in more social activities. For a while, I spent a lot of time involved in various activities organized by the university. However, I found that if I attended activities with a friend, it did not accomplish my goal, since we spoke to each other in Chinese instead of talking with others. If I went by myself, I felt uncomfortable in a place with total strangers. I also found that few activities or events provided enough communication opportunities. Even when there were opportunities to talk with others, it seemed very unlikely that we would become friends and keep in touch after the event. As a result, I found that I made very few new friends by participating in these activities and only ended up being exhausted.

I determined that I should try to create more opportunities for learning and practising English beyond a classroom setting. In addition to participating in activities as much as possible, I also tried to involve more English in my recreational activities, such as by reading local English newspapers, watching English TV shows, listening to the radio, etc. I also participated in a Toastmasters meeting once but never returned because many participants there were Chinese.

After several months of engaging in these sorts of activities, I did not feel that I had become happier. Instead, I felt that I was “snobbish”, and my depression gradually turned to despair because I could not find a way out. Then I realized I should seek help from others and started to talk about my concerns and worries with some friends, especially Chinese graduate students, in the hope that I could find answers or insights from their experiences. I also wanted to know whether it was just me or whether other students had similar concerns. Was I an alarmist?

The discussions and conversations I had with friends were very helpful and inspiring. Although I did not find a panacea for my problems or a perfect model for my social life, their stories, experiences, and thoughts helped me realize the complexity, diversity, and importance of the questions and the possible answers. After that point, I decided to focus my dissertation on the area of Chinese international students' social network building and their experiences of relationship building in a Canadian university.

Initially, I intended to focus on international students themselves and investigate the reasons behind the phenomenon of many Chinese international students socializing with other Chinese students rather than mingling with students from other ethnic groups. I hoped that through talking to more people and drawing a portrait of Chinese international students' lives, I would not only be able to gain more insights into the factors that affect their English language use in social activities and investigate the reasons behind it, but also understand their perspectives on their social lives and language learning, including how satisfied they were with their overseas study experience.

However, after reading relevant literature, I realized that instead of focusing on the internal reasons why international students choose to live the way they do, I should pay more attention to the external factors, namely the ecology that has an impact on their social lives. For example, studies by Chapdelaine and Alexitch (2004), and Rajapaksa and Dundes (2002) mentioned international students' ecology, their learning and living environment, and the context of their social networks. These studies point out that satisfaction with social networks has a more positive effect on easing loneliness and increasing contentment than does the number of close friends. They also discuss the value of learning the sociocultural rules for effective interaction (Chapdelaine & Alexitch, 2004; Rajapaksa & Dundes, 2002). However, it did not seem to me

that environments and social networks had been sufficiently investigated, compared with individual factors such as students' willingness to communicate in English, motivation, and language proficiency. It seemed as if there was an implication that international students will be successful in their social lives as long as they try hard enough and make the right decisions to socialize with English speaking domestic students. My own experiences and observations had convinced me, however, that "trying hard" is not always enough. International students cannot and should not be the only stakeholder group that is responsible. Investigating their ecology will help us to gain a more holistic view of their social lives.

Through my observations, I have realized that the differences between individuals are tremendous, and what is needed is a more systemic approach. An open, flexible and inclusive environment can benefit students in a wide range of aspects. Therefore, if this study can contribute to building a better system in even a slight way, it may still be helpful to many students.

Personally speaking, this study, the stories and the conversations I have had and will have with Chinese international students are, for me, forms of redemption, and deliverance from my "sins" of not being able to "successfully" socialize with domestic people. I hope this study can further my knowledge and understanding of the problem. I do not intend to suggest that individual effort is not important, but I hope a more dynamic, complex and holistic way to examine the phenomenon can be employed in this study, instead of merely holding international students responsible for all the issues. I hold a strong belief that this study can inspire those who are studying in another country as second language learners and those whose work or study is related to international students. Moreover, I hope it can contribute to a better community for all people.

Issues in International Education

Internationalization aims to create cross-cultural understanding and dialogue; however, access to the host community's social practices is not always readily available to international students and social interaction is often limited. Though studying in a target language country has been thought to offer students opportunities to perfect their second language, develop friendships and relationships with members of the global community and create a new home in a new country, recent literature (Marangell et al., 2018; Wu et al., 2015) has demonstrated that studying overseas is not necessarily the quintessential intercultural social networking building experience after all. It is a common phenomenon in Chinese international student groups that the students are embraced by a Chinese language environment in their personal life, including mostly socializing with Chinese speakers, living with Chinese roommates, and mainly using social media in Chinese.

In many Canadian universities, there is a large community of Asians, especially international students from mainland China, and it is still growing. At UBC for example, according to a 2009 report on direct undergraduate entrants, 43 percent of the students self-identified as ethnically Chinese, Korean or Japanese. Although the large community of co-nationals may contribute to the diversity of Canadian universities and provide support to newcomers, it may also cause segregation, which has drawn widespread attention.

One notable example of this attention was a controversial article initially titled "Too Asian: Some frosh don't want to study at an Asian university" and then finally re-titled "The enrolment controversy: Worries that efforts in the U.S. to limit enrollment of Asian students in top universities may migrate to Canada". This article was written by Nicholas Kohler and Stephanie Findlay, and published in the 2010 edition of the Maclean's Guide to Canadian

Universities. According to the authors, at the University of Waterloo, students had dubbed the Mathematics and Computer Building and the William G. Davis Computer Research Centre—"mainland China" and "downtown China" respectively, and at these buildings, some students could go for days without speaking English (Findlay & Köhler, 2010). The authors noted that the different lifestyles of two large groups on Canada's campuses, Asian and White, resulted in "separation rather than integration" (Findlay & Köhler, 2010). Furthermore, they argued that the lack of public discussion of this issue meant that Canadian universities risked "becoming places of many solitudes, deserts of non-communication" rather than "the cultural mosaics they're supposed to be—oases of dialogue, mutual understanding and diversity" (Findlay & Köhler, 2010).

Social interaction is important to international students because it is related to their well-being and helps with their cultural adjustment. Research has documented numerous experiences of adjustment problems, such as isolation, stress, and difficulty establishing relationships (Al-Mubarak, 1999; Chapdelaine & Alexith, 2004; Wu et al., 2015; Yeh & Inose, 2003). International students have to deal with social isolation when engaging in different group activities, and they need to confront the different ways of thinking and acting in a new country (Wu et al., 2015). On the other hand, satisfaction with social networks can have a positive effect on easing loneliness and increasing contentment (Rajapaksa & Dundes, 2002).

Social interaction also supports the acquisition of English, and having a shared language is important for building meaningful relationships and developing social networks. Some studies indicate that Chinese international students' exposure to the target language in foreign countries, particularly outside the classroom, is so limited that it is not sufficient for them to improve their English, especially in oral communication (Ranta & Meckelborg, 2013; Shi, 2011; Spurling,

2007; Welsh, 2001). Shi (2011), through observing a group of 13 Chinese master's students in the United States, concluded that being immersed in ESL communicative contexts does not ensure that international students can obtain complete access to language and cultural resources in the target society, which fundamentally contradicts the expectations of both the exchange students and the exchange program. Among Chinese graduate students at a Canadian university, Ranta and Meckelborg (2013) also found that the amount of productive exposure was generally quite low, and that the type of high-quality exposure that is believed to enhance the second language acquisition was very limited (Ranta & Meckelborg, 2013). Hence, many Chinese international students may finish their program of study without having any kind of meaningful relationship with a Canadian; nor do they learn about Canada and Canadians, improve their social interaction skills in English, or raise their awareness about culture and language learning.

Purpose of the Study and Research Questions

Therefore, this study will examine how Chinese international students negotiate social networks during their time at a Canadian university and what role the university environment plays in the process. The study explores the social context of internationalization and the personal experiences of participants and examines how the contexts and experiences affect their access to social networks. To achieve the goals stated above, the main research question is:

What are Chinese international students' experiences of building social networks in a Canadian university?

Addressing this research question will also involve considering sub-questions, such as:

a) To what extent did the students' social networks meet their needs?

b) How did the students experience the supports offered by the university?

c) How might universities better assist students in finding the social supports they need to thrive in a new cultural setting?

In addressing this research question, I will adopt an Ecological Perspective to consider environmental and systemic factors that influence international students' experiences. I will also explore the implication of participants' experiences to consider how universities might better assist students in finding the social supports they need to thrive in a new cultural setting.

Significance of the Study

Educators in higher education are facing the challenge of meeting the needs of an increasingly diverse student population (Altbach et al., 2011; Quaye & Harper, 2014). Multicultural campuses need to involve all of their students academically and socially in the experiences they offer. In addition, with the current increase in international connections through economics, communications, transportation, and politics, students must develop cultural awareness and be prepared for the global marketplace through high-quality global education. The purpose of a multicultural curriculum is to "accommodate and respect the varied cultural origins of our diverse population" (Eaton, 1997). A good global education curriculum "encourages understanding of cultural differences and similarities, tolerance, and a globally interdependent view of the world" (Pinhey, 1998, p. 2), and building a social network with people from other ethnic groups is crucial to this understanding.

Building a social network is also important for meeting individual needs for social support, well-being, language development and adjustment to a new cultural environment. By examining how Chinese international students' access, create and negotiate social networks during their time at a Canadian university, this study has a practical aim of seeking to improve the experiences of international students with respect to social inclusion and connectedness.

Furthermore, this study aims to contribute to the greater mutual understanding discussed by Findlay and Köhler (2010).

This study also aims to make an academic and theoretical contribution by addressing some gaps left by previous research in Second Language Acquisition (SLA) and study abroad. Much of the early work in the fields of SLA and study abroad regarded learners as "bundles of variables" and implied choice and individual characteristics (Kinginger, 2004, p. 220), such as, "motivated or unmotivated, introverted or extroverted, inhibited or uninhibited" (Norton, 2000, p. 5). Previous research (Schumann,1980; Schumann, 1976a, 1976b, 1986; Schumann & Schumann, 1977) did not consider that these variables (motivated/unmotivated, introverted/extroverted, inhibited/uninhibited) "are frequently socially constructed in inequitable relations of power, changing over time and space, and possibly coexisting in contradictory ways in a single individual" (Norton, 2000, p. 5). That is, a particular student might be extroverted in one context, whereas in another context, they might be introverted. The shift in attention represented by Norton's work points to a greater role for environmental factors and how they can affect students' circumstances and experiences.

Previous research also mainly focuses on internal reasons for international students' informal interaction with other ethnic group members. Many studies suggest that factors like language proficiency (Kodama, 2007; Liu, 2011; Mori, 2000; Ranta & Meckelborg, 2013; Zeng, 2010), personality (Searle & Ward,1990; Tanaka, 2007), culture values (Chen, 2008; Gao & Ting-Toomey, 1998; Holmes, 2008), former learning experiences (Ranta & Meckelborg, 2013), motivation (Gao, 2006; Ranta & Meckelborg, 2013; Zeng, 2010), identity (Gatbonton et al., 2005), and common ground (Zeng, 2010) affect international students' social interaction with other ethnic group members. Many studies conclude that universities should provide more

support to international students, including adequate assistance or support (Liu, 2011), orientation events and intercultural communication courses (Shi, 2011), special programs aimed at improving international students' social interaction skills, promoting language learning awareness, and community integration (Ranta & Meckelborg, 2013), but few studies have been conducted to examine how the ecology of the university environment affects international students' social network creation. The current study will address this gap.

It is true that Chinese international students are responsible for their lives and should try to reach out to people from different cultural backgrounds, but Canadian universities need to understand that "the responsibility for creating welcoming environments must be shared among community members as well as institutions" (Dunn & Olivier, 2011, p. 37). Universities should not use simple explanations, such as "international students prefer to associate with other international students who share their language and culture," to absolve themselves of any responsibility (Dunn & Olivier, 2011). These explanations may be partially based on observable campus realities, but they do not address the root causes or reasons for the situation (Dunn & Olivier, 2011). There is evidence that many international students have a desire for greater interaction with Canadians (Dunn & Olivier, 2011; Zeng, 2010), although they can receive familiarity, comfort and support in groups of co-nationals. Thus, international students' limited interaction in English or limited socializing with domestic students cannot be explained simply as a choice. Furthermore, we should not overemphasize an individual's ability to exercise full control over his or her level of social inclusion. As Sin and Yan (2003) point out: "the notion of inclusion becomes problematic, particularly if the transformative agenda only focuses on enhancing the individual's capacity instead of tackling the structural barriers that confine individuals" (p. 30). Hence, drawing on an Ecological Perspective, the study will contribute to

this area by examining how the ecology of Chinese international students at a Canadian university interacts with, relates to, and affects international students' social experiences in a new cultural environment. A fuller understanding of this area is crucial if Canadian universities hope to meet the aims of internationalization and foster cross-cultural connections.

Key Concepts

Two key concepts for this study are *social networks* and *social support*. Given the interrelation between social networks and social supports, I will sometimes use the term *social support network* to refer to sets of relationships when emphasizing the role that these relationships serve in providing social supports.

Social Network

The concept of social network has mainly been applied in two research areas, namely, psychology and sociology. In the area of psychology, a social network is a set of individuals or groups that are connected by some form of social relationship, such as friendship, kinship, common interest, or professional affiliation (Antonucci, 2001). In sociology, a social network refers to a series of social connections that links a defined group of people, the characteristics of which have some explanatory power for the social behavior of the people involved (Bowling & Browne, 1991). In this study, I will use the term so*cial network* to refer to the social relationships that the participants build in a new environment, such as relationships with friends, colleagues, supervisors, families, etc.

Social Support

The American Psychological Association (2003) defines *social support* as:

> The provision of assistance or comfort to others, typically to help them cope with a variety of biological, psychological, and social stressors. Support may arise from any

> interpersonal relationship in the individual's social network, involving family members, friends, neighbours, religious institutions, colleagues, caregivers, or support groups. (p. 869)

Thus, while social networks refer to the actual people and relationships, social supports refer to interpersonal benefits that are provided by the relationships. Social support has been found to have a positive impact on life and to decrease psychological stress in general (Flannery & Wieman, 1989; Vaux, 1988). For example, Dunkley et al. (2006) found that low perceived social support, among other variables, was associated with depression, thus, illustrating a link between social support and wellbeing.

Various categories of social support have been identified by theorists and researchers (Barerra & Ainlay, 1983; Himle & Jayaratne, 1991). The present study employs Vaux et al.'s (1987) model proposing five modes of social support, namely, emotional, financial, practical, socializing, and advice/guidance. Emotional social support, according to Vaux, includes listening, showing empathy, expressing concern, and caring and is an important part of managing emotions. Emotional social support generally is provided by people who are in close relationships (Vaux, 1988). Financial/material social support involves behaviours like sending cards, flowers, letters or gifts, the lending/giving of money, assisting with purchases/paying bills, etc. Practical social support refers to behaviours of helping with everyday life, such as childcare, yard work, housework, chores, and assisting with transportation. Socializing support can fulfill the function of distracting and taking the mind off of something, such as stress; for example, someone may be invited to a fishing trip, which distracts from a hard work week (Vaux, 1988). Vaux (1988) explained advice/guidance social support as being elicited by specific questions,

such as “What am I going to do?” (p. 140) and could include recommending a book that may be helpful to read or advice on how to handle certain situations.

Vaux et al.’s (1987) article is a widely cited and influential framework in the field of social support, and in the decades since its publication, it has continued to be a key reference in social support research. The article’s conceptual framework and methodological recommendations have been applied to a wide range of topics, including the role of social support in managing chronic illness (Holt-Lunstad et al., 2015), promoting mental health (Haber et al., 2007; Wills & Shinar, 2000), and enhancing resilience in the face of adversity (Bender, van Osch, Sleegers, & Ye, 2019).

The authors’ typology of social support has also been expanded upon and refined by subsequent research. For example, some studies have proposed additional dimensions of social support, such as companionship support, esteem support, and network support (Cutrona & Suhr, 1992).

Furthermore, the Vaux, Riedel, and Stewart (1987) article has been influential in the development of social support interventions. Many interventions aimed at improving social support, particularly in healthcare settings, are designed based on this typology of support (Chou, 2000; Chung, 2014; Cicchetti et al., 2006; Doty et al., 2010).

Overall, the Vaux et al. (1987) article remains a seminal work in the field of social support and continues to inform current research on social support. For this reason, I have used it as the framework for understanding the concept of social support in this study.

Social Support Network

As noted above, the term *social network* focuses on the set of people and relationships in a person’s life, while the concept of *social support* emphasizes the benefits provided by these

relationships. In referring to the totality of relationships and their interpersonal benefits, I will sometimes use the term *social support network* to emphasize the role that relationships serve in providing social supports.

Overview

In the introductory chapter, I have introduced the topic and research aims, described my person journey, and defined key concepts. The remainder of the dissertation is organized as follows: In Chapter Two, I will present the Ecological Perspective, which serves as the theoretical framework for this study. I describe its key features and explain how this theoretical framework was developed. I also describe how it has been used in other studies and explain why this framework is a good fit for this study. Chapters Three and Four together serve as the literature review for this study. Chapter Three focuses on empirical research and other scholarly work that has investigated the importance of social support networks for international students. Chapter Four provides further background for the research and focuses on the topic of internationalization in universities. The purpose of this chapter is to describe the environmental context needed to understand and interpret the experiences of the study's participants. In Chapter Five: Methodology, I describe the Qualitative Case Study method used for this study. I also describe how the study was conducted, by providing a brief introduction to the participants, the research site, the sources of data, and how the data were collected and analyzed. In Chapter Six, I report on the participants' experiences by presenting themes based on the interview data. The six themes are: expectations before coming to Canada, meeting basic needs in a new environment, the development of social networks, the nature of social lives and social networks, university events as opportunities to expand social networks, and what students think the university can do better. Whereas Chapter Six seeks to closely follow what the participants recounted and how

they described their own experiences, Chapter Seven presents a more interpretive discussion of the main findings of the study by drawing from ecological perspectives and related perspectives. The chapter concludes with a discussion of the significance and implications of this study.

Chapter Two: Theoretical Framework

The purpose of a theoretical framework is to help researchers with their investigations and to identify key issues that they plan to examine in detail (Unrau et al., 2013). It may also "provide researchers with knowledge organized into structures that can frame the discussion of a study's results, their bearing on current instructional practices, and their implications for subsequent research" (Unrau et al., 2013, p 47). For this study, I have chosen to use an Ecological Perspective as my framework. In the following sections, I will present key features of Ecological Perspectives and explain how this theoretical framework was developed. I will also describe how it has been used in other studies. Finally, I will explain how this framework is a good fit for this study since it bridges personal internal factors with external environmental ones.

Ecological Perspectives

Ecological Perspectives concern the developing person, the environment, and especially the evolving interaction between the two (Barton, 1994; Bateson, 1955; Bronfenbrenner, 1979, 1989, 1993). Thus, they offer an excellent framework for bridging individuals' needs, experiences, and psychological circumstances with contextual and structural factors stemming from the environment. Ecology is the study of the interrelationship of human activity and its environments. It concerns how human activity is part of the environment and at the same time how it influences, and is influenced by, the environment (Barton, 1994). Ecological approaches grew from previous works (Baldwin, 1897; Dewey, 1916; Lewin, 1935; Piaget, 1952) that emphasized relations between humans and environments. Ecological approaches are also grounded in long traditions of scholarly work, such as the work of Bateson in anthropology (1955), Bronfenbrenner in human development (1979, 1988, 1989, 1993) and Gibson in visual conception (1979).

Bronfenbrenner, among others, has been particularly influential in advocating for Ecological Perspectives and applying them to human development. Influenced by Lewin's (1935) classical formula that behaviour is a joint function of person and environment, Bronfenbrenner (1979) proposed that development is a joint function of person and environment. In his subsequent work, Bronfenbrenner (1988, 1989, 1993) continuously revised and expanded his definition and propositions of his Ecological Perspective for enhanced explanatory power. For instance, in his later work, he included processes of human development. Processes explain the connection between some aspect of the context or some aspect of the individual and an outcome of interest. Additional background on Bronfenbrenner's Ecological Perspective is provided in the following section.

Bronfenbrenner's Ecological Theory of Human Development

Ecological Perspectives posit an interaction between humans and environmental characteristics. Bronfenbrenner (1979, 1989, 1993) proposed that (a) particular environmental conditions can produce different developmental consequences, depending on the personal characteristics of an individual living in that environment and (b) the same personal qualities may lead to different psychological consequences, depending on the environmental conditions to which the individual has been exposed.

Within Bronfenbrenner's Ecological Perspective (hereafter referred to as the Ecological Perspective), various combinations of environmental and personal characteristics can produce developmental effects that cannot be predicted from knowledge about either of the domains of influence examined independently of the other (Bronfenbrenner, 1993). In this paradigm, synergism is used to refer to a phenomenon of this kind in which the joint operation of two or

more forces produces an effect that is greater than the sum of the individual effects (Bronfenbrenner, 1989).

The Ecological Perspective posits an interaction not only between but also within each of its two constituent domains, which are the individual and environmental characteristics (Bronfenbrenner, 1993). In the Ecological Perspective, the human organism is conceived as a whole, an integrated system in its own right in which various psychological processes—cognitive, affective, emotional, motivational, and social—operate not in isolation, but in coordinated interaction with each other (Bronfenbrenner, 1993).

In this paradigm, the environment is viewed as a system of nested, interdependent, dynamic structures ranging from the proximal, consisting of immediate face-to-face settings, to the most distant, comprising broader social contexts such as classes and culture (Bronfenbrenner, 1993). Bronfenbrenner (1979) proposed four different levels of environments: Micro, Meso, Exo, and Macrosystem, from the innermost level to the most distant level.

Bronfenbrenner (1993) defined microsystem as

> a pattern of activities, roles, and interpersonal relations experienced by the developing person in a given face-to-face setting with particular physical, social, and symbolic features that invite, permit, or inhibit, engagement in sustained, progressively more complex interaction with, and activity in, the immediate environment. (p. 15)

Mesosystem refers to "the linkages and processes taking place between two or more settings containing the developing person" (Bronfenbrenner, 1993, p. 22). Special attention is focused on the synergic effects created by the interaction and processes present in each setting.

The exosystem comprises

> the linkages and processes taking place in two or more settings, at least one of which does not contain the developing person, but in which events occur that indirectly influence processes within the immediate setting in which the developing person lives, (Bronfenbrenner, 1993, p. 24)
>
> The macrosystem consists of the
>
> overarching pattern of micro- meso- and exosystems characteristic of a given culture, subculture, or other extended social structure, with particular reference to the developmentally instigative belief systems, resources, hazards, lifestyles, opportunity structures, life course options and patterns of social interchanges that are embedded in such overarching systems. (Bronfenbrenner, 1993, p. 25)

Thus, at the innermost level, there exists a microsystem, which refers to the complex of interrelations within the immediate setting. The second level of the ecological environment is called a mesosystem, which involves interconnection between settings, such as ties between school and home. The exosystem can be found in the linkage between mesosystems, such as between home and workplace. At the broadest level, the complex of nested, interconnected systems is viewed as a manifestation of overarching patterns of ideology and organization of the social institutions common to a particular culture or subculture. Such generalized patterns are referred to as a macrosystem.

The Ecological Perspective emphasizes perceived environments, rather than the objective real ones. According to Bronfenbrenner (1979), what matters in behaviour and development is the environment as it is perceived rather than as it may exist in “objective” reality. Another aspect of the ecological approach is diversity. According to Barton (1994), the ecological approach examines the social and mental embeddedness of human activities in a way that allows

change. The structure of the settings in a society can become markedly altered and produce corresponding changes in behaviour and development (Bronfenbrenner, 1979).

"Process–person–context–time" an ecological model of human development

In later work, Bronfenbrenner (2005) developed the "process–person–context–time" model of human development. As its name implies, there are four interrelated components in this ecological model of human development. Together these four components offer a framework for "conceptualizing the integrated developmental system and for designing research to study the course of human development" (Lerner, 2005, p. xv). This four-component design permits "analysis of variations in developmental processes and outcomes and a joint function of the characteristics of the environment and the person" (Bronfenbrenner, 2005, p. 115).

Within this model, the *processes* encompass the dynamic bidirectional interactions between the person and other people, objects, symbols, and their ecology. The interaction must occur on a fairly regular basis over extended periods and "such enduring forms of interaction in the immediate environment are referred to as *proximal processes*" (Bronfenbrenner, 2005, p. 6). Since Bronfenbrenner's area of research was human development, especially child development, his examples of such processes include "feeding or comforting a baby; playing with a young child; child-child activities; group or solitary play; reading, learning new skills, athletic activities, problem-solving, caring for others, performing complex tasks, and acquiring new knowledge and know-how" (Bronfenbrenner, 2005, p. 6). He believed that young children develop "the ability, motivation, knowledge, and skill to engage in such activities both with others and on one's own" through participating in such interactive processes. Hence, proximal processes are the primary mechanism through which human potential is actualized and "the primary engines of development" (Bronfenbrenner, 2005, p. 6). To be successful in stimulating

effective continuous development, proximal processes need to be reciprocal, progressively complex and occur regularly over an extended period (Bronfenbrenner, 2005). These interactions are the most powerful forces determining human development and learning outcomes.

Within a process, experience is a critical element. It is used to indicate that "the scientifically relevant features of any environment for human development include not only its objective properties but also the way in which these properties are subjectively experienced by the person living in that environment" (Bronfenbrenner, 2005, p. 5). Bronfenbrenner (2005, p. 5) emphasized the importance of subjective feelings in experience, such as "anticipations, forebodings, hopes, doubts or personal beliefs" that continue through life and are characterized by both stability and change. He believed that the subjective feelings "can relate to self or to others, especially to family, friends, and other close associates", and also "apply to the activities in which one engages" (Bronfenbrenner, 2005, p. 5). Moreover, he suggested that such positive and negative subjective forces "encompassing both love and hate, joy and sorrow, curiosity and boredom, desire and revulsion" (Bronfenbrenner, 2005, p. 5) and "evolving in the past, can also powerfully contribute in powerful ways to shaping the course of development in the future" (Bronfenbrenner, 2005, p. 5).

The next element of Bronfenbrenner's model, the *person,* is endowed with genetic, physical, psychological and behavioural characteristics necessary for development and learning. Bronfenbrenner and Morris (1998) defined three types of personal characteristics that are most influential in shaping the course of development. The first is "dispositions that can set proximal processes in motion in a particular developmental domain and continue to sustain their operation" (Bronfenbrenner & Morris, 1998, p. 995). The second is the person's "ability, experience, knowledge, and skill required of the effective functioning of proximal processes at a

given stage of development" (Bronfenbrenner & Morris, 1998, p. 995). Finally, demand characteristics that invite or discourage reactions from the social environment can foster or disrupt the operation of proximal processes (Bronfenbrenner & Morris, 1998). The combination of the three types of personal characteristics can further account for "differences in the direction and power of resultant proximal processes and their developmental effects" (Bronfenbrenner & Morris, 1998, p. 995).

The *context* of human development incorporates the interacting systems and social characteristics (family, school, neighbourhood, or peers) surrounding the person. Together these components are the ecology of a learner, which consists of all the processes, relationships and external influences that impact learning and human development (Spencer, 2006). The context is conceptualized as the nested levels or systems and categorized by Bronfenbrenner as micro- meso- exo- and macrosystem (Bronfenbrenner, 1979).

The fourth and final defining property of the model is the dimension of *time,* which is conceptualized as involving the multiple dimensions of temporality, for example, ontogenetic time, family time, and historical time, constituting the chronosystem that moderates change across the life course (Bronfenbrenner, 2005). According to Bronfenbrenner and Morris (1998, p. 995), time has a prominent place at three successive levels---micro-, meso, and macro-,

> Microtime refers to continuity versus discontinuity within ongoing episodes of the proximal process. Mesotime is the periodicity of these episodes across broader time intervals, such as days and weeks. Finally, Macrotime focuses on the changing expectations and events in the larger society, both within and across generations, as they affect and are affected by processes and outcomes of human development over the life course.

In conclusion, Bronfenbrenner's ecological systems theory (2005) emphasizes the interconnectedness of the process-person-context-time elements, illustrating how individuals' development is shaped by dynamic interactions within and between these levels, fostering a comprehensive understanding of human development in diverse and ever-changing environments.

Ecological Views of Language Learning and Affordance

van Lier (2000) was instrumental in promoting ecological perspectives in relation to language learning, and his work offers important insights that are relevant for this study. He argued for a reconceptualization of what constitutes language learning, challenging the input-output metaphor represented by cognitivist views of SLA (van Lier, 2004). In particular, he emphasized the concept of affordance, which he borrowed from the work of Gibson (1979).

According to Gibson (1979), affordances are embedded within an environment/ecosystem. Gibson stated that affordances are "what [the environment] offers the animal, what it provides or furnishes, either for good or ill" (1979, p. 127). He went on to say that an animal's awareness and perception of the affordances in the environment play a vital role when determining whether an affordance is helpful or not to the animal or if the animal makes use of it at all. As such, Gibson's (1979) definition views affordances as characteristics that are part of the environment, and which may be picked up and used by an animal based on its perception of its usefulness to the animal at a particular moment.

van Lier (2004) further clarified Gibson's (1979) definition and explained that affordances are not solely a feature found in an environment. Rather, affordances are born out of the interactions between an organism and its environment. van Lier (2004) went on to articulate how his view of affordance relates to language learning. In the context of second language

learning, “The affordance perspective assumes an active learner establishing relationships with and within the environment. In terms of language learning, affordances arise out of participation and use, and learning opportunities arise as a consequence of participation and use” (Auyang, 2000, as cited in van Lier, 2004, p. 92). Thus, from an ecological view, a successful language learner exercises agency over their environment by making use of the affordances that are available in the environment.

van Lier (2000) advocated that an ecological approach to language learning challenges the three premises underlying the standard scientific thinking behind cognitivist views of SLA: “The first premise is that behind the diversity in learning theories and teaching procedures there lies, as a rarely questioned backdrop, the scientific perspective that has dominated Western civilization since the days of Galileo and Descartes” (van Lier, 2000, p. 245). The second premise is that,

> regardless of the particular views of teaching and learning that are espoused by language learning professionals, it is generally taken for granted that learning takes place in the brain, by means of computational mechanisms that process information that is received by the senses. (p. 256)

The final one is that “activity and interaction, or in general the contexts in which learning takes place, relate to learning in indirect ways, by feeding into the cognitive processes that are going on in the brain and mind of the learner, the mind being basically the same as the brain, but at some abstract level” (van Lier, 2000, p. 246).

van Lier (2000) argued that an ecological approach challenges cognitivist views of SLA based on three premises. First, “it shifts the emphasis from scientific reductionism to the notion of emergence” (p. 246). An ecological view does not assume that “every phenomenon can be

explained in terms of simpler phenomena or components" (van Lier, 2000, p. 246), instead, it says that "at every level of development properties emerge that cannot be reduced to those of prior levels" (van Lier, 2000, p. 246). Second, an Ecological Perspective does not consider that "all of cognition and learning can be explained in terms of processes that go on inside the head" (van Lier, 2000, p. 246). Finally, an ecological approach asserts that activity and interaction "do not just facilitate learning, they *are* learning fundamentally" (van Lier, 2000, p. 246, italics in original). Ecology says that "the perceptual and social activity of the learner, and particularly the verbal and nonverbal interaction in which the learner engages, is central to an understanding of learning" (van Lier, 2000, p. 246). Therefore, according to van Lier (2000), "to look for learning is to look at the active learner in her environment, not at the contents of her brain" (p. 247). In other words, an ecological approach looks beyond individual and internal factors and considers the key role played by the environment.

How Ecological Perspectives Have Been Applied in Studies

Ecological Perspectives have been applied in various studies related to second language acquisition and international education, including second language communication strategies (Kang, 2005), computer-assisted language learning (Lafford, 2009; Shin, 2006), interaction patterns of whole-class oral discourse (Thorns, 2008), educational language policies (Hanna, 2011), language learning at a work placement (Sandwall, 2010), Willingness to Communicate (Cao, 2011), distance language learning (Berglund, 2009), and language-exchange interactions in an out-of-class setting (Ahn, 2011). To demonstrate how ecological perspective theories have been applied in research that is relevant for this study, I have chosen three examples from the literature. The reasons for choosing these particular examples are, first, that they are the closest studies to the present one that I can find, and second, that they represent three different ways of

applying Ecological Perspectives. The first study utilized the concept of Affordance. The second one employed the concepts of personal, environmental, and personal-environmental factors from Bronfenbrenner (1979) and the last study applied Bronfenbrenner's ecological systems theory.

Peng (2011) revealed substantial changes in learner beliefs about the English language and its teaching and learning approaches by utilizing the concept of Affordance. During her study which covered a prolonged, transitional period from high school to college, she found that learner beliefs are fluid, contextual and emerging. Through examining the effects of local classroom affordances, including meaning-focused activities, familiar topics, support from the teacher and peers, teaching methods, and lesson goals, it was found that when these "affordances were meaningful and accessible, they served to fuel affirmative thinking about communicative lessons. In contrast, when the affordances were unavailable or not consistent with the learner's experiences, counterproductive beliefs such as a denial of the value of these lessons arose" (Peng, 2011, p. 321). Peng (2011) believes that an Ecological Perspective is an informative theoretical framework for exploring the role of classroom affordances in mediating learner beliefs about SLA.

Kang (2005) conducted a study about how people choose and abandon communication strategies in second language oral communication. Data were collected from 12 Korean university students through interviews, observations and recordings of conversations, and stimulated recalls. In the process of data analysis, Kang (2005), following Bronfenbrenner (1979), "operationalized personal factors as any individual characteristics, and environmental factors as any event or condition outside the person that either influences or are influenced by the developing person" (p. 110). In addition to the personal and environmental factors addressed in Bronfenbrenner's Ecological Perspective, he also identified integrated personal-environmental

factors that operate as a combination of personal and environmental factors. Kang (2005) discussed various personal, environmental, and personal-environmental factors and the resulting intermediary and ultimate factors that influenced the choice between abandoned communication strategies and achievement communication strategies and how they were related to one another.

Bronfenbrenner's ecological systems theory was also employed by Belamaric (2013). In this interview study on the topic of learning Macedonian informally, eleven participants from Albania, Canada, Greece, Hungary, Macedonia, Russia, and the United States described how their learning context impacted their study through self-instruction with online resources (n=5) and with additional help from tutors (n=6). Following ecological systems theory, the author dissected the social environment within which development (and learning) occurred into several nested sub-environments. The microsystem involved the daily face-to-face interactions of the learner with his or her immediate surroundings, such as with family, instructors, coworkers, friends, church. The mesosystem, a larger sub-environment comprised of lateral connections between microsystems and the individuals within those microsystems, included "interactions among the distance learning institution, the family, the workplace, the community, and perhaps a religious institution, and other contexts unmentioned" (Gibson, 1998, p. 115). The exosystem included social settings and/or people who were indirectly involved in the learner's development including the neighborhood, mass media, communication and transportation systems, school or workplace administrators, educational policies and policymakers, innovations in technology, or developments in opportunities for learning. The macrosystem referred to the outermost layer of the environment: the society's customs, beliefs, values, laws, traditions, economy, resources, hazards, lifestyles. These findings from Belamaric (2013) indicate that most of the participants in the study reported support, albeit limited, for their Macedonian language learning and

maintenance in their microsystem, as well as through Internet resources in their exosystem; whereas, their macrosystem exerted a negative impact on their language study because the broader societal and cultural attitudes towards Macedonian were not conducive to promoting its use and acquisition.

Ecological Perspectives and Present Study

Ecological theory has been considered useful in research across many fields. Leonard (2011) praised this framework for analyzing learning settings because "it is expansive, yet focused; one eye is trained on the complex layers of school, family and community relationships, and the other eye is sharply focused on individual student development" (p. 990).

Tissington (2008) pointed out the applied significance of this theory because it suggests that intervention in any of the sub-environments can enhance development. Gibson (1998) examined this theory in a distance education setting, reminding the reader why it is important to consider the broad social context within which distance learning occurs: because this social context "can profoundly affect the success of the distance teaching-learning transaction" (p. 113). Ecological Perspectives have similar benefits for examining adults' learning and social network development in informal settings.

Ecological Perspectives also have some similarities, and are relevant and compatible, with some other major theoretical frameworks used in education. Examples of these other frameworks include Vygotsky's sociocultural theory and Lave and Wenger's concept of Communities of Practice (Wenger, 1998). van Lier (2000) argued that "ecology is a fruitful way to understand and build on the legacy that Vygotsky, Bakhtin, and also their American contemporaries Peirce, Mead, and Dewey left for us" (p. 247). He noted that an Ecological Perspective "questions some basic assumptions that lie behind most of the rationalist and

empiricist theories and practices that dominate in our field and offers fresh ways of looking at some old questions that have been around for a long time" (van Lier, 2000, p. 247). Moreover, it provides us with some useful tools to investigate and examine questions through different lenses, such as the concept of Affordance, the PPCT model and Bronfenbrenner's ecological systems theory.

Therefore, Ecological Perspectives offer a valuable framework for this study to investigate factors that affect international students' development of social networks. The framework provides a theoretical link between internal, individual factors and external, environmental ones. As stated above, the purpose of the study is to identify the role that a Canadian university plays in the process of international students' social network development by examining international students living experiences. The significant advance introduced by Bronfenbrenner in understanding human development over other models is the holistic integration of interpersonal relationships with larger societal, cultural and political forces in the developmental processes (Brendtro, 2006; Swick & Williams, 2006). It is appropriate for the present study because it takes into consideration the totality of adult learners' lives and provides an analytical framework for examining the impact of each of the environmental layers on the learner's outcomes.

Universities, according to Bronfenbrenner, fit the criteria of sub-environments that influence international students' human development. In addition, social network creation and negotiation are an important part of human development. Ecological Perspectives emphasize that to understand human development, the entire ecological system in which growth occurs needs to be taken into account. Universities are a significant part of most international students' ecological systems. Therefore, Ecological Perspectives are a valuable tool to help examine how

international students interact with a Canadian university in the process of social network building by investigating Chinese international students' experience of intercultural socialization.

Moreover, the concept of affordance that van Lier defined as "a particular property of the environment that is relevant –for good or for ill-to an active, perceiving organism in that environment" (van Lier, 2000) can be very helpful to identify what affordances the university as an environment offers to international students and analyze how international students as active and perceiving "organisms" use the affordances. This type of analysis can help to indicate the relationships between international students and their university environment. In summary, Ecological Perspectives as a theoretical framework can help the researcher to investigate the environments of the participants in a holistic way. They can also bridge individual needs and experiences with external factors stemming from the environment.

Chapter Three: Review of the Literature

This chapter provides a background for the study by presenting related research and scholarly work on the importance of social support networks for international students. It examines the existing literature on how social support networks informal interactions through language, and cultural learning contribute to the academic and social adjustment of international students. It also discusses the challenges and opportunities that international students face when developing social networks and using the supports that universities offer.

International Students and Social Support Networks

Many people believe that studying in an English-speaking country offers students opportunities to improve their English language proficiency, develop friendships and relationships with members of the host community and create a new home in a new country. However, recent literature (Cao et al., 2021; Marangell et al., 2018; Wu et al., 2015) has demonstrated that studying overseas is not necessarily the quintessential intercultural social network building experience after all. International students who arrive in a foreign country to pursue a degree in higher education have often left their entire social network behind (Hayes & Lin, 1994; Lacina, 2002; Mori, 2000). Thus, it is not surprising that they experience a range of challenges, since they must develop entirely new social support networks. This section will explore the importance of social support networks for international students who study in a foreign country. It will also examine the challenges, benefits, and factors that influence their social interaction with the host population.

Challenges of Studying Overseas

Studying overseas can pose various academic, social, and cultural challenges for international students. Wu et al. (2015) discussed the kinds of academic challenges, social

isolation, and cultural adjustment that international students can face. They found that international students have to deal with different academic expectations, teaching styles, and assessment methods in a new educational system. International students also face social isolation, segregation, and feelings of inferiority when participating in group activities and adapting to different ways of thinking and acting in a new country (Halpern & Aydin, 2021). Research has also found that international college students experience high levels of acculturative stress, which can negatively affect their health and academic success (Hansen et al., 2021). These challenges can affect their sense of belonging, identity, and self-esteem. Wu et al. (2015) argued that the university needs to be prepared to meet students' needs not only academically but also socially and culturally.

One of the most effective strategies for international students to overcome these challenges is to establish social interaction with the domestic population, including other international students. Social interaction with the host culture is particularly important to successful cross-cultural adjustment (Mallinckrodt & Leong, 1992; Paige, 1990; Ying & Liese, 1991). Higher degrees of interaction with hosts are associated with lower levels of cross-cultural difficulties. International students who engage in higher levels of social interaction with members of the host culture are more likely to learn the social rules and skills of that culture and, consequently, experience less social difficulty in their cross-cultural interactions (Chapdelaine & Alexitch, 2004). Moreover, social interaction can also reduce the stress and pressure that international students may feel when they are adjusting to the host culture (Yeh & Inose, 2003).

Several studies have emphasized the significance of social interaction in aiding international students to adapt to their new surroundings. For instance, Bender et al. (2019) found that social support was positively linked to the psychological adjustment of international

students. Similarly, San and Guo (2023) found that institutional and social support increased academic adaptation, which in turn enhanced academic performance.

Other studies have also highlighted the importance of social interaction in helping international students adjust to their new environment. For example, a study by Gómez et al. (2014) reported that the two most significant predictors of social adjustment for international students were on-campus socialization opportunities and the establishment of strong host networks. A study by Chen et al. (2014) found that social support from peers was positively associated with the academic performance of international students.

Factors Influencing Social Support Networks

However, not all international students are able to form or maintain social support networks with ease. There are a range of factors that can influence their social interaction with the host population. One of these factors is language skills. Ying (2002) found in a 14-month longitudinal study of Taiwanese international students that forming friendships with Americans that good English skills (and therefore enhanced communication skills) had a positive effect.

A second factor is personality traits. The same study by Ying (2002) also found that extraversion played a positive role in forming friendships. Hayes and Lin (1994) found that instrumental competence, assertiveness, persistence and social intelligence positively influenced the building of social support networks by international students, while shyness, loneliness, low self-esteem, cynicism and pessimism encumbered this process.

A third factor is cultural differences. Due in part to cultural differences, international students (including European international students) have reported experiencing more difficulties in social interaction in the host country than they experienced at home (Chapdelaine & Alexitch, 2004). It has also been found that intercultural interaction may play a predominant role in

students' experiences of universities (Marangell, 2023). Individual personality traits and cultural characteristics are sometimes hard to separate but should both be considered in relation to how they affect the experiences of forming social networks.

Role of the Host Culture and Other International Students

In addition to these factors, the host culture and other international students can also play a significant role in providing social support for international students. Yoon and Portman (2004) pointed out that although the personal factors of international students may play a role in finding social support from Americans, the influence of the environment and the willingness of students from the U.S. to be in contact with international students should not be neglected. For example, international students who have experienced linguistic discrimination often suffer from inferiority complexes, leading to social withdrawal, a sense of non-belonging, low self-esteem, fear, and anxiety over speaking English (Dovchin, 2020). The role of the university, the faculty, the administrative staff, and the students in facilitating or hindering social interaction is crucial (Furnham & Bochner, 1982; Lin, 1998; Trice, 2004).

The responsibility of building a social support network should not all be left to the culturally non-dominant person. Yoon and Portman (2004) asserted that the victim should not be blamed; host nationals also carry some responsibility if international students experience difficulties. Thus, to counterbalance international students' feelings of rejection, host nationals' efforts to have contact with international students may be necessary and beneficial (Yoon & Portman, 2004). Halpern et al. (2022) also argued that universities committed to internationalization should promote cross-cultural integration among international and domestic students, faculty, and staff. Such practices would help international students feel included and, at

the same time, enrich the education and lives of domestic students and faculty by promoting diversity across campus (Halpern et al., 2022).

On the other hand, social support from other international students, including students from their own country of origin, can also help to reduce academic stressors (Misra et al., 2003). However, it has also been suggested that the formation of a subculture leads to isolation from the host culture (Misra et al., 2003). Therefore, Trice (2004) suggested that relationships with host nationals should be encouraged because these relationships help international students to access opportunities and resources. Interestingly, the findings of the Trice study, which included European international student participants, did not suggest that forming relationships with other international students prevented the building of relationships with host nationals. Similarly, Misra et al.'s (2003) findings indicated that those who were friends with other international students also attended campus social events and interacted the most with U.S. American students. This suggests that it is important for international student support services and counsellors not only to encourage interactions with host nationals but to encourage interactions with other internationals.

Limited contact with host nationals has been shown to lead to stress related to the process of acculturation. For example, Poyrazli et al. (2004) found that those international students who interacted solely with other international students reported more stress related to the acculturation process than those who interacted with both host nationals and international students. Moreover, Schmitt et al. (2002) demonstrated that perceived rejection by the host culture can play a significant role in between-group identification. Their study with a non-European international student sample supported the idea that group identification among

international students from different countries may be formed out of shared rejection from the host culture.

Section 3.1 has discussed the importance of social support networks for international students who study in a foreign country. It has also explored the challenges, benefits, and factors that affect their social interaction with the host population. Furthermore, it has examined how the host culture and other international students can influence their social support networks and adjustment. Social support networks can help international students to cope with their academic, social, and cultural difficulties, as well as to enhance their cross-cultural learning and adjustment. However, forming and maintaining social support networks is not an easy task for many international students. They have to overcome various personal and environmental barriers that may prevent them from establishing meaningful and satisfying relationships with the host culture. Therefore, it is important to understand the experiences of international students as they seek to form social support networks. Through such an understanding, it may be possible to improve the opportunities for international students to interact and integrate into the new society.

The Role of Language

Language has been pointed out as a major barrier to international students' overall adjustment in host countries (Gillette, 2007; Mori, 2000; Trice, 2004; Ward et al., 2001). For international students in most of Canada, English is essential to their academic pursuits, such as note-taking, assignments, tests, presentations, and discussions with professors and fellow students, as well as their socio-cultural and psychological adjustment (Noels et al., 1996; Yang et al., 2006). Universities that host international students put in place programs and activities to enhance international students' language proficiency and confidence. Such programs frequently include a combination of formal and informal elements, such as, orientation, English courses,

conversational partners, homestays, social and cultural events (e.g., coffee hour, international movie series, basketball game, day trip).

Initially, language interventions relied heavily on classroom-based instruction, but recently, there has been an increased interest in opportunities for informal interactions, which provide authentic language exposure as well as language production opportunities (Gor & Long, 2009). Informal interactions provide language input and output which are considered to be the main drivers of second language acquisition (SLA). Interactions also provide opportunities for feedback, including negotiation for meaning, which Long (1983) found to play a key role in language learning. The lack of such interactions is possibly part of the reason why language barriers are found to persist among international students, although they have undertaken several years of formal education in English in their home countries (Ward et al., 2001) and provided proof of language proficiency such as TOEFL (Test of English as a Foreign Language) before university admission (Mori, 2000).

Informal language interactions also frequently occur in the context of social interactions between English native speakers and international students, which can provide international students with opportunities for academic, social, and emotional support (Ward et al., 2001). In addition to developing language proficiency, a growing body of evidence shows that informal interaction with English language speakers is conducive to the development of English self-confidence among various groups of English language learners, such as international students (Clément, 1986; Clément et al., 1994; Yang et al., 2006), adult immigrants (Norton & Toohey, 2001; Raschka et al., 2002; Smith, 1996, 2002; Yum, 1982), and first-generation adolescent immigrants (Carhill et al., 2008; Isabelli-García, 2006; Jia & Aaronson, 2003; Norton & Toohey, 2001; Raschka et al., 2002; Smith, 1996, 2002; Yum, 1982). An important finding from the

aforementioned research is that language learning outcomes are intimately associated with the quantity and quality of interpersonal interactions.

Although the benefits for international students to use English in informal interactions and build relationships with non-conational people are clear, as previously noted, Ranta and Meckelborg (2013) found that the amount of English use is often very limited. In their longitudinal study, the quantity and quality of exposure were "measured using a computerized log that participants completed for one week each month over six months" (Ranta & Meckelborg, 2013, p. 1). It was found that although the total amounts of second language exposure that combine both receptive and productive language use were more than their first language, high-quality exposure of the kind that is believed to enhance second language acquisition was very limited (Ranta & Meckelborg, 2013).

According to the literature, many factors may influence international students' use of English outside their time spent in class. Many of these factors have been identified and discussed in the literature on "willingness to communicate". This concept is defined as "a readiness to enter into discourse at a particular time with a specific person or persons, using a L2" (MacIntyre, Do¨rnyei, Cle´ment, & Noels, 1998, p. 547). The factors that have been identified include language proficiency, personality, cultural values, previous learning experiences, motivation, identity, and common ground. As can be seen, these factors reflect the tendency to focus on individual characteristics rather than environmental ones. In the sections that follow, I briefly summarize research on each of these factors associated with willingness to communicate.

Language Proficiency

Language proficiency is an important factor that has an impact on Chinese international students' use of English and, consequently, their development of social networks. Mori (2000) noted that language difficulties seem to be the most significant issue in terms of the effect not only on academic performance but also on social interaction. In a study by Kodama (2007), it was found that the weak English-language skills of international students resulted in low self-esteem because of the struggles to make themselves understood in the new language community (Kodama, 2007). Zeng (2010) also found that some Chinese international students attributed failures in interaction to their poor pronunciation and limited language proficiency.

Moreover, international students from China who have achieved high scores on language tests like the Test of English as a Foreign Language (TOEFL) and the International English Language Testing System (IELTS) usually have high expectations of their success in study abroad programs; however, high test scores may not mean high oral English proficiency (Ranta & Meckelborg, 2013). The unanticipated challenges of studying in a foreign country may severely affect international students' confidence in interacting with others (Liu, 2011). Consequently, their diminished confidence and lower self-perceived communication competence may hinder their willingness to interact in English outside of class and affect their social interactions.

Personality

Personalities also play important roles in Chinese international students' attempts to communicate in English. According to Searle and Ward (1990) language learners who are willing to actively seek out new ideas and experiences seem to be more successful than those who are more introverted. Additionally, students with higher levels of self-confidence and risk-

taking have been shown to be more willing to speak English outside the classroom (Lee & Lee, 2020). Hence, Chinese international students who tend to stay in their comfort zone may have less willingness to communicate with people from other ethnic groups than the ones whose personalities are more extroverted and "adventurous" because of the differences in their responses and openness to social activities in a foreign country (Liu, 2011). Tanaka (2007) also found that a student's personality (e.g., activeness, shyness) can influence the amount of interactive contact with the second language. Yashima, MacIntyre, and Ikeda (2018) found that individual participant tended to create challenges for herself in the process of communication due to her personality and affected her interaction with other students.

Cultural Values

Besides language proficiency and personality, Chinese culture that values modesty and implicitness may also influence Chinese international students' use of English in their social lives. Chinese traditional culture treats shyness and silence as important moral values or virtues. Old sayings such as "let the matter rest so as to annoy nobody," and "silence is the most precious," teach people to value reserved mannerisms and seriousness. Therefore, the influence of traditional culture may lead to many Chinese students being less socially extroverted (McCae et al., 1996), less expressive (Gao, 1996), more modest and humbler (Gao et al., 1996), and engaging in more self-effacing behaviours (Bond et al., 1982) than North Americans. The result may be less use of English outside of class. Moreover, Chinese students' culture of saving face (Chen, 2008; Gao & Ting-Toomey, 1998; Holmes, 2008) may also result in their more easily becoming embarrassed and anxious when they make mistakes in conversations, which may then result in a reluctance to use English in social situations. According to Wen and Clement (2003), Chinese students' unwillingness to communicate in public is not a language phenomenon that is

specific to learning the English language. It is deeply rooted in Chinese philosophy and culture, finding expression in two aspects governing interpersonal relations: an other-directed self and a submissive way of learning.

Previous Learning Experiences

English education in China focuses more on reading and writing, rather than speaking and listening. Therefore, international students from China, although they have achieved good performance in exams, are not necessarily familiar with oral communication in English. Hence, it can be challenging for these students to change the ways of using English they have experienced for years. Additionally, learners' former language learning strategies that fit in the context of learning in China may not work in universities in Canada (Ranta & Meckelborg, 2013). These strategies may include highly dependent and passive ways of learning, which may also reduce Chinese international students' willingness to interact in English.

Motivation

It has been widely recognized that students' motivation is related to their willingness to communicate in English (Hashimoto, 2002; Khatib & Nourzadeh, 2015; Kruk, 2022; Peng, 2007; Yashima, 2002). Zeng (2010) found that many Chinese international students wanted to learn English mostly to obtain better jobs, to earn more money, to have an above-average lifestyle, or to provide better education for their children; only a small number indicated that they would like to explore the new life in Canada and experience Canadian culture. In other studies (Gao, 2006; Ranta & Meckelborg, 2013), it has similarly been found that some Chinese students appeared to view English knowledge as a tool for their academic and career pursuits, rather than as a personal goal. In addition, some studies indicate that Chinese learners of English are most often

preoccupied with a kind of “certificate motivation”, which is also a type of instrumental motivation (Chang & Wong, 2008; Salili & Lai, 2003; Shi, 2000).

These results suggest that the motivation of many Chinese international students to learn English is to gain practical benefits in their lives by studying in Canada, rather than acquire familiarity with the new culture. Their lack of interest in the new culture, low tendency to connect to the Canadian community, and limited motivation for membership in the local society may result in limited communication with Canadians.

Identity

The use of Mandarin instead of English among Chinese international students can also be a way to express their original Chinese identity. Studying abroad may lead to the loss of Chinese international students’ sense of membership and belonging in their social circles in China because of their long-term absence. Therefore, speaking their first language, using social media in Chinese, and socializing with other Chinese students can be means to preserve and maintain their identity. The result, however, may be a lack of interaction in English in their social lives. Furthermore, native-like English pronunciation among Chinese speakers can be considered a sign of disloyalty to the home culture (Gatbonton et al., 2005)

Common Ground

It has been found that willingness to communicate in the target language will increase and anxiety will decrease if language learners communicate in an informal setting with common topics (Horowitz, 2019). International students from China who want to communicate with domestic people may find that it is difficult to find common ground between themselves and their interlocutors. As a result, they may be more inclined to communicate in Chinese with other Chinese speakers, with whom it is easier to find something in common. In Zeng’s (2010) study

of Chinese international students, the participants believed that when people enter a culture different from their home culture, they might find it difficult to find something in common to talk about. They indicated that it was relatively hard to find common areas of interest to discuss with English speakers because of differences in interests such as sports. In a study of Chinese and Slavic immigrants, Derwing et al. (2008) similarly found that it was challenging for Mandarin speakers to find common topics with their domestic interlocutors. Consequently, communications with Canadian interlocutors may stay at a superficial level. For Chinese students who seek in-depth conversations, interacting in Mandarin might make it easier to achieve a satisfactory result.

Cultural Learning

Social networks and the interactions they provide are also an important source of cultural learning. Recent views depict adjustment as an iterative process in which individuals adjust gradually and unevenly as they encounter various aspects of the culture (Anderson, 1994; Bennett, 1998; Furnham & Bochner, 1986; Lo Bianco, 2003, 2004; Taylor, 1994). They also emphasize responses to cultural incidents and strategies for managing stressful situations. Commonalities among these views include the idea that cultural encounters cause individuals to become aware of their own and others' cultures. As individuals interact in the new culture, they face obstacles or disequilibrium leading to a variety of individual responses. Increased understanding of the new culture and the ability to cope depends on these responses. Consequently, when students do not interact with the host culture, they fail to learn the sociocultural rules for effective interaction and follow their own cultural rules, which can result in adjustment problems (Chapdelaine & Alexitch, 2004).

As shown in a study by Stanton-Salazar (1997), informal interactions serve as opportunities to obtain various funds of linguistic and cultural knowledge, such as institutionally sanctioned discourses (e.g., socially acceptable ways of using language), academic-related knowledge (e.g., terminologies), technical funds of knowledge (e.g., note-taking skills, phrases and expressions of presentation). Therefore, informal interactions are crucial for international students to explore, utilize, discover, and create new cultural and linguistic resources. As with the development of English language proficiency, social interactions allow for the development of new cultural knowledge, which in turn, makes it easier to take part in subsequent interactions.

Support from Universities

With the increase of international students, it is also important to consider the role of the university in encouraging and supporting cross-cultural interaction and the development of social support networks. Many scholars have suggested that universities should provide more support to international students. For example, Liu (2011) advised universities to provide adequate assistance or support and realize that international students are not only "subject learners," but also "culture and language learners" in the community (Spurling, 2007, p. 114). Shi (2011) indicated that it would be helpful for international students to receive orientations and intercultural communication courses that can help students recognize specific cultural differences and then recommend solutions. International education programs could also provide icebreaking opportunities to increase comfortable interactions between international students and people in the target society (Shi, 2011). Ranta and Meckelborg (2013) also recommended special programs aimed at improving international students' social interaction skills, promoting language learning awareness, and community integration.

Lin and Liu (2016) suggested that host institutions should show more interest in understanding the systems that international students are from in order to adapt how things are done in the host university to make it a more accommodating place for international students. They added that such an approach may create opportunities to learn and to engage international students more. Marangell, Arkoudis, and Baik (2018) argued that international student integration is not only a university issue, but also a community one. Thus, they indicated that universities should expand efforts to include engagement with the greater community to create a more well-rounded internationalized university experience for all students by acknowledging and harnessing the inherent diversity of the local community.

According to Wu, Garza, and Guzman (2015), having a better understanding of international students' academic challenges can help university faculty and staff recognize students' needs and more effectively offer supportive campus resources and services. They noted that universities need to be prepared to meet students' needs not only academically but also socially and culturally. They further suggested that universities should be prepared to welcome and support the preparations that need to be made by international students from the moment of their arrival.

Tavares (2024) pointed out that international students felt excluded and othered in the community due to a lack of intercultural awareness and sensitivity within the superficially multicultural community, a lack of institution-led initiatives to include the students through socialisation with peers, and the limited internationalisation of the curriculum. The paper concludes with a call for universities to recognise international students as a marginalised group and to potentially address structural issues that internationalisation frameworks have neglected (Tavares, 2024).

Summary

In this chapter, I have summarized the current body of literature that delves into the ways in which informal interactions, culture learning, and social networks play a role in the academic and social acclimatization of international students. I have focused on the obstacles and prospects encountered by international students as they forge social networks and make use of the resources offered by universities.

Much of the previous literature has predominantly explored internal factors such as language proficiency (Kodama, 2007; Liu, 2011; Mori, 2000; Ranta & Meckelborg, 2013; Zeng, 2010), personality traits (Yashima et al., 2018; Tanaka, 2007), and motivation (Gao, 2006; Khatib, & Nourzadeh, 2015) in relation to their impact on social interactions and students' willingness to use the English language and their social interactions. Therefore, the environment and external factors have not been sufficiently discussed in the previous literature.

Previous literature has also predominantly concentrated on undergraduate students and has generally relied solely on student viewpoints as data sources. By using an Ecological perspective, my study addresses certain gaps in understanding the interplay between the social network development of international doctoral students and their surroundings. It emphasizes the influence of the environment on the development of students' social networks. Additionally, it introduces a university-oriented vantage point by incorporating contextual information and documents that describe the university environment.

Chapter Four: Ecological Context

This chapter is a continuation of the literature review and focuses on the topic of internationalization in universities. An Ecological perspective emphasizes the importance of the environment and interactions between individuals and the contexts in which they are embedded. Thus, the purpose of this chapter is to describe the environmental context needed to understand and interpret the experiences of the study's participants. The chapter begins with the broad global context of internationalization in higher education. As a background for understanding the broad ecology and chronosystem, it considers the perspectives of students, faculty, institutions, and governments to discuss how internationalization has affected higher education institutions over time, focusing in particular on the last 10 years. Next, the chapter presents trends, reactions and policy shifts toward internationalization within four major English-speaking countries that receive a large number of international students: the United States, the United Kingdom, Australia, and Canada. Finally, the chapter describes the local university context of the study's participants. Information is summarized from key university documents, such as the Institutional Strategic Plan, the International Strategic Plan, and the Comprehensive Institutional Plan.

Global Context

Internationalization in higher education firmly took hold after World War II, when economic and technological development led to public trust in universities in the West as centers to produce knowledge and technology that helped to fuel the creation of the global community (Guruz, 2011). Since then, the demand for high-quality international education and international student mobility has continued to increase (Guruz, 2011; Knight, 2008). Internationalization has evolved from a marginal and minor component to a global, strategic, and mainstream factor in higher education over the past 25 years (Knight & De Wit, 2018). It is now one of the major

factors shaping higher education, and it continues to evolve rapidly to meet the challenges of the 21st century. Internationalization is defined as "the intentional process of integrating an international, intercultural or global dimension into the purpose, functions and delivery of post-secondary education, in order to enhance the quality of education and research for all students and staff, and to make a meaningful contribution to society" (de Wit et al., 2015, p. 29). Internationalization of Higher Education pursues broad and different goals; however, Sharipov (2020) suggests that the most important aims are diversifying financial income by attracting international students, sending domestic students and teaching staff abroad to improve their global perspectives, and fostering educational cooperation with foreign institutions to enhance the educational resources of domestic universities.

The transformation of higher education through internationalization is being driven by various factors, such as the development of technology, especially in communication, the dominance of the knowledge society, increased international labour mobility, more demand on the open market and free trade, increased levels of private investment and decreased public funding for education, and lifelong learning (Knight, 2008; Larsen et al., 2002).

The impacts of internationalization are complex, diverse, and differentiated (Knight, 2008; Larsen et al., 2002). It offers a range of benefits for individuals, institutions, and society. These include international job opportunities for students and international collaboration opportunities for researchers and faculties, increased university revenue, and contributions to the economy at the local and global level (Guruz, 2011). Internationalization also stirs debates, especially on the topics of education quality, equitable access to higher education, and shifts in university values (Altbach, 2013; Boyer et al., 2016; Knight, 2008). The following sections

further discuss impacts of internationalization in relation to key stakeholders: students, faculty, institutions, and governments.

Students

The popularity of pursuing education abroad has grown in the past decades. In 2022, there were over 6.4 million international students around the world, over four times the 1.6 million students in 2000 (Project Atlas, 2022). A large body of research has demonstrated the benefits of international study, including appreciation for global issues, intercultural awareness (Douglas & Jones-Rikkers, 2001) and growth in intercultural communication skills (Langley & Breese, 2005). Continuous upgrading of knowledge and skills are important for students to adapt to a global labour market, and the increase in the cultural diversity of communities and the workplace (Knight, 2008). Families from developing and middle-income countries are willing to pay the differential fee charged to foreign students for learning opportunities in the best universities of the world and, presumably, for a better life (Guruz, 2011). Moreover, international student mobility is increasingly linked to international migration (Guruz, 2011), such that many international students now become permanent inhabitants of their new country rather than being temporary residents.

However, some concerns have been raised about inequality of access to higher education (Altbach, 2013; de Wit et al., 2018). Some host countries and their residents have argued that the large inflow of international students could result in limitations to the access opportunities of their nationals to some highly critical fields of study (de Wit et al., 2018). Meanwhile, the inequality in higher education worldwide means that only students who can afford high tuition fees and living expenses can receive high-quality education opportunities (Altbach, 2013). Many would say that international education helps satisfy a growing demand for further education and

offers opportunities to individuals from across the globe; however, movement alone does not ensure the equity of access, and it often remains that an international education is only available to those who can afford it (Van der Wende, 2001).

Concerns have also been raised about changes to how higher education is funded and the subsequent impacts on education quality and quality of campus life for all students (Altbach, 2013; Boyer et al., 2016). As access to higher education has widened to larger groups in the population, government spending per student has decreased, and the conditions of study have deteriorated (Altbach, 2013). At the same time, the cost of providing higher education has increased in most countries (Guruz, 2011). To make up for this funding shortfall, the role of the private sector, much of it for-profit, has expanded dramatically, and education quality can be poor when profit making becomes a key aim (Altbach, 2013).

Faculty

From the perspective of faculty members, internationalization provides more international research and teaching opportunities (Guruz, 2011), develops intercultural competencies through internationalization initiatives, and provides deeper knowledge and understanding of the world and different cultures (Knight, 2008). However, there are also arguments regarding how the award system has changed over the past 2 decades and how internationalization affects the quality of academic life.

It is often argued that research has been valued more and given priority over teaching for a long time in academia (Chen, 2015). As universities face increased pressure in recruitment, especially in international recruitment, they need to build and maintain their global reputation. Therefore, they need to place even more emphasis on research and publication since these areas can improve their ranking and attract more international students. As a result, “teaching is not

well rewarded, and faculty who spend too much time counselling and advising students may diminish their prospects for tenure and promotion" (Boyer et al., 2016, p. 11).

Faculty who are drawn to the profession mostly because they love teaching or service may feel alienated since research and publication have become the primary criteria for promotion and evaluation (Chen, 2015). Hence, although teaching and service are still part of the major professional obligations, they are not always adequately recognized by universities or the academic community. Boyer et al. (2016) argue that faculty members on many campuses are experiencing a climate that restricts creativity and increases social separations and divisions. Furthermore, they question whether students continue to be well served and whether the work of faculty, such as teaching and service continues to prioritize serving students (Boyer et al., 2016).

If the academic profession becomes less attractive to the "best and brightest" (Altbach, 2013) because of financial and other pressures, the quality of the faculty will be impacted. Altbach (2013) argues that the quality of the academic profession has deteriorated on average, and that a growing number of academics do not have advanced degrees or permanent positions. Increased enrolment of international students not only increases the workload of faculty, but also requires more training and learning. If teaching and service are not well rewarded, faculty members' motivation to provide high quality education and seek more training in helping international students may diminish.

Institutions

At the institutional level, internationalization presents new opportunities and benefits, while also bringing new risks and challenges (Zahra et al., 2008). Debates on the potential impacts of internationalization often raise questions about the core academic values of universities and colleges, particularly in relation to serving the public good versus private

interests and whether institutions should be non-profit or profit driven. The emphasis on the triad of teaching/learning, research, and service to society has traditionally guided the evolution of universities and their contribution to the social, cultural, human, scientific, and economic development of a nation and communities (Jones et al., 2021). However, in the General Agreement on Trade (GAT), education is seen as a tradable commodity. Moreover, service to society is rarely the focus of internationalisation strategies (Jones et al., 2021). It is difficult to separate internationalization from commercialization in higher education, which leads many to wonder whether the traditional roles of universities are still valid or whether universities have become primarily a private good for individuals' consumption and benefit (Knight, 2008). Higher education institutions must rethink their mission and place in society because of the demands of competition from the government, the private sector, civil society organizations and local communities (Watson et al., 2011).

Questions about higher education as a public good can impact university funding since arguments that universities should be publicly funded are based on the view that higher education benefits the entire society. However, as private and individualistic arguments come to play a greater role in debates about higher education, one result is that governments pay a smaller share of the costs of higher education systems, and individuals must now pay a greater share (Altbach, 2013). Public institutions are facing both decreased public funding and increased operational costs in an environment of increased accountability and growing competition (Knight, 2008). Many institutions are now looking to internationalization as a way to generate alternative sources of revenue (Knight, 2008), since differential fees for international students mean that they pay more into the institution's operating funds.

Because of changing views of the role and functions of governments in higher education, public subsidies have decreased in the last decades. Institutions of higher education increasingly rely on tuition fees, and the share of private institutions in national higher education systems has expanded (Guruz, 2011). In return, Institutions of higher education in many countries have gained more freedom to generate revenue, and they are operating much more like business enterprises in a free-market economy by being increasingly held accountable to quantifiable output indicators (Guruz, 2011). Institutions are competing for "a market share of international feepaying students, or for-profit education and training programs, or for educational services like language testing and accreditation services" (Knight, 2008, p. 28). International higher education is now a global business, and it will become even more so in the future (Ince, 2019). To compete with other domestic and international institutions, establishing international recognition and achieving international standards are even more crucial not only for funding, but also increasingly for the recruitment of high-quality academic staff and students (Guruz, 2011). The profile and reputation of an institution has become more and more important, and institutions are investing heavily in marketing and branding campaigns to achieve name recognition and increase enrollments and successfully compete in a more commercial environment (Knight, 2008).

However, this kind of global competition for funds, foreign students, and academic staff may lead to greater inequality in higher education worldwide. Top universities have already established their worldwide recognition, and they can attract funds, students, and scholars to maintain their position (Altbach, 2013). In contrast, academic institutions at the bottom of the hierarchy, mostly universities in developing nations, face increasingly intense global competition, making it difficult to improve their prospects (Marginson, 2007). Top universities are mostly established in the traditional academic centers, especially in the large English-

speaking countries, which dominate the world's higher education system (Altbach, 2013). Moreover, those at the top of the academic hierarchy, are increasingly part of the global knowledge network, in which other universities especially in the developing world find themselves involved but marginalized (Altbach, 2013). The increase in inequality in global higher education can be a problem, especially for academic institutions in developing countries (Carpentier & Unterhalter, 2011). Globalization may not be the root of these inequalities, but it has exacerbated them (Altbach, 2013).

The increase in international education by institutions and new private commercial providers has also raised questions of quality assurance. The rise of internationalization as a source of revenue has led to an increase in private institutions that mainly serve international students. These new private commercial providers are not normally part of the traditional quality assurance programs that serve as accreditation agencies for universities (Knight, 2008). This may lead to low quality of education in some of the private institutions (Altbach, 2013). Thus, while internationalization can help to strengthen the quality of higher education institutions and the primary functions of teaching/learning, research, and service, it also poses challenges related to institutional values, funding, equity, and quality assurance (Knight, 2008).

Governments

Economic rationales increasingly define internationalization policies and efforts, and this is especially true at the government level. The recruitment of foreign students and scholars is becoming an increasingly important economic factor (Van der Wende, 2001). Since global higher education is now a multibillion-dollar market, it has become a priority of many governments to obtain a share of the market and expand this segment (Guruz, 2011). Education has become a tradable commodity, and the internationalization of higher education has become a

more important factor in the definition and development of national higher education policies and strategies (Van der Wende, 2001).

An important aim of these policies and strategies regarding the internationalization of higher education is to prevail in the global competition for a highly skilled workforce (de Wit et al., 2018). For many countries, brainpower (the skills and abilities of a qualified person) is an increasingly important issue because of the growing mobility of professional or skilled workers (Knight, 2008). The "brain drain", also commonly known as the brain exchange, flows largely from developing and middle-income countries to the main centers, in North America and Europe (Altbach, 2013). Many countries have formulated national-level policies aimed to attract foreign students to ensure that the flow remains in their favor (Van der Wende, 2001).

In recent years, foreign student recruitment and meeting a country's needs for skilled labour through immigration have become more directly linked (Guruz, 2011; Knight, 2008). The general direction of international student mobility corresponds to the general direction of skilled labour migration, from knowledge users to knowledge producers, and the internalization strategies of higher education and immigration policies are increasingly aligned, with more selectivity for skilled immigrants (Guruz, 2011). Thus, the interrelationships between national policies for international education, migration, and human capacity-building efforts are more complex and demand serious consideration by education policymakers (Knight, 2008).

Despite the competitive pressures of internationalization on individual countries, there are some global issues and challenges that cannot be addressed at the national level. To solve global problems such as those related to the environment, health, and international crime, international and interdisciplinary collaboration is crucial (Knight, 2008). The level of specialization and investment in advanced research also requires more international cooperation

(Van der Wende, 2001). Therefore, governments are also motivated to make the international dimension of research and knowledge production a primary rationale for the internationalization of higher education (Knight, 2008). However, in meeting this aim, policymakers will need to address multiple issues concerning diversity, quality assurance, public-private funding, and the relationship and balance between cooperation and competition (Van der Wende, 2001).

World University Ranking System

In addition to government policy, universities and international students are also impacted by prestige rankings, which are an important factor used by international students when choosing a university. National, regional, and global university rankings are driving the agendas of institutional leaders and national governments more than ever (de Wit & Altbach, 2021). If a university intends to attract more international students, maintaining its place among the most renowned universities in the world is crucial. Universities frequently establish policies and strategic priorities based on these ranking systems, and the emphasis on rankings has become an important part of the global context of higher education. Global ranking scores are calculated based on indicators and weights. To improve their ranking scores, universities may focus on performance specifically in those areas that are measured.

In this section, two well-known international university ranking systems are described and briefly discussed. The first is the Shanghai Jiao Tong Academic Ranking of World Universities (ARWU), and the second is the Times Higher Education Supplement (THES) World University Ranking.

ARWU was created by Shanghai Jiao Tong University in 2003. As shown in Table 1, the ARWU ranking system includes six indicators among four dimensions (Shanghai Jiao Tong University, 2014).

Table 1

ARWU Ranking System Indicators

Dimension	Indicator
Education Quality (10%)	The number of alumni who have won Nobel Prizes and Fields Medals (10%).
Faculty Quality (40%)	Nobel Prizes and Fields Medals granted to faculty members (20%).
	HiCi, a parameter related to highly cited researchers in 21 subject categories (20%).
Research Output (40%)	Papers published in Nature and Science (20%).
	Papers published in those indexed in SCI and SSCI (20%).
The per capita Performance (10%)	The per capita performance of an institution (10%).

ARWU is highly research oriented. To improve their scores on this ranking, universities must put effort into supporting research and hiring top talent. Although these efforts may serve to attract more international students by improving rankings, they are unlikely to improve the lives and social circumstances of these students.

THES was established by mass media in 2004. It has 13 performance indicators grouped into five areas (Thomson Reuters, 2015). These indicators and their relative weightings are summarized in Table 2.

Table 2

THES Ranking System Indicators

Areas	Indicators

Teaching (the learning environment): 30%	Reputation survey: 15% Staff-to-student ratio: 4.5% Doctorate-to-bachelor's ratio: 2.25% Doctorates-awarded-to-academic-staff ratio: 6% Institutional income: 2.25%
Research (volume, income and reputation): 30%	Reputation survey: 18% Research income: 6% Research productivity: 6%
Citations (research influence): 30%	Citations (research influence): 30%
International outlook (staff, students, research): 7.5%	Proportion of international students: 2.5% Proportion of international staff: 2.5% International collaboration: 2.5%
Industry income (knowledge transfer): 2.5%	Industry income (knowledge transfer): 2.5%

Compared to ARWU, THES has more potential impacts on internationalization, international students' experience, and international collaboration. It includes a reputation survey, student-to-staff ratio, proportion of international students, staff, and international collaboration. It encourages universities to increase both their international student and staff population. Moreover, a reputation survey may encourage universities to improve students' experiences in general.

National Contexts in Major Host Countries

The United States, the United Kingdom, Australia, and Canada receive large numbers of international students. As the top host country of international students in the world, the USA received 19% of the world's international students in higher education in 2013, followed by the UK with 10% and Australia with 6% (OECD, 2015). Although the USA is the most popular global destination for international students, international students comprise only 4% of the

entire student population, almost three times lower than in Canada and six times lower than in Australia (Sá & Sabzalieva, 2018).

Whereas these major English-speaking host countries recruit international students largely in order to maintain short-term and long-term economic growth, policy decisions are affected by a complex set of economic and political factors that operate at the national and international levels. Furthermore, policies related to international students have become increasingly connected with migration policy. As countries compete for the top talent and attempt to keep pace with technological developments in key economic sectors, governments have realized the importance of international students gaining work experience through employment opportunities during and after their university programs. How these broader trends play out is also affected by specific national contexts. The following sections present some key contextual factors that influence policies related to international students in the United States, the United Kingdom, Australia, and Canada.

United States of America

In the USA, international student policy is highly politicized and strongly connected to national security in addition to economic concerns. This situation is partly due to the terrorist attacks of September 11, 2001, and the subsequent introduction of the Patriot Act later that year (Haddal, 2007; Lee et al., 2006), which positioned international students as potentially "dangerous aliens" (Marginson, 2011). As a result, security concerns came to outweigh concerns about staying competitive in the global market and strongly impacted international student policy and the number of international students (Haddal, 2007).

However, following the Global Financial Crisis in 2008, the intake of international students at universities in the USA has increased in the second decade of the 21st century

(Ekanayake, & Jackling, 2014). The number of international students in the US grew in 2009–10 by 3 percent, mainly because of a 30 percent growth in Chinese students (Gribble & Blackmore, 2012). The internationalization of higher education was seen as an opportunity to help the US recover from the financial crisis by increasing revenue (Sá & Sabzalieva, 2018). In 2014, international students contributed almost $27 billion to the US economy as compared to $24 billion in 2013 (Ortiz et al., 2015).

Proposed legislation to make it even easier and more straightforward for international students to apply to come or to remain in the USA has failed due to the politicization of the issue and political disagreement between the two major political parties (Sá & Sabzalieva, 2018). However, one exception has been for students studying in the fields of Science, Technology, Engineering, or Mathematics (STEM). The Optional Practical Training (OPT or post-study work experience) program assists graduates to move into work, and a new federal government rule came into effect in 2016 that increases OPT for STEM graduates by 24 months to a total of 3 years (Robbins, 2016). With OPT, international graduates may look for a potential employer to sponsor an H-1B visa which allows international students to be temporarily employed in specialty occupations. However, before the September 11 attacks, H-1B workers who applied for permanent residency had been allowed to stay indefinitely until their immigration application was processed (Gribble & Blackmore, 2012). Given the constant disputes between the two main political parties, it seems that international student policy in the USA may remain politicized and closely connected to national security and economic concerns. With the U.S. government unwilling or unable to make any clear strategic plan to facilitate international student recruitment, there may be opportunities for other host countries to benefit in the competition to increase international student numbers.

The United Kingdom

The population of international students in the UK has increased significantly over the last few decades, from 116,840 in 1997–1998 to 312,300 in 2014–2015 (HESA, 1998, 2016), or one in eight students (HESA, 2016). In 1999, Tony Blair launched the Prime Minister's Initiative (PMI) to recruit more international students. This program, which included changes to visas, scholarships, and marketing (Blair, 1999; British Council, 2003), was the first effort to make a coherent policy on international students in the UK. Then in 2006, the Initiative for International Education was launched as the second stage of the PMI, which revised the focus from increasing the numbers of international students to enhancing international student experiences, creating partnerships and increasing transnational education (Blair, 2006).

Because of the global financial crisis in 2008, economic difficulties in the UK led to tremendous uncertainty in the UK Higher Education sector (Sá & Sabzalieva, 2018). After the election in 2010, the government changed the immigration policy, which affected international students by discontinuing the 2-year post-study work visa in 2012. These visas had previously allowed international students from outside of the European Union (EU) to seek employment in the UK after graduating. Following the change, international students who wanted to work in the UK after graduation needed to find "employment sponsorship". Employers had to be centrally registered as accepting overseas workers, and they had to certify that no suitable candidate could be found within the EU. Furthermore, positions had to match the graduate's skill level with a minimum salary of £20,000 a year, and only 1,500 such visas were to be released each month (Lomer, 2017). Coupled with other restrictions, such as the maximum time limit that students could hold student visas, the number of courses that could be taken in the UK, and working

rights during and after studies, the result was “a sharp fall in migration from non-EU countries between 2011 and 2013” (Thompson, 2015, p. 44).

In 2013, the government released the International Education Strategy (IES), which highlights the value of international students and claims to value the presence of students for the “massive contribution” they make economically, educationally and culturally to the UK (BIS, 2013). Nevertheless, the work after graduation policy barely changed. International graduates still needed a job offer from a registered employer to apply for a temporary work visa. Currently, international students who have completed a Ph.D. will have a 12-month post-study visa and the 2018 immigration White Paper indicates that all students can benefit from 6 months’ post-student leave (Kennedy, 2018).

Although, the government of the UK seems to be aware of the educational, cultural, and economic contributions that international students make, immigration policies affecting international students have tightened up since 2010 because of economic challenges and the resulting intention to reduce the number of immigrants. These events illustrate how international student policy is strongly connected to economic concerns. It is also a reflection of UK public opinion, which is “favourable towards international students but increasingly negative towards immigration in general” (Sá & Sabzalieva, 2018, p. 250). Brexit and the rise of protectionism since 2016 have further increased the uncertainty surrounding international student policy in the UK.

Australia

International students are seen as a valuable resource for the Australian economy and in Australia, international students provide about 15% of all income for the national universities (Douglass & Edelstein, 2010). International education is Australia’s third-largest export

contributing US$ 12 billion to the Australian economy in 2008 (Adams et al., 2011, p. 114). Australia is also recognized as a leader in international student recruitment (Adams et al., 2012). As in other countries, however, the government of Australia tightened up its international student policy following the financial crisis in 2008. It continues to adjust its policies promptly and actively in response to changing conditions.

A report from the Parliament of Australia (Koleth, 2010) shows that from 1997 to 2010, a complex nexus between the international student program and the skilled migration program was fostered. By 2007, Australia accounted for 11% of the international student market and had seen a three-fold increase in student numbers from 1997 to 2007 (Markus et al., 2009). The push to attract international students has been part of the government's response to changing global economic conditions, migratory trends, and economic growth challenges, such as shortages of skilled workers and an ageing population (Koleth, 2010). The recruitment of international students is seen as crucial for Australia to remain competitive in the international environment, and international students not only inject significant amounts of money into the Australian economy, but also help meet Australia's labour needs (Koleth, 2010). Consequently, the government encourages successful international students with skills in demand to make the transition from temporary to permanent settlement through the skilled migration program (Koleth, 2010).

However, from approximately 2005 onwards, the nexus between the international student program and the skilled migration program caused unexpected problems, including,

> a concentration of overseas students in the vocational education sector in the pursuit of permanent residency; the failure of some former overseas students to achieve

> employment outcomes that were commensurate with their qualifications; and failure to obtain skill levels that would meet Australia's skill needs. (Koleth, 2010, p. 5)

Furthermore, as in other counties, the 2008 economic crisis had a major impact on immigration policies that affect international students. With the stated objective of protecting local jobs, the Australian government responded to the global recession by announcing a review of the Migration Program that would be moved to a "demand-driven" model with a focus on delivering the skills most needed in the economy (Evans, 2010). To reflect the policy focus shift, a new Critical Skills List (CSL) was introduced, which gave chief priority to employer-sponsored visas. The CSL was limited to professional fields in health, IT, engineering and accounting, and abandoned most of the trade occupations that had driven the growth of the vocational education sector. In February 2010, significant reforms to the skilled migration program were introduced, which explicitly called for the detachment of international student visas and migration outcomes and made permanent migration subject to the attainment of long-term employment (Evans, 2010).

As a result, in March 2009, Australia's skilled migration program was reduced for the first time in 10 years and international student visa applications also declined (Sainsbury & Healy, 2010) due to factors including policy uncertainty, currency rates, and adverse publicity over student safety (Koleth, 2010). The decline has adversely impacted the English language, vocational education and training, and school sectors (Healy, 2010). It raised concerns that this could have devastating consequences for Australia's international student education industry; therefore, attempts to decouple international students and migration programs need to be cautiously managed (Healy & Thomsett, 2010).

In response to growing alarm among universities and colleges at the collapsing number of applications from foreign students (Das & Collins, 2010; Maslen, 2011), for instance, an overall decline of 10.8% in full-fee international accounting students' enrolments in 2012 in Australia (Gribble & Blackmore, 2012), the student visa process was simplified to make student visas for university study cheaper, easier, and faster to obtain (Gribble & Blackmore, 2012). From July 2012, international students can work and acquire work experience in Australia via a post-degree work visa: a 2-year visa work for an undergraduate degree, a 3-year work visa for a master's degree and a 4-year work visa for a Ph.D., but without a direct route to permanent residency (Gribble & Blackmore, 2012).

Furthermore, in 2013, the Chaney Report or "Australia—Educating Globally" was produced by the International Education Advisory Council, which urges the government to improve government coordination of international education and develop a national strategy in this area (Commonwealth of Australia, 2013). Therefore, a 10-year strategy was published in 2016 (Australian Government, 2016), proposing a collaboration of the Department of Education and Training, Austrade and the Department of Foreign Affairs and Trade. This national strategy is the first cross-government plan for the education sector, and it indicates steps towards a more coordinated policy environment by establishing a permanent cross-sectoral Council for International Education including broad representation of a national student group, universities, the Universities Australia sectoral bodies and private sector groups (Sá & Sabzalieva, 2018).

Although international student policy is also influenced by the economic situation, tightening up after 2008 and decoupling study permits and permanent residence, in contrast to the US and the UK, the government of Australia is more willing to examine its international

student policy, adjust rules, experiment with new strategies on international education, and make moves towards a more coordinated policy environment.

Canada

In contrast to Australia, which has long recognized the value of retaining international students (Adams et al., 2012), Canada started at a lower point but has grown rapidly (Sá & Sabzalieva, 2018). In 2000/2001, 38,511 international students were enrolled compared to 150,679 in Australia, however, the number increased by over 200% between 2000/2001 and 2013/2014 (Sá & Sabzalieva, 2018).

Since 2005, Canada's immigration policy regarding international students has changed to recruit more international students to Canada and encourage those with local qualifications and experience in the domestic labour market to remain after graduating. From 2008, after completing their study programs, international graduates may apply for a Post-Graduation Work Permit and work in Canada for up to 3 years with no restrictions on the type of employment and no requirement for a job offer (Government of Canada, 2011). Those graduates from an eligible institution who complete 1 year of full-time work experience may be eligible for permanent residency under the Canadian Experience Class (Tachdjian, 2011). As a result, Canada has the highest stay rate among other OECD host nations. The rate of transitioning from student to resident status was 33% compared to the average of approximately 17% elsewhere, suggesting policies designed to promote the retention of international graduates into the Canadian workforce have achieved the desired outcomes (Clark, 2011).

In January 2014, the Canadian federal government announced its first-ever international education (IE) strategy as a "blueprint to attract talent to Canada and prepare our country for the 21st century" (Government of Canada, 2014). It shows an ambitious agenda to further increase

the number of international students studying in Canada to over 450,000 by 2022 and make the country a "21st-century leader in international education in order to attract top talent and prepare our citizens for the global marketplace" (Government of Canada, 2014, p. 1).

In 2015, the Conservative government made a politically driven shift by introducing the Express Entry immigration selection system which shifts economic immigration from the supply side to demand-driven, with a stronger role for employers (Chiose, 2015). In early 2016, the new Liberal government committed to a review of Express Entry to reduce barriers to permanent residency for international students (ICEF Monitor, 2016; Zilio & Chiose, 2016), and Immigration Minister John McCallum called international students "ideal immigrants" to reaffirm the government's commitment to supporting the retention of international students as permanent residents in Canada (Zilio & Chiose, 2016), indicating that "a clear, positive message of welcome to international students will make more of a difference to their choices than a process that may ultimately favour them but is too cumbersome to easily understand" (Macdonald, 2016, para. 17).

As ambitious and committed as the government might be, the fragmented nature of the Canadian federal and provincial policy system has been arguably less effective in providing or explaining clear implementation methods for international student policy (Sá & Sabzalieva, 2018). In Canada, higher education is strictly a provincial responsibility and Canada is the only OECD country without a national ministry of education with institutional autonomy held in high regard. On the one hand, educational policy matters are distributed over several federal departments: Global Affairs Canada (GAC) and Immigration Refugees and Citizenship Canada (IRCC), two key policy actors among other departments (Trilokekar & El Masri, 2016). However, universities mostly refer to IRCC in referencing "the federal government" probably

because IRCC sets regulations that govern immigration, which impacts institutional operations more directly (Trilokekar & El Masri, 2016).

On the other hand, international education policy "falls between the jurisdictional divides of the federal (foreign policy) and provincial (education) governments, with institutions caught between their often contentious and contradictory policy orientations" (Trilokekar & El Masri, 2016, p. 541). For example, as the most popular provincial destination for international students, Ontario used to allow Ontario-trained international Master and Ph.D. graduates to be fast-tracked for permanent residence. However, just 2 months after the federal government announced its first-ever international education strategy, the provincial government in Ontario announced that it would temporarily stop accepting Provincial Nominee Program (PNP) applications from graduates with an Ontarian Master's or doctoral degree owing to a very large backlog (Chiose, 2015).

It seems evident that the government of Canada has sent a clear message not only to recruit more international students but also to retain them. Moreover, both right and left-leaning governments have supported such immigration routes as a way of meeting the country's labour needs (Sá & Sabzalieva, 2018). Nevertheless, "the absence of a federal ministry of education results in IE (international education) as a policy arena split across various federal and provincial departments with a lack of clear national leadership" (Trilokekar & El Masri, 2016, p. 542). Collaboration among diverse domestic policy sectors such as education, labor, industry, trade, and immigration is essential in the strategic planning (Knight, 2014). Whether the government can achieve its aspiration depends on whether it can take steps to create a cross-department board, improve communication between provincial and federal policymakers, involve

institutions and broader Canadian society, and remain committed in the form of resources, operational activities, and programs.

Local University Context

This section describes aspects of the local university context at the University of Alberta, where this study was conducted, by drawing information from key university documents: the Institutional Strategic Plan, the International Strategic Plan, and the Comprehensive Institutional Plans. These documents reflect how the University of Alberta has reacted to recent trends in the internationalization of higher education. Furthermore, they form part of the ecological context for this study. An Ecological Perspective emphasizes the importance of environments and the interactions between the ecology and participants. These documents shaped the environment in which personal experiences took place, thereby affecting the development of the participants' social networks.

Institutional Strategic Plan (2016)

For the Public Good was the institutional strategic plan of the University of Alberta from 2016 to 2021, the main period of data collection and analysis for this study. The document begins by stating the vision, mission, and values of the university. One of the stated values is particularly relevant to internationalization: "(w)e value diversity, inclusivity, and equity across and among our people, campuses, and disciplines" (University of Alberta, 2016, p. 4). The document then presents the five strategic goals, which are summarized by the words *build, experience, excel, engage*, and *sustain*. Each strategic goal is followed by corresponding objectives as well as strategies for achieving the objectives.

Among the strategic goals, *build* provides one of the most direct reflections of internationalization. This strategic goal is to "BUILD a diverse, inclusive community of

exceptional students, faculty, and staff from Alberta, Canada, and the world" (University of Alberta, 2016, p. 5). Under the objective of "Build a diverse, inclusive community of exceptional undergraduate and graduate students from Edmonton, Alberta, Canada, and the world," one strategy is to "(o)ptimize our international recruiting strategies to attract well-qualified international students from regions of strategic importance and enhance services and programs to ensure their academic success and integration into the activities of the university" (University of Alberta, 2016, p. 8). For the objective of faculty building, one of the identified strategies is to "(a)ttract and retain a diverse complement of faculty and post-doctoral fellows from around the world" (University of Alberta, 2016, p. 9). Under the objective of "Build and strengthen trust, connection, and a sense of belonging among all members of the university community through a focus on shared values" (University of Alberta, 2016, p. 10), the strategy "celebrate and support diversity and inclusivity" is identified.

Also highly relevant to internationalization is the strategic goal of "Experience diverse and rewarding learning opportunities" (University of Alberta, 2016, p. 14). Strategies identified for this strategic goal include "Increase students' experiential learning through mutually beneficial engagement with community, industry, professional, and government organizations locally, nationally, and internationally" and "Develop global competency in our graduates through access to short- and long-term outbound international experiences" (University of Alberta, 2016, p. 14). Thus, internationalization is reflected in the UA strategic plan primarily with respect to building a diverse community and creating a diverse learning experience.

International Strategic Plan for the University of Alberta

In May 2019, the University of Alberta published its first International Strategic Plan to guide the institution to facilitate its international endeavours in a coordinated manner (UAI,

2019). The plan follows the same structure as the Institutional Strategic Plan and is organized around the same five strategic goals: *Build, Experience, Excel, Engage* and *Sustain*. Each strategic goal is accompanied by two to three objectives, as well as three to five strategies for achieving each objective.

The first strategic goal identified in the International Strategic Plan is to build a diverse and inclusive community. In relation to this goal, the first objective is to build a diverse student community through balancing the composition of the international student population, collaborating with cities and the Governments of Alberta and Canada, growing the Sponsored Student Program, and enhancing financial supports (UAI, 2019). The second objective focuses on faculty members and scholars with various backgrounds, and the third objective is to build a cross-institutional strategy (UAI, 2019). The goal of Build, aligned with the Institutional Strategic Plan, emphasizes the importance of diversity in the community. A diverse international student community may help students to communicate more with other students from other ethnic groups if given opportunities. Furthermore, faculty members with international experience and backgrounds may have an enhanced understanding of international graduate students' needs, which could result in better student experiences.

The second goal of the university's International Strategic Plan is to "Experience diverse and rewarding learning opportunities that inspire us, nurture our talents, expand our knowledge and skills, and enable our success" (UAI, 2019, p. 5). This aim is highly relevant to international students' experiences. In relation to this strategic goal, the first objective is to "ensure inclusion of international students into the campus community"; support their academic, personal, and professional pursuits; cultivate lasting relationships with their Canadian peers, the university, the cities, the province, and Canada (UAI, 2019, p. 5). To attain this objective, the university intends

to enhance services and programs to support international students' academic goals; provide opportunities for them to learn about the history of Indigenous peoples; coordinate internal and external stakeholders to support the international student community; "increase intercultural learning opportunities for faculty, staff, and students and ensure active participation of international students in such learning"; engage international students in career development activities (UAI, 2019, p. 6). The second objective is to provide all students, domestic and international, with international dimensions in their learning experiences to educate them as global citizens via various programs (work abroad programs, joint or dual degree programs, summer schools, etc.), and to provide financial support for international learning, credit transfer, and certificates in global learning (UAI, 2019).

The third goal and fourth strategic goals of the International Strategic Plan are less directly relevant for this study and will not be discussed in detail here. Excel focuses on international collaboration in research and innovation as well as partnerships with other institutions. Engage is concerned with the university's role in a global community, such as through international organizations and projects.

The fifth goal is Sustain, which explains how to implement the international agenda and how to deliver the international programs and projects (UAI, 2019). The first objective of Sustain is to clarify "roles and responsibilities for stakeholders in designing and implementing the international agenda" (UAI, 2019, p. 11). This objective emphasizes the importance of coordination and clarifies that Faculties have a leading role in initiatives while the University of Alberta International Office (UAI) provides services and programs to support those initiatives. The strategies identified to achieve this objective are to ensure university-wide communication,

"develop and maintain governance structures", and "form a dynamic, creative, and efficient international ecosystem" (UAI, 2019, p. 11).

The final section of the plan, Oversight and Accountability, explains that UAI will keep "international activities closely connected to core institutional targets" and "ensure ongoing involvement of all relevant stakeholders" (UAI, 2019, p. 13). It will also serve as "the backbone for all the planning, implementation, and evaluation of the International Strategic Plan" (UAI, 2019, p. 13). Furthermore, UAI will be drawn on to support the priorities and activities that are identified by the international ecosystem (UAI, 2019).

Regarding the delivery of international programs and projects, UAI commits to "accountability and ongoing evaluation" in international activities. To deliver programs and projects effectively, efficiently, and sustainably, UAI will develop and enhance structural tools and processes; develop and ensure financial resources to support international activities; and create and "disseminate information on opportunities for professional development" (UAI, 2019, p. 12). UAI's commitments to accountability and ongoing evaluation are aligned with the view that international programs and projects need to be constantly evaluated and updated, especially when they do not yet satisfy students' needs (Healey, 2017). Such monitoring and evaluation, if implemented effectively, can affect the international student ecology significantly.

The aims stated in the International Strategic Plan suggest that the university has realized that international students require not only academic support but also personal/social support. The university states its intention to help students "build lifelong friendships and networks" and "gain independence and personal development" (UAI, 2019, p. 5). However, there are no specific strategies that clearly indicate how to achieve the objective of building friendships and networks.

The university shows a willingness to broaden the support of the international student community and coordinate internal and external stakeholders, which may help international students to expand their social circles. The diverse, inclusive community that the university intends to build may help international students to interact with the broader society beyond the university. This, in turn, can help students broaden their understanding of Canada and increase their opportunities to build an intercultural social network. The university also plans to enhance intercultural learning for faculty and staff, and it recognizes the crucial role that faculty and staff play in the international student experience. Moreover, international dimensions could also be brought to domestic students through education and work abroad programs or certificates in global learning. Career development of international students has also been emphasized in this plan, which echoes the trend that major English-speaking destination countries have focused their interest on students who can transition to local workplaces.

Although it is a positive sign that the university intends to involve all community members in its internationalization plan (i.e., international and domestic students, undergraduate and graduate students, faculty, staff, and internal and external stakeholders) and improve students' experiences, some of the strategies may require further specification and detail to be fully useful. For example, strategies related to intercultural learning opportunities does not indicate what kinds of intercultural learning opportunities faculty, staff or students might have on-campus or how to ensure students participate in such opportunities.

The University of Alberta's International Strategic Plan seeks to diversify the international student community by recruiting students from different countries, improve the international student experience by increasing international learning and career development opportunities for all community members, and improve the administrative structure of the

university to implement the agenda effectively and deliver projects and programs effectively. However, under the shadow of the COVID-19 pandemic and significant budget cuts, the university faces many challenges in fully implementing the aims stated in the plan. Nonetheless, the International Strategic Plan represents significant progress in the university's internationalization process. It shows the university's commitment to making internationalization one of its priorities and its willingness to work toward the identified goals.

Comprehensive Institutional Plan (2011–2019)

Each year, the University of Alberta publishes a Comprehensive Institutional Plan (CIP) to submit to the government, the main funder of the university. Comparing the nine Comprehensive Institutional Plans published between 2011 and 2019 can help identify changes in how the university positions international students and internationalization in its strategic plan and provide a historical view of international students' ecosystem on an institutional level.

In the 2011 Comprehensive Institutional Plan, internationalization did not appear as an independent section of the document. However, the term "internationalization" was used 10 times, mainly contextualized with "science", "research", and "teaching activities" as a research theme across several sections, including research, society, and culture. The term "international student(s)" appeared 41 times, primarily in relation to the themes of student recruitment and global competition. It was also mentioned, though less frequently, in relation to student support programs, scholarships, and residence, three times under the student support program, and twice in relation to scholarships and in relation to residence.

The 2011 CIP noted that "the recruitment of international students is important to addressing the risks to Alberta's development of human capital needed for the future" (University of Alberta, 2011, p. 24), adding that, "Alberta lags behind other regions and nations

in international student recruitment" (University of Alberta, 2011, p. 24). The CIP noted that Alberta had 6,900 international students in 2008, compared to British Columbia which had almost three times that number at 18,500 (University of Alberta, 2011). It aimed, therefore, to set strategies in place to increase international student enrolment to 15% of the student population.

In the 2012 CIP, there was a decrease in the use of the term "international student(s)" (10 times), but no major change regarding usage frequency of "internationalization". The term "internationalization" was mainly used under the heading Research Themes and Goals. In addition, some specific measures mentioned in relation to internationalization included increasing international research investment from foreign sources, foreign postdoctoral fellows and graduate students, and formal and active mobility programs for researchers and students.

A major change occurred in the 2013 CIP where internationalization appeared as a separate section of the document. Moreover, for the first time, internationalization was recognized as "an institutional objective, an institutional strategy, and an institutional outcome" (University of Alberta, 2013, p. 57). The document described aims to foster global engagement and advance the academic enterprise and objectives of the university. It highlighted programs developed with foreign partners and programs that prepare students for international opportunities. The internationalization strategy was regarded as "multi-faceted and permeates the entire academic enterprise" including international student recruitment; study abroad and international internship opportunities for domestic students; multi-levelled partnerships with top-tier international partners; and leadership participation in major international initiatives that seek to solve pressing global issues (University of Alberta, 2013, p. 38). More specifically, the university intended to selectively maintain and expand associations with other institutions; develop initiatives in joint projects, student mobility, undergraduate and graduate student

recruitment, and international funding; and pursue global impact opportunities through funding competitions. Meanwhile, a 1% increase in general tuition fees and graduate student international differential fees and an effective 5% increase in undergraduate international student tuition fees were part of the Budget Assumptions section.

The Internationalization sections in the 2014 and 2015 CIPs closely mirrored the one from 2013. The only major update was that the university added to the internationalization strategies the aims to "invest resources to ensure conversion of international applicants to international registrations, and the subsequent academic success of international students" and "develop new credentials and programs that provide . . . students with the understanding and skills related to success in a globalized society" (University of Alberta, 2014, p. 81). Additionally, two programs to support international students and connect international students with entrepreneurship opportunities were initiated.

The 2016 CIP showed significant changes that coincided with the publication of the University's new institutional strategic plan. Internationalization strategies were divided into three sections: global engagement (increase experiential, internship, and co-op experiences in international settings and shorter-duration international experiences); research (establish new partnerships, strengthen existing strategic international partnerships, foster new research projects, and increase international funding); and diversity (diversify the international student body, create joint degree programs outside of Canada, and attract excellent students).

The 2017 CIP initiated an International Diversity Plan for international student recruitment to ensure diversity among students (maintaining a 15% overall proportion) and to offer excellent learning opportunities to international students. It also announced an internal leadership structure, the President's Committee on International Strategy, to guide strategic

engagement on international initiatives in conjunction with the implementation of the university's strategic plan and ensure that the university's approach to global engagement continued to reflect a forward-looking, system-wide perspective.

In the 2018 CIP, the university emphasized its commitment to internationalization as a comprehensive research-intensive university and highlighted the role of the international office and the commitment of administrative units, including the President's Committee on International Strategy and the Provost's Committee on International Initiatives. These integrated committees, working with the international office, ensure that the university has a coordinated, effective set of initiatives with measurable goals and outcomes that benefit all communities.

In the 2019 CIP, the university expressed the intent to enhance cost transparency for international students and explicitly stated its priority to diversify the countries of origin of international students. Compared to those from 2016 to 2018, the 2019 CIP showed more alignment with the institutional plan and the international strategic plan and provided more specific strategic priorities. Some new initiatives were to "ensure integration of international students into the campus community; support them in the pursuit of their academic, personal, and professional goals; facilitate lasting relationships for international students with their Canadian peers, the university", the city, the province, and Canada (University of Alberta, 2019, p. 63).

The evolution of the CIP reflects three stages: the realization of the importance of internationalization; the establishment of an internationalization strategy; and the upgrading of internationalization. From 2011 to 2012, the university did not have a coherent strategic plan for internationalization, even if it recognized the importance of international student recruitment. From 2013 to 2015, internationalization became an institutional strategy accompanied by an increase in the international student population and concurrent tuition increases. Meanwhile, the

university also recognized the need for investment in international enrolment and support for the academic success of international students. Since the publication of the 2016 institutional strategic plan, the university has continued to modify its internationalization strategy. While maintaining the proportion of international students, the university has placed greater emphasis on the importance of diversifying the origin countries of international students, realizing the risk of relying on a single market. Moreover, it has begun to centralize the management of internationalization by indicating the role of the international office and involving high-ranking administrators in developing internationalization strategies. Additional aspects of the upgrading of internationalization at the University of Alberta include the publication of the first-ever international strategic plan in 2019 and greater recognition of the importance of integrating international students into the campus community and expanding support services beyond the focus on academic success. There has been a trend toward a more direct acknowledgement of personal needs and experiences, as well as the value of forming relationships both within the university and beyond.

Global Trends and Local Behaviours—Macro and Chrono Systems

The patterning of environmental events and transitions over the time is what makes up the ecological system. As explained in Chapter Two, the chronosystem is the outermost system, which contains all other systems within it. This means that a chronosystem is the result of the interaction of the various macrosystems over a period of time, while the macrosystems themselves are composed of various exosystems, mesosystems, and microsystems. The macrosystem evolves across time and from generation to generation. In this study, the macrosystems are mainly represented by global trends in the internationalization of higher

education, and these trends are reflected in the local University of Alberta context. Reflections of these trends can be found in the university's strategic plans and reports.

Like Canada as a whole, the University of Alberta also had a late start in the area of international education. It was only in the Comprehensive Institutional Plan in 2011 that the university articulated a plan to address its low international student enrollment compared to its national and international peers. Since then, the university has steadily increased international student recruitment, as well as differential fees.

Governments and universities have also recognized the importance of centralizing and professionalizing internationalization strategies and collaborating across departments. Canada published its international education strategy in 2014, and Australia produced a 10-year national strategy plan for international education that proposes collaboration between different government departments in 2016. Within the local University of Alberta context, the university published its first International Strategic Plan in 2019, and this document also emphasized the importance of involving various stakeholders across the university and beyond.

Another shift is that immigration policies have become more demand driven. In 2010, significant reforms to the skilled migration program in Australia were introduced, and access to permanent migration became dependent upon the achievement of long-term employment. In 2015, Canada introduced the Express Entry immigration selection system with a stronger role for employers. At the local level, this shift in policy was reflected in the University of Alberta's international strategic plan (UAI, 2019), which emphasized the importance of students' professional development.

Ripples in international education are usually started by broad trends, such as government initiatives or environmental events like the financial crisis in 2008. The actions of one

government may affect other governments to take similar actions, such as publishing similar strategic plans or changing policies. This process can take a number of years to occur. Subsequently, universities react to the actions of governments. Changes to how governments fund higher education or changes to pathways for international students to obtain employment or permanent residency, for example, can significantly affect how universities approach internationalization. Table 3 summarises some global trends in international higher education alongside some local responses from the University of Alberta context.

Table 3

Global Trends and UA Behaviours

Year	Global Trends	U of A Behaviours
2007 and Earlier	➢The United Kingdom is the first country that initiated a national strategy of international education (1999). ➢In 2006, the Initiative for International Education was launched as the second stage of the PMI ➢Immigration policy regarding international students was changed to recruit more IS in Canada in 2005. ➢International students increased three-fold in Australia until 2007	
2008	**Financial Crisis** **After completing their study programs, IS may apply for a Post-Graduation work permit for up to 3 years without restrictions in Canada**	
2009	After 2008 and the election, UK's international student policy took a sharp shift.	
2010	Australia government tightened the migration and international student policy in 2009/10. Significant reforms to the skilled migration program were introduced, and the access to permanent	

Year	Global Trends	U of A Behaviours
	migration depends upon the achievement of long-term employment	
2011		Realizes its low international student enrollment compared to its international and national peers
2012	➢Australia's policy was promptly adjusted in 2012 to increase IS. ➢The 2-year post-study work visa was discontinued in UK.	No internationalization strategy
2013	The international Education Strategy was published in UK.	Steadily increasing the international student recruitment and differential fees
2014	Canada published its international education strategy in 2014.	Stable internationalization strategy
2015	Express/entry immigration selection system was introduced with a stronger role for employers in Canada	
2016	➢Australia produced a 10-year national strategy plan for international education that proposes a collaboration between different government departments. ➢OPT for STMP students increased in the US.	Centralize and professionalize the internationalization strategy
2017		Realizing the importance of diversity and integration
2018	Ph. D. students have 12-month post-study leave in UK	
2019		Published its first International Strategic Plan

Summary

Internationalization in Higher Education offers opportunities for students and scholars to connect with universities around the world and often serves as a pathway to immigration. It also

enhances the abilities of some institutions and countries to attract a highly talented and skilled population in order to gain enormous economic benefits. Moreover, it provides tools for institutions and countries to collaborate internationally, advance research and innovations, and solve global issues together. However, it may also exacerbate the inequality between rich and poor students, institutions and countries. Other risks associated with internationalization include the growing commercialization of higher education, challenges to traditional education values, decreases in education quality, and the threat of a brain drain.

Federal governments of the four major English-speaking host countries mainly affect international students through immigration policies that impact international student recruitment and retention. Immigration policymakers are influenced by a range of economic and political factors at both the international and domestic levels. These factors include financial crises, migration trends, and even terrorist attacks. Although all governments recognize the economic value of international students, their policies towards international students vary considerably. Over the past 20 years, all four countries have tended to recruit more international students; however, some of them have made it more challenging, at times, for international students to stay after they graduate. Pathways for international students to obtain temporary work visas or permanent residency are often demand driven and contingent upon finding a job.

Of the four countries, the US perhaps has the most unique circumstance. It has the strongest economy and the most renowned universities, and it has been the most appealing destination for international students over the last 2 decades. It also does not rely as much as the other three countries on the revenue from international students. Consequently, domestic political factors, including national security, play a key role, leading to a highly politicized situation. In the other countries, the main aim is to find a balance between economy and politics.

On the one hand, revenue from international students is crucial to universities where public funding has been reduced, and international graduates can contribute to long-term economic growth as well. On the other hand, a trend of global conservatism and weak economic growth may cause anti-immigrant sentiments that also affect international students, as in the UK and Australia. Factors such as these have led to the current demand-driven policies that seek to recruit as many international students as possible in order to provide revenue, while also tightening immigration policies and restricting post-graduation work opportunities.

Universities, occupying a level between governments and students, need to interpret and align with national policies and strategies, while also considering their institutional reputation, teaching quality, student experience, and core values. Some universities have endeavoured to place internationalization as one of their priorities and adjust their strategic plans accordingly. According to Universities Canada (2014), 96% of Canadian universities include internationalization in their strategic planning and more than 80% identify it as one of their top five planning priorities, up 5% from 2006. To understand how broader ecological trends affect the social lives of international students including the participants of this study, it is also important to examine local contexts and responses to broader trends. In this chapter, I have described the local context of the University of Alberta by drawing information from key university documents. In Chapter 5, I will introduce the participants of this study and describe the research approach and method. Subsequently, beginning in Chapter 6, I will discuss these participants' experiences of building social networks within an ecological context encompasses broad factors such as global trends as well as local responses and behaviours within a specific university.

Chapter Five: Methodology

In this chapter, I describe the Qualitative Case Study method used for this study. I also describe how the study was conducted, by providing a brief introduction to the participants, the research site, the sources of data, and how the data were collected and analyzed. Finally, I clarify the role of the researcher and discuss some ethical considerations.

Qualitative Case Study as a Research Methodology

Qualitative inquiry is a research methodology with a long tradition that has "achieved status and visibility in the social sciences and helping professions" (Merriam, 2002, p. 3). According to Patton (1990), qualitative research is:

> An effort to understand situations in their uniqueness as part of a particular context and the interactions there. This understanding is an end in itself so that it is not attempting to predict what may happen in the future necessarily, but to understand the nature of that setting--- what it means for participants to be in that setting, what their lives are like, what's going on for them, what their meanings are, what the world looks like in that particular setting . . .The analysis strives for depth of understanding. (p. 1)

Since the purpose of this study is to understand Chinese international students' experiences in social network building in a specific setting - a Canadian university - and to investigate the nature of the setting ecologically, a qualitative research approach is clearly appropriate.

Among the various types of qualitative methods, I chose case study for this research. A case study is "an intensive description and analysis of a phenomenon or social unit such as an individual, group, institution, or community" (Merriam, 2002, p. 8). A case, as a unit of analysis, is defined as an integrated system with boundaries that can be clearly defined (Stake, 1995). In

addition to being focused on a bounded case unit, qualitative case studies also display other key traits. Case studies are particularistic (i.e., they focus on a specific event, program, or phenomenon), descriptive (i.e., a "thick description" results as the end product of the investigation), and heuristic (i.e., they provide fresh understandings of a phenomenon, via discovery, extension, or confirmation of what is already known) (Merriam, 1998).

In this investigation, the rich interpretive accounts resulting from the case study approach help illuminate the participants' experiences of developing social support networks. The case study method allowed the participants to share their perceptions and experiences in a rich and descriptive way. It also allowed me, the researcher, to explore the particularities and complexities within the experiences as they were perceived and recounted by the selected international students. Hence, given the aims of this project, case study is an appropriate methodological choice.

Qualitative approaches typically involve purposeful selection of the research participants and setting (LeCompte & Preissle, 1993; Patton, 2002; Stake, 2000). The purposeful selection focuses on choosing information-rich cases whose investigation can illuminate the questions under study. Purposeful selection seeks to achieve an in-depth understanding of selected individuals and sites. With that in mind, the cases for this study were purposefully selected to explore the experiences lived by international students. The location of the study was chosen considering the profile of the university as one that attracts a large number of international students and one that strives to be actively engaged in internationalization. In the following section, I provide additional information about the research participants and the research site.

The Participants

Six graduate students from China participated in this research. Participants were limited to graduate students because undergraduate and graduate groups differ not only with respect to age, family and education background, but also with respect to values and perceptions. These differences may lead to very different experiences, which resulted in the decision to focus only on graduate students.

Participants were limited to those from mainland China because national origin is likely to influence student experiences, and international students from mainland China are an important and increasing group in Canada. Based on data from Citizenship and Immigration Canada (CIC) (2008), 36,137 foreign students from mainland China were studying in Canada in 2005, and this number accounted for 23.5% of the total foreign student population. The People's Republic of China was the No. 1 foreign student source for Canadian education in 2005 (Citizenship and Immigration Canada, 2008). By 2022, the number had increased to 128,040 (Lau, 2024).

The following sections introduce each of the participants by briefly describing their academic and personal backgrounds. Information about the participants is also summarized in Table 4

Summary of Participant Information.

Gui's Story

Gui received her undergraduate degree in hotel management from a university in China. After graduation, she went to a university in Beijing to continue her studies. Her research interest is in cross-cultural studies. Since it is popular in China to do doctoral studies abroad, Gui decided to pursue her Ph.D. study in Canada. She was interested in studying in an English-speaking

country since publishing in English has more and more become an expectation. She chose the University of Alberta due to the fit between her supervisor's work and her own research interests.

Na's Story

Before coming to Canada, Na had a bachelor's degree in environmental science and a master's degree in science education. She also had 5 years' working experience. Both she and her husband had stable jobs in Beijing, but they felt that the freshness was fading. Therefore, they were looking for a change and decided to go abroad. In preparation, Na applied to universities and her husband applied for permanent residency through a skilled worker stream. Na was admitted into a PhD program at the University of Alberta. She hoped this new adventure would help resolve her dissatisfaction with her work.

Jian's Story

Jian's story with Canada began with an exchange experience while he was an undergraduate student in Computer Science. Before that, he did not consider Canada as his destination of study, but that exchange experience impressed him. After returning to China, he applied to a master's program in Canada. He completed this program 2 years later and then started his PhD program at the University of Alberta.

Tou's Story

Tou is originally from Macau, and he did his undergraduate studies in Beijing. He came to Canada as a master's student in Psychology. After completing his master's program, he became a Ph.D. student in the same department. He chose Canada after reading about a variety of programs available in different countries, including the United States and Singapore. The program at the University of Alberta interested him the most and was a good fit with his research

interests in Social Psychology, especially in relation to immigrants' and international students' language learning and identity.

Peng's Story

After his undergraduate program, Peng worked for 5 years as a teacher and translator. Then he went back to school and started his master's program in the area of literary studies. He gained experience in teaching Chinese to international students in China. Then he started his Ph.D. program in Canada. He stated that he considers North America to be the academic centre of the world.

Bing's Story

Bing had an undergraduate degree in English education and had experience teaching English at a university in China. She completed a master's degree at the same university. Her husband received a postdoctoral position at the University of Alberta. After a year, Bing came to Canada with her son to join her husband and then started a Ph.D. program.

Table 4

Summary of Participant Information

Name	Research of Interest	Work Experience in China	Work Experience in Canada	Gender	Marital Status
Gui	Cross-cultural Studies	None	TA/RA	Female	Married (Single when arrived in Canada)
Na	Science Education	Elementary school teacher (5 years)	TA/RA	Female	Married
Jian	Computer Science	None	TA/RA	Male	Single

Name	Research of Interest	Work Experience in China	Work Experience in Canada	Gender	Marital Status
Tou	Social Psychology	None	TA/RA	Male	Single
Peng	Literary Studies	Teacher and translator (5 years)	Program Assistant (UAI)	Male	Single
Bing	English Education	University instructor	Student Advisor (UAI)	Female	Married (With kids)

Research Site

The study was conducted in a West Canadian university—the University of Alberta. Although it is a common practice to avoid naming specific research sites, I received permission from the research ethics board to identify the university by name since the Ecological Perspective makes it important to describe the context in detail. Chapter Four provides a great deal of information from university documents, including direct quotations. Therefore, it is not difficult for the readers to identify the university, and it is not entirely possible to disguise the name of the university in this study. Participants' names are disguised, and I have refrained from providing specific information that could identify them.

The University of Alberta is one of the top five universities in Canada. In Fall 2021, there were 8,216 international students at the U of A, representing 14.1% of undergraduate enrolment and 39.3% of graduate enrolment (UAI, 2023). Its "International Student Services team—at the International Centre—provides events and programming to help international students accomplish their academic and personal goals, plus share their knowledge and experiences with campus and off-campus communities" (UAI, 2023). Besides the various events and programs

provided to international students, I also chose this university because of my connections with the potential participants at this university, which was very helpful while recruiting participants.

The University of Alberta is in Edmonton, the capital city of the province of Alberta in Canada. It is located on the North Saskatchewan River and is the northernmost metropolitan area in North America. Edmonton is known for its festivals, cultural attractions, and natural beauty. Some of the most popular events include the Edmonton International Fringe Theatre Festival, the largest and oldest fringe festival in North America, the Edmonton Folk Music Festival, one of the best folk music festivals in the world, and the Edmonton Heritage Festival, a showcase of over 100 cultures and cuisines. There is a Chinatown in downtown Edmonton. It is home to a diverse community of Chinese, Vietnamese, Korean and other Asian immigrants and businesses. Edmonton Chinatown offers a variety of services, such as restaurants, grocery stores, herbal shops, bakeries and more. However, Edmonton's Chinatown has been facing a number of security issues in recent years, such as vandalism, drug trafficking, littering and violence. The community has been calling for more police presence and city support to address these problems and revitalize the area.

Data Collection

Interviews were conducted with Chinese graduate students at the University of Alberta. There were six interviews in total: one with each participant. The interviews lasted 40 to 90 minutes each. All the interviews were audio-recorded.

The interviews were conducted in either Mandarin or English, as chosen by the participants. Five participants elected to do their interview in Mandarin, and one chose to do the interview in English. The interviews conducted in Mandarin were first transcribed in Mandarin

and then translated into English as a detailed summary rather than a word-for-word translation. The interview conducted in English was transcribed in English.

Data were collected through one-on-one interviews due to privacy considerations. The interviews used a semi-structured format and were conducted in an informal, conversational manner. The locations were chosen with the participants in order to determine places familiar to participants and where they would feel conformable talking, such as in their apartment, in their office, or in a cafe. The aim was to provide a relaxing environment where the participants could openly share their experiences and thoughts.

The interview questions were designed to elicit participants' experiences of developing social networks, including the contexts of the activities they participated in, details about their social activities, perceptions of their social network, and so on. Some examples of the specific interview questions and probing questions are: Have you experienced any difficulties in adjusting to life here? What do you do in your spare time? How do you enjoy these activities? Do you usually do these things with someone else? How do you get along with your colleagues/classmates/instructors? Do you hang out with them after school time? Do you have any opportunities to talk to them after class? Do you have opportunities for making friends on campus? Do you think that your social life differs from that of other students'? If so, how does it differ? Do you have any comments on your social life? Were there any specific events that you enjoyed? How did you know about those events? What is your general impression of this university? Did you have any expectations of the university and your life here before you came? Has the university met your expectations? In what areas do you think the university can do better?

Data Analysis

Data from the interviews were analyzed using a framework of typological analysis (Hatch, 2002). First of all, I identified what topics were addressed in the data. This part of the process began at the point of developing a set of consistent guiding questions that focused on the research questions and reflected the topics of interest for the research. After collecting and preparing the interview data, I read through the transcripts several times, each time with a specific topic in mind to find and mark the sentences related to each key topic in order to highlight the relevant information. Next, I read the marked sentences again and wrote summaries that organized information and reflected the main ideas that I wished to convey and emphasize.

In the latter stages of the data analysis process, I analyzed the summarized data to locate patterns, relationships, and themes across different cases. Themes were generated by grouping codes that shared a common idea or pattern and naming them accordingly. Next, I read highlighted data and coded the summaries with identified patterns to ensure the patterns were supported by the data. I reviewed the themes by checking that they fit the data and the research questions, and that they were distinct and coherent. The verified patterns were analyzed to find out the connections between them. Themes were defined and named by writing a summary of each of them, as well as choosing a descriptive label for them. Finally, ideas were generalized as arguments and findings for the study, and specific examples were selected from the data to support the general statements.

The results of the study are presented in the form of themes in Chapter 6. I present the themes along with an analysis that compares and contrasts the experiences of the six participants. In Chapter 7, several important topics are further discussed to provide further contextualization and interpretation of the research findings.

The Role of the Researcher and Ethical Considerations

This study is inspired by my own personal experiences in Canada as an international student from China. Consequently, I am an insider to the participants' group, and I have had many experiences similar to theirs. I share their confusions, expectations, and frustrations, which provides me, as a researcher, with some advantages related to greater empathy and better understanding. However, it also means that I must be attuned to my biases as a researcher. I believe that although the participants are from similar backgrounds, they differ in their perspectives and experiences. Although I am an insider, I am also able to examine questions from different angles with the help of the participants. As a researcher and an insider of the studied group, I have access to depth of understanding; meanwhile, I am very careful to avoid interpreting the answers in favour of my perspectives.

I paid particular attention to the ethical considerations involved in conducting this study. All phases of the research were conducted following accepted standards of ethical behaviour. I ensured that participants were treated fairly and ethically in all respects in the study. Thus, I could protect the dignity and welfare of the participants, give them the freedom to decline participation, maintain the confidentiality of the research data, and make every effort to minimize potential risks to the participants in the study.

More specifically, I, as the researcher, provided as much information as possible to allow participants to make a free and informed choice during the participant recruitment. Such information included descriptions of the nature of participation, the duration of participation, the nature of the data to be collected, how the data would be stored and reported, the nature of any possible risk to which participants might be exposed, and how participants could withdraw once the study had begun. During the data collection and the data analysis procedures, I ensured the

participants felt comfortable with the environment and avoided causing anxiety. I also maintained the confidentiality of data and participant anonymity. I kept the collected data in a secure location, namely, a computer with a password. Additionally, I did not ask questions or collect data that were not essential to the study to avoid invasions of privacy.

Summary

The particularistic, descriptive, heuristic and flexible characteristics of case studies make this approach appropriate to this investigation. Recruitment of participants was conducted among Chinese graduate students within my existing network. Data were collected through one-on-one interviews and then were analyzed following the framework of typological analysis (Hatch, 2002). The results are presented as themes in the following chapter.

Chapter Six: Participants' Experiences

In this chapter, I will present themes based on the interview data. There are six themes: Expectations before Coming to Canada, Meeting Basic Needs in a New Environment, the Development of Social Networks, the Nature of Social Lives and Social Networks, University Events as Opportunities to Expand Social Networks, and What Students Think the University Can Do Better. The first section reveals the participants' expectations for their academic and personal lives in Canada before their arrival. The second section, Meeting Basic Needs in a New Environment, focuses on the challenges the participants encountered when they arrived in Canada and how they overcame them. The third section focuses on how the participants developed their social networks as newcomers in Canada. The Nature of Social Lives and Social Networks section reveals the participants' reflections on the nature of their social lives and their perspectives on social network building. Section five focuses on what opportunities the environment provided for the participants that helped them build their social networks. The last section reflects feedback from the participants to the university on how the university can improve to assist students in developing their social networks. This chapter presents the participants' recounted experiences, focusing on their interactions with environmental factors and the nature of their social support. As mentioned in Chapter 5, five out of six interviews were conducted in Chinese; therefore, I have not used long quotes from the interviews. However, I have tried to reflect the participant's statements, and my discussion is interspersed with words used by participants and indicated with quotation marks.

Expectations before Coming to Canada

When describing the expectations that they had before coming to study in Canada, participants focused almost entirely on their high expectations for academic success. They had

much less to say about social expectations, which suggests that academic factors were among the most important considerations in their decision to carry out graduate studies at a Canadian university. Such expectations for academic success and opportunity can be linked to broad ecological factors operating at a macro level. As mentioned in Chapter Four, global reputation is a key factor for universities to compete in the global education market (Knight, 2008). The World University Ranking System plays an important role, and most of the top-ranked universities are western universities.

Attitudes and beliefs shaped by these global discourses were evident among the participants in this study. Some expressed the view that a doctoral degree in Canada is "superior" to one from China. For example, Peng considered North America "the centre of the academic world". Similarly, Gui indicated her view that she could receive "better" academic instruction by studying at a Canadian university and that Ph.D. programs involving study abroad experiences are more "popular" in China.

In some cases, expectations about studying in Canada were shaped not only by the global context but also by personal experiences at a more micro level. For example, Gui described her experience of being a Master's student in China as unpleasant because she sometimes felt like her supervisor's "personal property". She stated, "I was very upset when I had to be in charge of my supervisor's invoices and reimbursements for a year." Partly as a result of this experience, she expected to receive "better" academic instruction by pursuing her further graduate studies in Canada.

Other participants also described how personal experiences at a micro-level influenced their decision to pursue university studies abroad. For instance, Jian's story with Canada started with an exchange experience while he was an undergraduate student in Computer Science in

Chongqing. Before that, he had not considered Canada as his destination of study, but that exchange experience impressed him, leading him to anticipate a similarly positive experience for his graduate studies. Na and her husband had stable jobs in Beijing, but they felt that the "freshness" was fading. They wanted to have a fresh start in a country with "a good natural environment", and this desire for adventure ultimately led them to Canada. Na also indicated that she expected to gain personal growth and development out of the program rather than merely a degree. Through her 5 years of teaching experience, she realized some limits in her knowledge and competencies. Therefore, she quit her job and was determined to improve herself rather than just gain a degree. She had a strong will and high expectations of her study experience in Canada and hoped it would not only help her overcome what she perceived as shortcomings, but also help her become a stronger person in general.

Although participants expressed high expectations for their academic experiences in Canada, they had fewer expectations—and in some cases low ones—for their social lives. For example, before coming to Canada, Tou thought that the university here would be boring because "it is in a city that I have never heard of," and he was concerned that the environment would not be urban enough. Knowing that he would be leaving friends behind and believing that his hometown offered more social events, he did not have high expectations for his social life in Canada. Gui did not expect many "social elements" in her life here because she felt that being a doctoral student and ultimately becoming a faculty member is inherently "a lonely journey". She hoped, nonetheless, that she could make some friends here and make herself less lonely by connecting with domestic people and learning the culture. Na, because of her personal situation of having family members in Canada and, therefore, not feeling a strong need to make friends and expand her social circle, did not have high expectations of her social life.

It is evident that participants' expectations were shaped by a combination of macro-level factors (i.e., global trends in higher education) and micro-level ones (i.e., personal experiences and circumstances). It also appears that high academic expectations based on macro-level factors, such as university rankings and the prestige associated with studying in North America, helped to shape similarly high expectations for how their personal academic experiences would play out at the micro-level. Participants were studying at "the centre of the academic world" and expected, therefore, to have a high-quality experience. They had high expectations of their supervisors and research within their department, and they anticipated abundant support from the university. For example, Gui imagined that she could get along well with her supervisor, colleagues, and students. Similarly, Bing hoped to have good relationships with her supervisor and other instructors, communicate well with people in her departments, and find the help and support that she needed for her studies and research. Thus, even when participants had low expectations of their social lives in Canada, they were still keenly aware of the importance of good relationships with people in the department, especially their supervisors. These relationships straddle the academic realm and the social, and as discussed in section 6.3, supervisors and departmental colleagues affected not only students' academic experiences but often their personal lives as well.

Meeting Basic Needs in a New Environment

As newcomers to Canada, most participants faced challenges in adapting to their new living environment. Many of these challenges were related to meeting their basic needs, such as food, transportation, winter clothing, and communication. Grocery shopping was an initial challenge mentioned by some participants. Gui, for example, said that when she looked at the strange foreign vegetables and various spices in the grocery stores here, she wondered, "What on

earth are these? How to eat or use them"? She could not find enough ingredients in nearby grocery stores to cook Chinese dishes. Thanks to a friend whom she met in her graduate student office, she eventually found an inexpensive Chinese grocery store, which also helped her reduce her food expenses. She also found it extremely inconvenient to go for groceries without a car, especially in winter. "There were just so many challenges in life", she said. Similarly, Peng described how grocery shopping was a problem. For the first 6 months, he only knew about major supermarket chains and then, through other Chinese students, he learned that there were Chinese grocery stores, too.

Transportation was another basic need, and adapting to the public transit system created some challenges. Gui was surprised to learn that, unlike in China, buses here do not stop unless someone wants to get off and signals by pulling the cord or pushing the button. She had some "adventures" because she missed her stop and had to backtrack with other people's help. To assist with transportation, the university offered weekly grocery buses and an annual Ikea trip for students. Gui pointed to the value of these supports, noting that they were not only relevant for addressing transportation needs but also provided some social network-building opportunities. These trips brought students together in common spaces (buses and grocery stores) where they also shared common ground (food and cooking). Participants added that students on these trips could share their experiences in Canada, and new international students could ask domestic students or other international students about the foods they were not familiar with. Moreover, some of them met regularly on these trips.

The weather was another initial challenge mentioned by some participants. Gui, as a student from the south of China, did not know what to wear in extremely cold weather and had to ask her colleagues for some suggestions. Peng found that "the winter comes fast" and when he

first went out on a snowy day, his shoes filled with snow, and he realized that he would need to buy a pair of boots. He described the first winter as “bitter”, noting that this term referred not only to the coldness, but also represented his mood and state of mind. When Na and her husband first moved to Edmonton, she felt they were trapped in their home because of the snow. They did not have a car at that time, so they could not get around easily. They often walked in a shopping mall as an activity. After the winter term began, Na had access to her office and started her courses. Hence, she went to the university more and the feeling of being trapped in the house was gone. Na and her husband often went to the university and used libraries and the gym, which made them feel better as well. The university provided orientation for new students, which included how to prepare for winter in Edmonton. However, most participants indicated that they were not aware of this orientation or that they did not attend it.

Some participants also mentioned their challenges with communication. Tou considered the language barrier to be his major difficulty when he first arrived in Canada, despite the fact that he started learning English when he was 3 years old. He said that he had “a good sense of using English in a classroom with classmates and teachers”, but still had difficulty expressing himself in Canada. Referring to words and expressions in English, he said they were “not new to me, but how to use them and express them is new to me.”

Gui also felt that she experienced a process of adjustment to communicating in English. In the beginning, she felt disappointed in herself when she could not understand and get involved in a conversation, when she read and wrote slowly in English, and when she was afraid of making a phone call because she could not see the person, understand well or speak confidently. She was eager to habituate to all of these situations immediately. After a year, she felt things were improving. Her experience of being a teaching assistant may have helped, since she had to

push herself to use a lot of English, which helped her improve rapidly. She said that her colleagues noticed that she could express her ideas more freely. She also felt that she could communicate with others and deal with tasks more easily.

Na also thought that language was initially a major problem because she could not express herself freely and adequately. She thought that, unlike children who have less sense of fear or embarrassment, she experienced psychological struggles before speaking in English and would avoid talking to people like customer service if possible. Even after 2 years in Canada she still preferred to communicate with customer service through typing rather than calling them. Therefore, she felt isolated and lonely. Although she was not alone in Canada since her husband accompanied her, Na still had a sense of loneliness at the beginning of her time in Canada. Besides her husband, she did not know anyone else or have any social relationships. She found it difficult to position herself in the community. She did not feel like a member of her faculty or the city.

The Development of Social Networks

The role of other international and domestic students in helping new international students in meeting social needs and cultural adjustment is invaluable. Moving to a foreign country to pursue higher education or any other purpose can be an overwhelming experience. New international students often encounter various challenges, including language barriers, cultural differences, homesickness, and a lack of familiarity with local customs and social norms. In such circumstances, the presence and support of other international and domestic students can make a significant difference in their overall experience and well-being.

Other international students have gone through similar challenges and struggles while adjusting to the new culture and academic environment, such as grocery shopping,

transportation, and the weather. Their shared experiences create a bond of empathy and understanding with the newcomers, making it easier for them to open up and seek guidance. The feeling of not being alone in their journey can provide a great sense of relief and comfort to new international students. International students who have already built a social network can also include newcomers in their circles, facilitating social integration. They can introduce them to various social events, clubs, and extracurricular activities, enabling new students to make friends and feel a sense of belonging.

The participants of this study developed their social networks through various social settings, and the settings that were available to them had important impacts on their social networks. This section focuses on two important settings for the participants, namely, their graduate student office and their home/family. These settings not only provided the participants with opportunities to develop their social network, but also functioned as the initial central points of their social network, thus serving as a base from which to expand their social circles. Therefore, these settings played a key role in shaping the participants' social networks, and they point to the significance of the physical environment as a component of the ecological context.

Office

The graduate student office was one of the most important settings in which the participants built their social networks, because it was one of the first places where they met their peers who shared common academic interests and because it provided repeated encounters with the same individuals. Furthermore, it served as a base through which other contacts could be made and became the hub of their new social network in Canada. Thus, at the microsystem, the office was one of the most effective settings for the participants to come to know new people, including ones from other ethnic backgrounds. Since most international students do not have

established social relationships when they start their programs in Canada, they must start a new life and build new relationships. Participants described how their graduate student colleagues at the office were the ones they met most frequently at the beginning of their Canadian lives and how the office was a crucial setting for them to build intercultural relationships.

Gui, for example, built very close, and even intimate, relationships with her office mates. She socialized with her graduate student colleagues frequently and they provided support to each other. Gui even married a fellow student whom she initially met within a student office context. Tou is another participant who often socialized with his office colleagues. He went to his office almost every workday and spoke to his colleagues constantly. In Peng's case, the important role of the office space is further illustrated by the impacts that resulted when his office was no longer available. When Peng's department was restructured and many graduate students he knew transferred to other universities, he lost his office space and the intercultural relationships that had been developed in his first year. He described how difficult it was for him to build new social relations within the new department structure without a space to stay and work. Therefore, he had to seek out other opportunities, such as a badminton club, to develop new social relationships and to fill the gap left by the loss of his office as a central point in his social life.

The atmosphere or the cultural environment of the office was also an important factor that influenced students' ability to develop intercultural relationships. Participants noted that in some offices, small talk was not appreciated or students did not feel welcome to join with other ethnic groups. In that case, although they had physical or proximal access to office space and colleagues, it was difficult for them to develop meaningful intercultural relationships with other students.

At the Mesosystem level, which consists of interactions between micro-level settings, some participants expanded their social network by using their office as the initial central point. In the beginning, these participants had only the social circle associated with their office. However, they could use those relationships to expand their circles or develop new social circles to continue growing their social networks in Canada.

As illustrated in Figure 1, Gui and Tou met colleagues at their office, who became friends, and in Gui's case even a partner. They then made more friends by building from the social circles of their office colleagues. As they came to socialize with people from other settings, such as university-arranged events, gyms, coffee shops, the office was the starting point and the centre of their mesosystems. Thus, the office setting served not only as a single social circle, but also as the central point of the entire social network development of some participants. For most of the participants, the office was their first and best chance to build intercultural relationships in Canada.

Figure 1

Office-based students' social settings

At the meso-level, supervisors' offices were an extension of the graduate student office circle. Graduate student colleagues sometimes share the same supervisor, and supervisors can be central to relationship networks among students. As mentioned previously, supervisors and departmental colleagues affected not only students' academic experiences but often their personal lives as well. Although, for most of the participants, socializing with supervisors was not a major part of their social lives at the micro-level, their relationships with their supervisors were still important to them and could influence their broader relationship networks.

At the meso-level, supervisory groups and academic departments also served as settings to provide the participants with a common ground. Some participants tended to socialize with people who shared the same culture, language, etc. However, for graduate students, similar research interests or the same supervisor can be an important source of common ground even across other differences. In Jian's Ph.D. program, he enjoyed playing board games with his colleagues at his supervisor's parties; however, he did not feel that he had close relationships with his colleagues at the same office because their research areas were different. Although he rarely talked to his office mates, he talked more with colleagues who shared the same supervisor with him. Hence, besides the physical space, such as sharing an office or an apartment, other forms of common ground, such as research interests, supervisors, and hobbies, were also important to the participants' social connections.

Family/Home

In some cases, participants lived in Canada with their family members (spouses and children), which affected how they built their social networks. For example, Na and her husband left their jobs in China and came to Canada together. Bing's husband came to Canada first and then she moved along with their son a year later. Unlike participants who did not have family

members in Canada, married participants' main setting of socializing was their family/home. At the meso-level, their social network was built around their family.

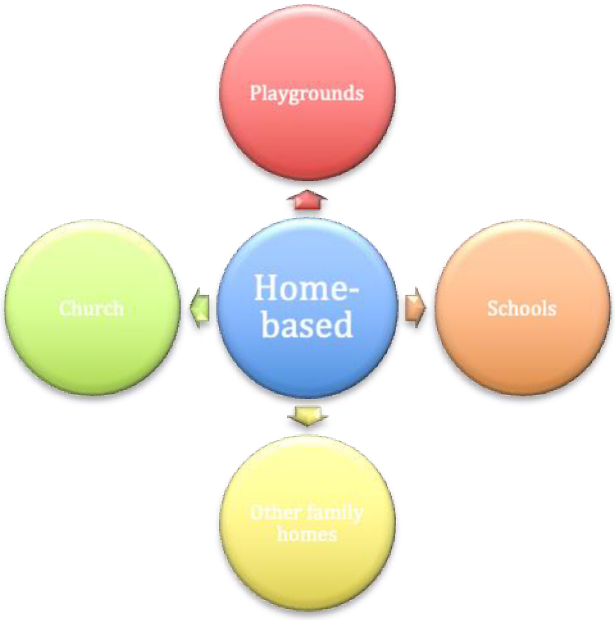
Participants whose primary setting of socialization was the home began the development of their social networks based on the needs of their families. In these cases, the demographics of their family were important, such as whether they had children and whether their spouses were Chinese. These participants tended to socialize as a family group, rather than individually, and they were more likely to have a merged social circle, which included important friends of all family members. How married participants developed their social network depended less on personal choice or field of study, and more on the social needs of each family member and the location of their homes.

For example, Bing mainly socialized with other families, both domestic and Chinese, that had children. Her family was invited to public events, hiking, camping, and dinners in homes. She formed connections with people she knew from her son's school, including the parents of her son's friends. Playgrounds were also locations where she could interact with other parents while their children played together. Na felt that she had to spend a significant amount of her time maintaining the operation of the family, such as buying groceries and shopping with her husband. Because of these responsibilities, she liked to spend the rest of her spare time relaxing. She spent much of her free time with her husband or by herself. She also spent a lot of time at church events and made friends through the Chinese church. Since her husband did not speak English well, these events were social opportunities that they could easily join together. Gui sometimes socialized in the Japanese community because of her boyfriend. For instance, she attended an event organized by the Japanese Graduate Student Association because her boyfriend was the president of that association, and she also socialized with the friends of her boyfriend.

Therefore, marital status was an important factor that affected how participants built their social relationships in Canada. If they were married, their social center was usually their home and involved other members of their family. Family members' interests and characteristics, including English language proficiency, affected who they interacted with. Figure 2 illustrates how the participants with families in Canada developed their social networks. They mainly spent their free time within the family. When they started socializing, they tended to attend activities in which their family members could participate. Participants without children found their social networks to be highly influenced by their partner or spouse. The one participant with children mainly socialized with other families who had children as well as in settings that involved her children, such as playgrounds or school.

Figure 2

Family-based students' social settings



Participants formed their social networks on the basis of what the environment offered and how they interacted within those environments. Two settings, in particular, seemed to be

very important for the participants. These settings were the office and the home. They not only provided important social settings but also served as hubs, or central points, of the participants' social networks. The different central points shaped different dynamics within their social networks.

For example, the office was found to be a crucial setting for participants because, for the majority of them, it was where they began building their social networks in Canada. For those with accompanying families, social network development began with the family as the starting point. International students' social network development is often considered to be about personal choices, personal capacities, personalities, or individuals' willingness. However, the participants' social network development was greatly impacted by their settings and other features of the ecology, and in many cases, participants could not decide what affordances the environment offered them. For example, a student cannot choose how many students are in their office or who is in the office, and some may not have an office at all. Ostensibly, the participants with families could choose to socialize more with other students rather than with their family, but in reality, it might be difficult to ignore their family responsibilities. Therefore, international students' social network development is shaped to a large extent by their environment and the settings that they inhabit.

The Nature of Social Lives and Social Networks

The participants reflected on the nature of their social lives and compared their social circles with those of other students. Their reflections show the diversity of their social needs and their perspectives on social network building. However, most of them emphasized the importance of the quality of their relationships, and all of them thought that mainly socializing

with conationals is not a problem, but some thought that “only” socializing with conationals might be an issue for their own personal development.

Most participants did not report having a large social circle. They emphasized the quality and depth of the relationships. For example, Gui valued the quality of her friendships rather than the quantity. She indicated that at her age (28), she did not need to have many acquaintances. Although she agreed that knowing people who could provide help in the future was necessary, she considered it more important in her social life to know people she could get along with and talk to in order to make peace with her dissatisfaction in life and share challenges she was experiencing. Na had a strict definition of friends and did not consider casual acquaintances to be friends. To her, a friend is someone whose values she can understand through conversation and someone whose values do not conflict with her own. She also indicated that a friend should be reliable and trustworthy, and that it was important for her to have the opportunity to learn whether a person has these qualities. Bing stated that people will have a better relationship if they are involved in “teamwork” or work on something together, such as a project or assignment, because this will result in more opportunities to communicate and know each other. Bing felt that she had opportunities to know new friends, but not many opportunities to “know them deeply”, unless “you put some effort into it”. For example, she thought it was important to “take initiative”, through efforts such as inviting a person for coffee to continue the dialogue. Otherwise, Bing thought that relationships would be “very superficial”. She thought it is important to join activities “regularly” and to make a commitment to know new friends. Like many other participants, Tou stated that he prefers to socialize with small groups of close friends. He said, “I would like to know people in a more familiar way, maybe a couple of friends I already know.”

When comparing their social lives to those of other people, participants used various groups of students as reference points. Some compared themselves with domestic students, some with other international students, undergraduate students, or younger students, and some with students in the same department. The diversity of the comparison groups reflects the participants' situation, experience, and environment. When comparing herself with domestic students, Gui found that they prefer to hang out with other domestic students. For example, the four domestic female students in her department would have girls' nights out frequently.

Na found that, compared with her social life in Beijing, her life here is simpler. She pointed out that since she does not need to attend social events frequently, she has more time to reflect and think. She added that these opportunities to reflect were an important reason for her own personal growth in the last 2 years, since she came to realize that it takes time to build things up and that she should not rush things like trying to graduate in 4 years, for example.

Tou did not see his social life as different from that of his colleagues. However, he indicated that he might be different from other international students because he is a graduate student. He described how undergraduate students do not have a work environment and they go to different classes. They do not have an office or colleagues that they talk to every day. He thought that his "relational mobility" is greater than theirs. He stated that "relational mobility" is "how easy or difficult you get to know a new group of people." He said that the mobility is high for graduate students, because they inhabit "a more stabilized environment", adding that "you get to know these people, you meet them every day, (and) it is easier for you to get to know them." He felt that this is why he was different from international undergraduate students. Tou's thoughts echo the idea discussed previously that the office is an important setting for international graduate students to develop their social network in Canada.

Peng felt that his social life was different from that of other Ph.D. students in his department. He found it difficult to get involved in other Ph.D. students' conversations because "you don't know what they are talking about" and "you can only say hi." Furthermore, because "the small circle has been formed", he thought that other students did not actively involve him in the conversation. He said that although Canada is a multicultural country, he found it difficult to have conversations with non-conationals unless the conversations were work-related. For example, sometimes he wanted to talk more with his colleagues, but "the focus of the conversation will be shifted, and you cannot get involved anymore because they would talk about something that they know in common, but you don't know". As a result, he often felt excluded from conversations.

Bing felt that her social life was different from that of other students because of her age and having a family. She was not able to join many campus events, especially ones in the evening and on weekends, because she needed to take care of her children. However, she thought that an advantage of her situation was that she could socialize with people who have families because they can talk about their children in addition to their research. She also formed connections with people from her son's school, such as the parents of his friends.

The participants also discussed the pros and cons of socializing mainly with co-nationals. Many of them noted that the quality of friendships and the ability to have in-depth communication are important. They indicated that it is easier to make friends with co-nationals and to satisfy their social needs, since they are able to communicate more easily and fully express themselves, and since they share a common cultural background and similar life concerns. Some participants also thought that friendships with co-nationals could provide mental and emotional supports while also serving as a social base from which to start their life in

Canada. However, some participants also expressed concerns that not socializing with people from other ethnic groups could affect their performance in Canadian workplaces and their integration into local society, thereby hindering their personal and career development.

Gui said that she thinks the reason why some international students socialize mainly with co-nationals is because of the distance between cultures. She pointed out that her purpose is not to know as many friends as possible, but rather to become happier among her friends and to create more interaction. She added that she would not decide to make friends based on their nationalities but indicated that she does have more Chinese friends than ones from other ethnic groups, especially among her friends from outside her own department.

Gui indicated that, in her social life, differences between cultures, languages, topics of interest, humour, and common ground, are more obvious than in academic environments, such as in class, at a conference, or in an office. In her view, most international students would like to gain access to the mainstream and understand Canadian or North American culture, including the social norms and adaptations necessary for success in an intercultural environment. She recognized, however, how difficult this can be and pointed out that it might not be easy even for Canadians to achieve this aim. She added that the challenges for Chinese international students are intensified. For example, as a teaching assistant, she could not completely understand all of the points that her students made in class, and she felt it was more difficult for her to design interesting activities to engage them. She was also not able to participate in "game shows" organized by her faculty, since she felt that she lacked the knowledge and background to contribute to her team. She thought that taking part in games or social activities could be more challenging than giving an academic presentation because even the rules took her a while to understand. Daily knowledge was sometimes more difficult to learn than academic knowledge.

Gui described how, at times, she had tried to force herself to communicate more with domestic people, improve her English, and socialize more, but she stated that she would not push herself to do these things now. She pointed out that she did not have a large number of friends in China, either, and thought this could be part of her personality. If she did not get along easily with someone, she did not try to force it. Through her department, she had built good relationships with a couple of domestic friends, but she did not feel that they spent much time together. Gui also indicated that she would not force herself to adapt to the cultural norms or characteristics here if she felt uncomfortable with them. For example, she thought that domestic students emphasized positivity, self-confidence, and that they always felt good about themselves, which made her wonder how they could be so optimistic, and even blindly so. She found this attitude tremendously different from Chinese culture, which emphasizes self-reflection, self-improvement, and fitting others' expectations. "I want to do it" cannot be the only reason that people do things, she said.

Gui said that she has seen people who can adapt to a local culture very well, but she thinks that every individual's situation is different, and people want different things. She added that she does not like the way that some people think it is pointless to study in Canada if you mainly make Chinese friends, as if you should do certain things to be an international student or as if there is "an invisible standard" that everyone should conform to. In her view, people who study overseas represent a broad range of ideas, thoughts, and experiences.

Na stated that she has sufficient interaction and communication with domestic people to satisfy her needs related to study and work. However, in order to satisfy her emotional needs and to form actual friendships, she felt that a more in-depth understanding would be needed. She felt that it is easier for Chinese co-nationals to understand each other, and she indicated that she

could express herself better with Chinese people. She added that the shared cultural background is an important factor in the ease of communication when interacting with others. Na indicated that she would like to make friends with domestic people but found it to be challenging. She also thought that making friends within the Chinese group did not prevent her from having her needs met. Friendship, in-depth communication, and even obtaining help in class are examples of needs that were all met through Na's circle of Chinese friends.

Jian described how, during his master's program, he mainly socialized with his office mates and barely spent time with Chinese students. Because all of his office mates had the same supervisor, this common ground allowed them to connect and talk about their research, despite their different national backgrounds. He thought it would have been better if he could have expanded his circle beyond his office at that time. He indicated that the way one relates to others is different with non-conationals than with co-nationals. He said that, when he speaks to non-conationals, he feels that he is not always able to fully express himself and that he sometimes gains different feelings and emotions through socializing with the Chinese. For example, he said that he cannot tell jokes in English as he does in Chinese. He pointed out that, even if he translates jokes into English, non-Chinese people may not be able to understand them because of cultural differences. He felt that it is easier to relate with Chinese students because they share a similar experience of studying in Canada, graduating, and looking for a job, adding that these issues are close to his "reality". He said that when he talks to people with different concerns, there is less connection to his own life.

Tou expressed the view that most Chinese international graduate students tend to stay together, but added that he not only has many Chinese friends, but also a lot of non-Chinese friends. Since he studied psychology, he made reference to a theory from his field of study:

"According to cultural attachment theory, to expand your circle, we need to have a secure base of who you are and what your culture is and hanging out with your co-nationals is to give you a secure base of identity. Also, it is the first step when you get into a new environment. People tend to find people who are like them or from the same country that they can start and develop social relationships based on the conational group. That is not a problem." He said that his own experience reflected this theory. He started in Canada by making friends mostly with Chinese people, and then he expanded his circle. "In my first year, if you don't have this group of (Chinese) friends, that would be a problem", he said, "because you have nobody."

Tou also pointed out that individuals vary and that it would not necessarily be problematic if Chinese students stayed in a co-national circle even after several years. He said, "If that makes them happy, it won't be a problem, but I can't say that is my strategy living in a foreign country. I want to get to know the people and culture. That is my strategy." He pointed out the distinct circumstances of international students, who are often in a temporary social environment since many will return to their home countries after graduation. He indicated that there are benefits for international students if they expand their circle, get to know the culture, and take advantage of the cultural learning opportunity, but he also understood the reasons why some people do not do these things.

Some participants did express concerns over mainly socializing with co-nationals. Jian noted that he does not have non-Chinese friends in his Ph.D. program. He felt that he did not have the intentions or necessity to communicate with them. He realized that this might be a problem, especially after his graduation when he starts work. He thought it would benefit his career if he knew domestic people because most of his work colleagues might not be Chinese. He thought that if he communicated more with non-Chinese people, he would understand them

better, which would be beneficial to his work. He described a previous situation of having several domestic roommates, and felt that he learned a lot from them that he could never learn from other Chinese people.

Peng thought that it is important and helpful to communicate within one's own ethnic group, but he added that it might not be beneficial for the development of the group. He was concerned that it could create potential barriers to integrating into society. For example, he thought those from the domestic cultural group would be best able to provide accurate and culturally appropriate information or advice. He wondered whether he had sufficiently considered these kinds of opportunities for social integration and career development when forming his social network. He said that he only considers whether he likes a person or not when he socializes. He thinks that international students who wish to remain in Canada should also consider building a network that is conducive to building a life here.

Bing indicated that socializing mainly with co-nationals is not a problem if one socializes with other ethnic groups as well. She thought it would be a problem if one communicated and socialized "only" with co-nationals. Bing pointed out that "superficial communication or contact is necessary because all (relationships) start there" and "it takes time" to build them up. She thought it normal for international students to feel that having "in-depth" conversations with co-nationals is easier because of language and culture. "You may feel that you cannot communicate thoroughly because you cannot express yourself that way" and if you find the one you are talking to does not have the patience to listen to you, then you will "pull yourself back" to your comfort zone because you do not want to "feel uncomfortable again". She added that "talking to Chinese students feels so good" since "they can understand me". She thought that this sort of emotional

and psychological support is very important for students' mental health. She felt that it is very difficult to have "mutual in-depth communication" with non-conationals.

Bing thought that she should "push" herself to gain more opportunities to meet people. For example, she stated that "it is very easy to talk to someone you know in an event", but "this is actually a good opportunity to know new people". She added, "You should push yourself to talk to strangers", but "sometimes it is very difficult" and "psychologically you are very uncomfortable" because you have many concerns like "Does this person like what I am talking about" or "Can I understand what he or she is talking about". She described herself as an "easygoing" person who is willing to talk to others. She noted that the opportunity to meet others depends on who "will take the first step and then it gets easier".

University Events as Opportunities to Expand Social Networks

The university environment provided activities and events that offered opportunities for the participants to expand their social networks. However, the participants perceived and interacted with the supports from the university differently. The participants' experience with the university supports differed based on factors such as the relevance of the activities or events and participants' degree of involvement in the activities. Many of the participants would consciously "evaluate" the activities and events when they were aware of them and then decide whether or not to attend based largely on their perception of the relevance of the activities.

At the micro level, although most supervisors in the study only focused on students' academic lives, there were some supervisors who organized parties and other events, which helped students socialize with graduate student colleagues and faculty members. Participants usually considered these events to be highly relevant and used them as opportunities to establish a good rapport with their supervisors and others in their department.

Jian's supervisor, for instance, would provide board games that Jian found very entertaining. In Tou's department, it was also normal for faculty members to hold parties and invite students. His supervisor did so once or twice a year. Some professors also organized casual dinners when there were guest speakers visiting from other universities. Although Bing did not socialize much with her supervisor, she did eat out with one instructor of her course after meetings because they were working on a project together. These various examples illustrate how university events provided opportunities to develop social ties and expand social networks.

At the meso-level, most departments held annual events, such as retreats, new student welcome events, and annual celebrations, to connect students and faculty members. Departments also arranged academic activities with social elements, including guest speaker presentations and a Research Expo. Such events were usually considered relevant by the participants and well received by them. In contrast, if participants evaluated events as being low in relevance, they tended not to participate. For example, Peng and Bing both knew of the international student centre, but they only became involved there because of work opportunities rather than as students. Similarly, Na was aware of the international student centre and the Chinese student association, but she only attended one activity. Jian knew of the game nights organized by his department's student association, and he knew of events planned by other clubs and student groups on campus, but he never attended.

Once the participants attended an activity or event, they would decide if they wanted to attend again in the future, and their assessment of the experiences seemed to depend largely on the degree of involvement that they felt at the activities or events. In general, the more involved they were in the activity, the more willing they were to participate again or to have a favourable view of the activity.

The activities and events that participants chose to attend the most frequently included parties, lunches, and dinners held by professors; retreats, celebrations, BBQs to welcome new students, presentations organized by departments; student associations; and clubs, such as badminton and choir. There were other activities or events that students did not attend frequently, but where they gained a high degree of involvement or had pleasant experiences. These included the Ikea trip organized by the international student centre, Na and Tou's volunteer experiences in public school and working at the international student centre as mentors, workshops about immigration and professional development in which Jian and Tou participated, and the Research Expo organized by Na's faculty.

There were also activities or events in which students participated, but due to unpleasant experiences, they decided not to attend again. For instance, Trivia in Gui's department made her feel like someone who was "useless" and "knew nothing". Since she did not have "a sense of involvement," she determined that she would not like to participate in that kind of activity again. Gui also mentioned that in the social events organized by the residence service, the superficial forms of social interaction, such as saying "hello" or asking "where are you from," did not give her a sense of satisfaction. Na described a bowling night event where she did not feel that she could talk about research or other professional or academic topics with the people she met, because there was only one other graduate student there. She felt she could only engage in small talk with them, so she decided not to attend again.

In summary, the participants interacted differently with the supports provided by the university based largely on relevance and degree of involvement. The participants would decide whether or not to attend an event based on how relevant that event was to their academic or personal goals. Moreover, how positive the experience seemed related to the degree of

involvement they experienced during that event. The more involved they were, the more likely they would view the event favourably and attend again.

What Students Think the University Can Do Better

Most participants agreed that the university had provided opportunities for them to socialize and develop their social networks; however, they also shared their opinions on what the university can improve. Most participants provided suggestions based on their perspective as international graduate students, but two participants, Bing and Peng, had worked in the university's international centre and they shared insights based on their work experiences. In this section, I draw mainly upon my interview with Bing, in which she very openly shared many insights resulting from her dual perspective.

Bing recounted that, as a student, she did not have much awareness of what the university contributed to Chinese international student's social life. After she started working for the international student centre, however, she realized that the university paid a lot of attention to this issue because Chinese students are the largest group of international students at both the undergraduate and graduate levels. She said that the university noticed that because of the large number and the collective cultural background, Chinese students tended to be able to stay in their co-national circle, and the university was putting effort into providing opportunities to change this situation.

There were collaborations between the international centre and Chinese students' associations, such as promoting the events organized by the centre to Chinese students through the associations. Previously, Chinese students often seemed unaware of events organized by the international centre. Bing stated, "You would find that although Chinese students are the majority (of international students), when there was an event, you could not see many Chinese

students". Commenting on this situation, she added, "It is abnormal". After promotion through Chinese student associations, "there is a significant increase in the participation of Chinese students". "You cannot force students to participate", Bing stated, "The only thing you can do is to attract them and let them know". To let them know, the centre created a WeChat account to post important information for Chinese students to let them know what was happening in the university, to spread the word, and get them involved. Bing also noted that there was a series of events related to jobs and careers, which was also the result of collaboration with Chinese student associations. These events were "very successful", she said.

Based on the collaboration, Bing also attended events organized by Chinese student associations to further advertise the centre and publicize what services the centre provides, what events they have, what volunteer opportunities they provide, and so on. There was also "an education piece" when Bing participated in the events, such as giving students suggestions on what to do during their study in Canada, what resources they can use, and intercultural education sessions. These initiatives provide examples of the kinds of efforts that were being made at the university and also illustrate their potential impact.

Bing thought, however, that "there is definitely some space to improve". As an employee of the international student centre, she described the international student service as one component of a complex administrative structure in which the parts often seemed to operate in "parallel" rather than in tandem. There was an international student centre, faculty-student service, Graduate Student Association, Student Union, and so on; however, they did not always seem to communicate with each other enough. Bing described how students often seemed to use the services they were familiar with, while sometimes seeming unaware of others. She added that the various services did not always seem to take the initiative to make themselves more visible to

students. In addition, besides the Chinese students' associations, there were many other international student groups. Bing thought that there could be more interactions between these groups to encourage intercultural communication between non-conational international students and to enhance the diversity of the events.

Bing also compared the differences between international student services in Canada and those in China. She felt that in Canada, students are considered "completely independent individuals", and it is "up to you". In China, however, she felt there is a "blanket" and "no dead corner", which means "all information and services will be informed to every student" and "no matter whether you go out or not, you will not be left". Additionally, she felt that although the student service structure in Canada was "almost ten times the size of the ones in China", international students did not know how to find and use the services that were available. She said the university was trying to educate students to find the resources.

In Bing's opinion, there should be a more "scaffolding supportive system" in the first year to help international students transition to the point where they can access supports more independently. "It should not be like swim or sink when they just get here", she said. Nevertheless, she thought that if international students were managed the same as domestic students, it might help them to adapt to the system more quickly. She emphasized that most students needed a process to adapt, especially in the first year, and that they must adjust well in the first year, otherwise they would be more likely to encounter serious problems in the future.

Bing believed that the culture is different in Canada, and she felt that the provision of services at the university reflected the culture. From high school, Canadian students do not have a homeroom class anymore, they move to different rooms for different courses and once they are 18 years old, they are considered adults. Canadian university services reflect this cultural view:

students are adults, and the services are there for those who seek them out and make use of them. Furthermore, this approach to domestic students has tended to be applied to international students as well, even though their own cultural view may differ. However, the university has realized that international students have barriers in language and culture and need more service, resources, and support and that is why the international centre was built. Bing also mentioned that there are international student advisors in the five faculties with the largest number of international students. She thought that it is very unlikely that Canadian universities will provide "blanket student service with no dead corner" and "each student receives all the information" because of the different operating methods and administrative systems. Therefore, "there needs to be a balance and students should be aware of that".

Bing also thought that because the number of undergraduate students is larger than the number of graduate students, more undergraduate students attend events, which sometimes makes the events less conducive to meeting the needs of graduate students. She suggested that there could be more events focusing on graduate students' social life, because "they have different needs". Another challenge that Bing believed Chinese graduate students were facing was difficulty in finding a partner (boyfriend, girlfriend, spouse, etc.). She thought it unlikely that the university would organize dating or matching events and suggested, instead, that the best help that can be offered would be to try to expand the circle of the students. "The circle is too small", she said, adding that many students "only know the people at the same office or lab". She also pointed out that many graduate students have heavy academic workloads and even though they want to socialize, they often simply do not have the time. "What is your priority?" she asked and noted that "this is a challenge". She added, "At different stages, you have different priorities;

however, when your work is almost done and you are going to graduate, these (personal) questions will come to you and it might be too late".

Bing also expressed her thoughts about career development possibilities, reflecting the trend of government policies that provide immigration pathways for international students who can find a job soon after graduation. With respect to helping students adapt to the workplace and job market in Canada, Bing thought "it can be done better". She believed many students want to stay in Canada; however, when they graduated and looked for work, they encountered problems: "There was nothing in their resume; they did not know where to find jobs; they did not understand why they sent millions of resumes and got no interview." She thought the preparation and entry into work should start when international students are just beginning their study at the university. She thought this could help students know more about the "expectation from employers", the "Canadian working context", and where to direct their efforts in order "to help students adapt to the life here faster or to adapt to a long-term life in Canada".

"Many times we encourage students to volunteer", Bing said, adding that this provides opportunities to get to "know a lot of students and you do things together and gradually develop your leadership skills", making it "a very good approach". She thought China does not have a volunteer culture, noting that "it is not in her tradition" and that "many students did not realize how important it is to volunteer". She added that Chinese students often do not realize that by volunteering, "they not only benefit from what they do but also the platform they have to know people". Thus, she pointed out how volunteer experiences can not only provide resume items to improve their job prospects but also provide opportunities for expanding social circles.

Like Bing, Peng had worked at the international centre and provided some insights from that experience, focusing in particular on the lack of coordination between the various services

and supports, which seemed to be “everywhere” and available at levels ranging from the university to the faculty, the department, the international student centre, and student associations. He felt that this approach meant that services were offered “chaotically” and without central coordination**.** He also thought that many of the functions were overlapping, resulting in waste and inefficiency. He noted, however, that this system also provided some convenience for students, since they sometimes did not need to look beyond their department.

Although Bing and Peng could provide “insider” perspectives because of their work experience, most participants described their perceptions as students. Gui thought that her department, including her supervisor and staff, was not experienced in teaching and helping international students because the department was not “very internationalized”. Furthermore, because of the dominance of domestic students, she thought that “international students were comparatively neglected”. She explained that although Canada is a multicultural society, “you have to admit that White people are the absolute dominance of this society”. She added, “It is the same at the university. How many un-White professors you can see”? Gui thought that it is not that “the White people deliberately ignore international students, but they cannot see the difficulties that international students are facing”, especially if there was no one who stood up for them. She continued by adding, “I am not saying that they are not good. However, as a staff or a faculty member, if you don’t go to them and talk to them, they would not be able to understand the difficulties international students are facing in their lives and how different their situations are (to domestic students)”, since for example, they have to pay more tuition and have fewer scholarships. Gui was her supervisor’s first international student and she thought that he was not experienced. She also thought that although it was subtle, she sometimes felt unwelcome or sensed hostility, as if there were a barrier between domestic students and international students.

She hoped that the university could open more resources to international students and make structural changes, such as eliminating international student differential fees, which would help international students reduce their stress and meet their basic needs more easily. In addition, she thought that the university could provide more activities for international students and communicate more effectively about the ones that are already available.

Jian, Na, and Tou all echoed Gui's ideas regarding the need for more resources and customized activities. Jian did not think that his department had organized events specialized for international students. Na felt that less attention is paid to international graduate students compared to undergraduate students. Therefore, she hoped that there would more academic activities or events that are designed for graduate students, such as study groups, writing groups, and reading groups. She thought such activities would increase the in-person communication between graduate students and provide more opportunities to discuss academic issues with other graduate students. These types of activities could potentially be an important supplement to meetings with supervisors. Tou also thought that there should be more academic activities. He believed that international students may need extra help in order to understand their courses, and the overlap between academic and social activities is often very high for graduate students.

To summarize, there is no doubt that the university has put effort into supporting international students and contributing to their social network building. However, from the perspective of the participants, there are too many disparate places that provide assistance, and these various locations do not always communicate or cooperate effectively. The result is inconsistent support. For example, in some departments with fewer international students, the faculty members, staff, and domestic students lack the information, training, and experience to teach, support, and communicate with international students, even though much of this

knowledge could be found in other departments. As a result, some students can feel unwelcomed, or even neglected. The International Strategic Plan for the University (UAI, 2019) suggests an awareness that there needs to be a centralized department across the university to integrate the available resources and direct the internationalization of the university. It suggests, moreover, that there should be more training for faculty and staff in supporting international students. Thus, some potential directions for the university appear to reflect the participants' lived experiences and can hopefully address some of their suggestions.

Chapter Seven: Discussion and Conclusion

This chapter presents a discussion of the main findings of the study from three different perspectives. First, it examines how the environment influenced the social network development of the participants and how they adapted to their new context. Second, it argues that social connection is a fundamental human need for international students and that the university has a vital role to play in providing social support and fostering a sense of belonging. Third, it explores the participants' social activities in relation to the concept of meaningfulness as they sought to cope with the challenges and opportunities of living abroad. The chapter concludes with a discussion of implications of this study.

Social Networks and the Environment

In Chapter 6, I described how certain settings, such as graduate students' offices were important to the participants, and how those settings affected the development of their social networks. I also noted that the environment of Chinese international doctoral students has an important impact on their socialization. Although internal factors, such as language proficiency (Kodama, 2007; Liu, 2011; Mori, 2000; Ranta & Meckelborg, 2013; Zeng, 2010), personality (Tanaka, 2007; Yashima et al., 2018), and motivation (Gao, 2006; Khatib & Nourzadeh, 2015) have been shown to affect students' willingness to use the English language and further their social behaviours, the environment also plays a crucial role. In this study, the participants' experiences of forming social networks were shaped by their interactions with the ecological environment.

The Ecological Perspective concerns interactions between human individuals and environmental circumstances. According to Bronfenbrenner (1979, 1989, 1993), particular environmental conditions can produce different developmental consequences, depending on the

personal characteristics of an individual living in that environment; the same personal qualities may lead to different psychological consequences, depending on the environmental conditions to which the individual has been exposed. Furthermore, the environment is viewed as a system of nested, interdependent, dynamic structures ranging from the proximal, consisting of an immediate face-to-face setting, to the most distant, comprising broader social contexts such as social classes and culture (Bronfenbrenner, 1993). Bronfenbrenner (1989) proposed five different levels of environments: Chronosystem, Macrosystem, Exosystem, Mesosystem, and Microsystem.

Figure 3 illustrates the five ecological levels in relation to the participants and context of this study. At the Chrono and Macro levels, the university reflects global trends. Over the past 20 years, the trend of internationalization in higher education, changes in government policies, and the increased emphasis on world university rankings have all impacted the university's strategic plans and operation at the Exo level, which in turn affect the participants' socialization at the Meso and Micro levels.

In the center of Figure 3, each segment represents a participant. At the Micro level, the most immediate and important face-to-face setting, every participant has a base for their social networks, such as their office or home. These locales have an important impact on their social networks, because it is within these spaces that the social networks are established. Participants also inhabit other face-to-face settings at the Meso level and may, over time, become connected with still more settings. The participants share the same Exosystem, the administrative system of the university, which includes such concrete instantiations as department offices, the international student centre, student services, etc. Regardless of whether the participants had in-person interactions in these settings, these environments influenced their socialization through

the policies and decisions made there. At the Macro level, the university plays a symbolic and cultural role in relation to the participants, affecting the Exosystem and the more local settings at the Meso and Micro levels. The university, as both a space and a system, is influential in the participants' socialization, and it is also affected by federal policies, global trends, and university rankings. It is both influencer and influenced.

The participants' social networks are not static, but rather dynamic and evolving, as they continue to interact with different people and settings at different times. The growth of these networks is based on interactions between the participants and settings at different levels. The Meso level includes the interactions between the Micro level settings, such as the communication between the participants' offices and homes. These interactions can influence the participants' socialization processes, as they may encounter different norms, expectations, and challenges in different settings. Moreover, they may create opportunities for the participants to expand their social circles when they switch between and build connections between Micro level settings.

The Exo level consists of settings that indirectly affect the participants, such as the university administration, the faculty, and the department. These settings can shape the participants' socialization experiences by providing or limiting the resources, opportunities, and support that they need in their academic and social contexts. The resources may include the financial aid, the scholarships, and the grants that the participants can access. The opportunities may include the academic activities, the social events, and the networking platforms that the participants can participate in. The supports may include the academic guidance, the social assistance, and the emotional encouragement that the participants can receive.

The interaction between the participants and the Exo level is often indirect, as the participants may not have direct contact with the people or the places in these settings. However,

the Exo level can still influence the participants' socialization through the policies and decisions made in these settings, such as the admission criteria, the curriculum design, and the evaluation methods. Without adequate resources, opportunities, and support from the Exo level, the participants may face difficulties in establishing, maintaining, or expanding their social networks in the Micro and Meso settings. For example, many participants may lose their opportunities to participate in various events and activities, such as departmental social events, without the resources, opportunities, and supports from the Exo level.

The Macro level represents the larger and more abstract forces that shape the participants' experiences, and in this study, the Macro level includes the academic culture of the university and the societal values. The academic culture of the university may include the norms, expectations, and standards of the academic community, such as the faculty, the students, and the administrators. The societal values may include the beliefs, attitudes, and behaviors of the society, such as the language policies, the cultural diversity, and the focus on social justice.

The Macro level may influence the participants' academic identities, practices, and goals, which are the ways that the participants see themselves, act, and aspire in their academic contexts. For example, the academic culture of the university may influence the participants' academic identities by shaping their sense of belonging, competence, and recognition in the academic community. One way to do that is to provide or withdraw one's office space. The societal values may influence the participants' academic practices by affecting their language use, communication styles, and intercultural interactions in the academic contexts. For example, small talk may or may not be encouraged in one's office. The Macro level is not directly observable, but it is influential, as it affects the other levels of the ecological system and the

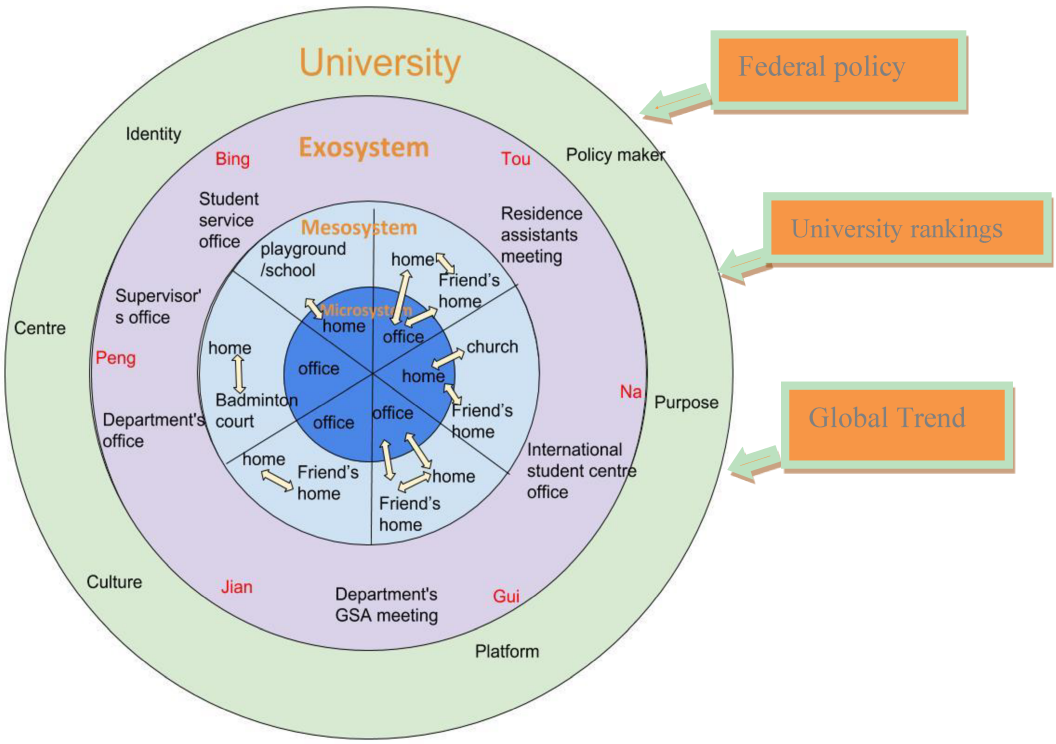
participants' interactions within and across them by influencing the norms, expectations, and challenges that the participants encounter in different settings and with different people.

The Chrono level refers to the temporal dimension of the participants' socialization. In this study, the Chrono level mainly consists of the evolution in federal policies that regulate the immigration and education of international students, the global trends that influence the internationalization and competitiveness of higher education, and the university rankings that reflect the reputation and quality of the university. These factors have changed over the past 2 decades and may have an impact on the participants' socialization experiences, as they significantly affect the strategies of the university. They may also shape the participants' motivations, expectations, and challenges in their academic and social contexts. For example, most of the participants in this study were motivated by the opportunity to study in a prestigious university, to receive a high-quality education, to engage in academic activities, and to secure a better future. However, those expectations were not merely the creation of individual minds; rather, they were shaped by information absorbed from the environment, such as university rankings, changes in the labor market, news media, etc.

The Ecological perspective emphasizes the dynamic and evolving nature of the participants' socialization and the significant influence of the environment on the participants' social network development. The environment plays a crucial role in individuals' social network development, just as it does for a seed. We can examine the internal factors of international students, such as their motivations, language proficiency, and personalities, just as we can examine the qualities of a seed, such as its size, shape, and color. However, we should not overlook the importance of the environment for their growth and development.

Figure 3

Five different levels of environment in a university



Social Connection as a Basic Human Need and Social Support from the University

As recounted by the participants in this study, once their basic material needs were satisfied, such as food (groceries), accommodation, and adaptation to the local weather (clothing and transportation), they began seeking human connections and developing their social networks in Canada. Since most international students do not have local connections when they arrive in Canada, building a social network is especially important and urgent for them. As a basic human need, social connection is crucial for students' mental health and their quality of life in the short and long term.

As stated in Chapter one, the American Psychological Association (2003) defines social support as the assistance or comfort provided by any interpersonal relationship, such as family members, friends, religious institutions, or colleagues, usually to help them overcome various biological, psychological, and social stressors. In this section, I employ Vaux, Riedel, and Stewart's (1987) model proposing five modes of social support, namely, emotional (e.g., caring, cheering up when sad), financial, practical (e.g. giving rides, helping to move), socializing (e.g., inviting to parties), and advice/guidance (e.g., providing information or help on how to do things). I also discuss the role that the university played in providing these forms of social support. Based on the participants' accounts, was the university able to provide enough social support? If not, how did the participants meet their needs?

Emotional

Because of the academic nature of the university as an institution, its role in providing emotional support is implicit. None of the participants mentioned seeking emotional support from the university when they were under pressure or depressed. However, the people they knew from the university, such as a boyfriend, colleagues, or friends, did provide emotional support to them. In addition, the university itself was often the main stressor in the participants' lives. Both Peng and Jian mentioned the difficulties they had in their academic lives and the tremendous pressure that they had to graduate. The pressure not only influenced their emotions but also their social lives. As Jian described, he not only lacked the time but also the mood to socialize.

In terms of emotional function, some of the participants sought emotional support from other ethnic groups, especially if they had developed friendships or other close relationships with their office mates. Nevertheless, if they had a family, as did Na and Bing, or if they did not make

friends with their colleagues, it was more likely that they found emotional support from co-nationals, as was the case for Peng and Jian.

In the university's strategic plan (University of Alberta, 2016), mental health is mentioned within a strategy under the objective of the Sustain goal: "Prioritize and sustain student, faculty, and staff health, wellness, and safety by delivering proactive, relevant, responsive, and accessible services and initiatives" (p. 28). The identified strategy is to "bolster resources for and increase access to mental health programs that provide support to students, faculty, and staff" (p. 28). This shows that the university is aware of the importance of mental health to students, faculty, and staff. However, mental health is not specifically mentioned in the university's international strategic plan, despite the particular needs of international students related to building new social networks and adjusting to a new culture.

The emotional experiences of participants affected their socialization processes, which are the ways that the participants interacted with different people and settings in their academic and social contexts. One the one hand, the emotional experiences of participants affected the development of their social networks in the aspects of socialization processes, outcomes, and strategies. On the other hand, success in expanding social circles helped the participants gain more sources of emotional support. Some of the participants felt happy and satisfied when they had positive and meaningful interactions with their colleagues, supervisors, or friends, which enhanced their sense of belonging, competence, and recognition in the academic community and a new environment. Furthermore, positive emotional experiences encouraged the participants to further explore their new environment and gain more emotional support. In contrast, limited emotional support or negative interactions reduced their sense of connection, confidence, and respect in the social community. When some of the participants felt anxious and frustrated

because of difficulties or stress in their studies or work, their sense of isolation in their academic and social contexts increased. In this study, some chose to reduce social activities and focus on their studies; others chose to seek emotional support from the co-national community.

The emotional experiences of participants also affected their socialization outcomes, which are the results of their socialization processes that may lead to other types of support, such as practical and advice support. For example, some of the participants developed strong and supportive social networks, which helped them cope with the emotional challenges, such as loneliness, homesickness, and cultural shock. In many cases, emotional support is bilateral and may lead to long-term relationships, such as friendship. Long-term relationships can be a source of other types of social support, such as practical support, socializing support, and advice support and help the participants improve their academic and social performance and their personal life experiences.

Participants' socialization strategies may be affected as well. These are the plans that the participants adopted or implemented to develop their social networks, especially in terms of the diversity of sources of emotional support. For example, some of the participants sought emotional support from different sources, such as their co-nationals, their office mates (various ethnic groups), their family, or their friends (various ethnic groups), depending on their emotional needs and preferences. However, some of the participants gained emotional support mainly from co-nationals, such as Chinese roommates or Chinese colleagues. Their strategies affected the processes and outcomes of their social network development.

Financial

Although only one student, Gui, emphasized the financial role of the university, all of the participants were either funded or paid by the university through graduate student employment.

Therefore, it is apparent that the university played an important role in their financial support. Gui expressed her hope that the university could provide more financial support to international students through measures such as eliminating international student differential fees and opening more scholarships to international students. In addition to helping with basic needs, financial support from the university can contribute to a sense of belonging within the university.

All participants had direct financial relationships with the university and most of them felt secure financially although there were students who were not funded as PhD students by the university or who would no longer be funded after a period of time. Those who were not funded as students by their department found jobs at the university's international administration, which offered the potential for more intercultural socialization opportunities.

In the international strategic plan, financial support is mentioned in the second objective of Experience which is to provide all students, domestic and international, with international dimensions in their learning experiences to educate them as global citizens via various programs (work abroad programs, joint or dual degree programs, summer schools, etc.), financial support for international learning, credit transfer, and certificates in global learning (UAI, 2019). Since this financial support is provided through very specific programs, it may not be able to benefit the full range of international students, including doctoral students.

One way that financial support and building social networks are connected is that financial support may enable or constrain the international students' opportunities to build social networks. For example, financial support provided by the university, either through funding or employment, can enable international students to access more resources, participate in more activities, and interact with more people in the university, which may enhance their social network development. On the other hand, some of the participants faced challenges or

expectations regarding the financial support from the university, such as the differential fees, the limited scholarships, or the uncertain funding. These challenges may constrain international students' opportunities to build social networks, as they may have to spend more time or energy on securing and maintaining financial resources, which may limit their social network development.

Another way that financial support and building social networks are connected is that financial support from the university can contribute to a sense of belonging within the university, as it may indicate the recognition and appreciation of international students by the university. This sense of belonging may affect international students' satisfaction with their academic and social experiences, which may motivate them to build more and better social networks in the university. Conversely, the lack of financial support from the university may reduce the sense of belonging within the university, as it may imply the exclusion and discrimination of international students by the university. This sense of belonging may affect international students' level of satisfaction with their academic and social experiences, which may discourage them from building social networks in the university. Social networks may also provide or supplement the financial supports of international students. For example, some of the participants received information regarding funding, jobs, and post-doctoral opportunities from their office mates, supervisors, and friends.

Practical

Practical supports address individuals' material or physical needs such as transportation or shopping. The university provided practical support by arranging activities such as Ikea trips, grocery store trips, and volunteer opportunities. Although only one participant mentioned knowing about and participating in these activities, her feedback was mostly positive and it

suggested that these activities provided opportunities for her to expand her social network. Since other participants did not take part in these activities, how did they obtain the practical support they need? Two of the participants, Na and Bing, were married and had cars; therefore, they were more self-sufficient in meeting their practical needs, such as transportation and obtaining groceries. Other participants had to rely on friends or paid transportation services.

Practical support is not mentioned in the university's strategic plans. This omission might reflect a lack of awareness of the value of this aspect of social support. Providing more practical supports, however, especially those that provide regular encounters, has the potential to increase international students' opportunities for socialization while also serving basic needs that extend beyond the students' academic life. Practical supports may create affordances or opportunities for social interaction, as they may bring international students into contact with a variety of people, both domestic and international, in settings in and out of the university, which may increase their chances of forming or strengthening their social networks. For example, the university-sponsored trips to Ikea and the grocery store were helpful for both the students' basic tangible needs and their socialization. Practical support opportunities may also affect the quality or quantity of the social interactions, as they may affect the type, frequency, or intensity of social interactions. For instance, some of the participants who had cars were more self-sufficient in meeting their practical needs, as a result, they may also have had fewer opportunities or motivations to build social networks with other students, especially those from different departments in the university.

The university can play a tangible role in providing affordances and opportunities for social interaction and therefore the potential development of social networks by providing more and better practical supports to international students. However, the potential opportunities or

affordances for social interaction that are offered by these types of practical supports may not be realized, as they depend on the actual actions that are taken by individuals. The participants in this study reported limited awareness and use of the practical support offered by the university. There may be various reasons why these potential opportunities or affordances for social interaction were not realized, such as personal factors, environmental factors, or interactional factors. Personal factors may include personal needs, interests, preferences, and challenges of an individual. For example, some participants preferred to shop for groceries with their family members, and they had their own cars. Some participants did not live on campus, so the trips were not easily accessible for them. Environmental factors may include the resources, opportunities, and supports that are provided or limited by the environment, such as the availability, accessibility, or quality of the practical supports and the social interactions that are offered. For instance, the university did not appear to address practical supports in its strategic plans. Interactional factors may include communication between the university and students and the promotion of the practical supports that are available. International students may not be aware of or interested in the practical supports that the university offers. Therefore, the university may need to improve its communication, as well as solicit the feedback and suggestions of international students regarding their practical and social needs and preferences.

Socializing

Socializing refers to supports that address people's recreational and psychological needs. It serves functions such as distracting and taking the mind off something, providing comfort, or entertainment. Whereas practical support is more tangible and observable, socializing is more intangible and subjective, more psychological and relational. Socializing can have important

positive effects, such as enhancing one's sense of belonging, one's feeling of competence, and one's satisfaction with the international student experience.

From parties at the supervisor's house to retreats, game nights, and social events organized by various university associations, the university's role in offering affordances for socializing was evident in the participants' accounts. However, their comments about these events were not uniformly positive. Participants sometimes described them as superficial and meaningless or noted that they did not provide a sense of satisfaction or belonging, such as the social events organized by the residence association. On the other hand, some participants indicated that they had developed meaningful relationships, with co-nationals or other ethnic groups, during these social events, such as game nights and the events at supervisor's homes. Therefore, although the university provided various affordances for socializing, their quality and effectiveness varied, according to the participants.

As mentioned previously, the office was a crucial setting for the international student participants to meet people who had commonalities, to encounter them regularly, and to develop intercultural relationships. When office spaces were unavailable or otherwise not meeting these needs, participants turned to other settings that provided opportunities to talk to people who shared commonalities. These settings included the home or school of their children when family members were present, or church or sports clubs when family members were not present. Therefore, in terms of socializing, the findings of this study indicate that participants took part in social activities with a range of ethnic groups; however, attending these events—especially the one-time events—did not always lead to the formation of relationships.

Whether participants perceived these affordances as satisfying and effective or unsatisfactory and ineffective mainly depended on two factors: quality, which includes relevance

to the participants and commonalities, and quantity, which includes availability, accessibility, and frequency of the events. For example, the office was a crucial setting for the international student participants to meet people who had commonalities (quality), to encounter them regularly (quantity), and to develop social relationships. This suggests that the office was an effective and convenient setting for social support, as it provided participants with opportunities to discuss their courses, supervisors, studies, and jobs. Furthermore, encounters in offices were frequent and regular. Game nights were another example of high-quality and adequate-quantity social events that were viewed as engaging, entertaining, and providing commonalities since they were organized by the department. Some social events organized by students' residence, in contrast, did not provide many commonalities because they included both undergraduates and graduate students from different departments. With respect to quantity, these events were also less frequent or were attended by different people each time.

All of the participants reported taking part in social activities with a range of ethnic groups. This suggests that the participants were aware of the benefits of interacting with people from different ethnic groups. Such benefits include improving their English language proficiency, enabling them to communicate, collaborate, and adapt effectively with people from different cultural backgrounds, facilitating their acculturation and integration into the host society, and enriching their personal and professional development and opportunities. It also suggests that the participants were willing to explore their opportunities to establish meaningful relationships with non-conationals. In some cases, socializing with co-nationals was a retreat after negative or ineffective social experiences, and a means to fulfill their needs of social support.

In the international strategic plan, the first objective of Experience is to "ensure inclusion of international students into the campus community; support them in their pursuit of their academic, personal, and professional goals; facilitate lasting relationships for international students with their Canadian peers, the university, the City of Edmonton, the Province of Alberta, and Canada" (UAI, 2019, p. 5). It is apparent that the university has realized that international students require not only academic support but also personal and social support. The university intends to help students "build lifelong friendships and networks" and "gain independence and personal development" (UAI, 2019, p. 5). However, it is not clear how the university plans to implement this objective.

The university appears to recognize the value and benefits of supporting international students to build social networks and long-term relationships. The findings of this study suggests that positive and adequate social supports help international students cope with difficulties in their academic and personal lives, reduce stress when adapting to a new environment, improve their professional performance and life experiences. On the other hand, strong social networks benefit the academic and economic growth of the university. International students contribute to the cultural and social diversity of the campus and the community. They also enrich the learning experience of domestic students by exposing them to different perspectives and cultures. Moreover, positive academic and personal experiences of international students help universities strengthen their international reputation and reinforce their connections with international alumni, which may lead to potential collaboration opportunities.

Advice/guidance

Vaux (1988) explained advice/guidance social support as being elicited by specific questions, such as "What am I going to do?" (p. 140) and including advice regarding the title of a

book that may be helpful to read or advice on how to handle certain situations. The university's role in providing advice/guidance is very important for graduate students. Activities and events related to their academic life, immigration, and career – including workshops, retreats, and conferences – were relatively popular among the participants. Although the range of affordances for advice and guidance included the international centre, the faculty of graduate studies, faculty and department offices, and supervisors to provide information on topics including their courses, thesis, conferences, immigration, and career, some participants still indicated a desire for more academic events customized for graduate students like themselves.

Advice/guidance support can affect social network development directly and indirectly. The university can provide workshops and seminars that answer questions, such as "how to enhance intercultural communication skills in Canada?" or "how to build social networks in Canada?" and provide advice regarding how to make friends or expand social circles. The participants' social networks can also be influenced by advice/guidance support indirectly. Some popular academic activities, such as immigration workshops and department conferences and retreats can provide social interaction opportunities. Attendees may encounter other students with similar goals or interests, such as immigration and research interests, which can lead to more communication and interaction.

The university provides international students with information regarding their academic life on various levels; however, in terms of advice and guidance related to socializing, including how to build social relationships, none of the participants mentioned workshops or other advisory activities to help them communicate interculturally or establish social networks. Although international students can obtain academic information through various means and events, the participants did not feel that these events addressed the important topic of advice

related to expanding their social circle. Thus, the university appears not to offer opportunities for international students to learn explicitly about how to communicate cross-culturally and build relationships with non-conationals. Providing information on socialization might be beneficial to international graduate students, especially those who have not had positive experiences in making social connections. It would also be beneficial to provide opportunities for international students to discuss this issue with people who may offer guidance, such as senior students, counsellors, student advisors, etc.

Beyond Happiness: Meaningfulness in Social Activities

In the previous section, I used Vaux et al.'s (1987) framework to discuss different forms of social supports as they apply to the findings of this study. In this section, I discuss the concept of meaningfulness in relation to the participants' experiences. Whereas social supports address needs and interpersonal benefits that are provided through relationships, meaningfulness focuses on our motivations for seeking connections with others in our search for fulfillment.

"Meaning" and "meaningful" are terms that were mentioned repeatedly by the participants. The concept of meaningfulness can be considered one of the most important factors that affected the participants' perceptions of the activities and events that were provided by the university. It was a key criterion when they evaluated the supports they received from the university. Participants also drew a distinction between activities being pleasurable and meaningful. For example, one of the participants, Gui, said that how much fun she derived from an event was not the most important thing for her; rather, what mattered was how meaningful it was. When the participants considered or evaluated an activity, event, or support, they indicated that they would think of how relevant or helpful these opportunities were to their study, research, future life (work and immigration), and their social circle (age group and common ground). If the

supports, activities, or events were judged to be relevant to their study, beneficial to their research, future career, and life, or helpful for meeting people with a similar background, they would consider them meaningful; otherwise, they might consider them not to be worthwhile if they did not serve any of these purposes.

Gui, for example, considered some activities to be valuable not because of "how happy" they made her, but because of how helpful they could be for her "future and academic study" and how "meaningful" they were. She recounted that one of the events she had enjoyed the most was a mini conference organized by her supervisor and other faculty members in her field. Compared with a longer conference hosted by her department, which might potentially offer more opportunities for interaction and networking, Gui emphasized that the value of the mini conference event was its relevance to her research interests compared to the conference, where the topics were "too miscellaneous". At the mini conference event, she gave a presentation and was able to practice skills that were "very helpful in the long-term", such as presenting, receiving feedback, and communicating with others as a young scholar under "formal social circumstances".

Jian is another student who mentioned "meaning". He described events he attended that were organized by the Chinese student association as "meaningless" because those events usually involved a large number of undergraduate students, few interactions, and topics or activities that he was not interested in. What he found valuable, on the other hand, were the immigration workshops that he attended. Jian also felt it was easier for him to relate to Chinese students, especially in his department, because they share similar experiences and concerns. Nevertheless, when he talked to domestic people, he felt that they worried about different things, had different concerns and could not be helpful to his own life.

Although Na, Tou, Bing, and Peng did not explicitly use the terms “meaning” or “relevance”, all implied that these were important elements in their social lives. For example, Na contrasted her experiences at a Research Expo and a bowling night event. She described how, at bowling, she could only engage in small talk; whereas, at the research event, she could discuss professional and academic topics. She also noted that there was only one other graduate student at the bowling event, which suggests different needs and different sources of meaningfulness among graduate students compared with undergraduates. Tou similarly mentioned that he did not enjoy the “going to the bar” social events organized by his department’s social committee because they could not help him expand his circle further and he did not see how “joining that event will change anything.” For Bing, the most enjoyable events involved working closely and directly with others on activities such as meetings, assignments, and presentations. In Peng’s case, he emphasized that his doctoral program was the core and the purpose of his life in Canada and how he suffered in his personal life when he experiences difficulties in his studies. Therefore, it was evident that the participants prioritized events with academic or professional elements, rather than activities that were purely and superficially for “fun”.

What is considered meaningful and the attainment of meaningfulness are not solely matters of personal preference, but are influenced by ecological factors as well. As new members of a foreign community, international students’ concept of meaning is shaped by both their personal experiences and the affordances of the new environment. For international students, many ecological factors remind them of their identities. Such factors include differential fees, limited access to resources, different needs in life, etc. The pursuit of academic skills and success, permanent residency, and professional connections can help to reinforce their membership in the new community and contribute to a sense of meaningfulness.

In further discussing the role of meaningfulness, I will use a framework from Smith (2017). Although primarily a journalist who writes for the general public, Smith draws on academic works from the fields of psychology, philosophy, and literature to write about the human experience. Her book "The power of meaning: Crafting a life that matters" is firmly rooted in the academic sub-discipline of positive psychology, which is the study of positive emotions and individuals' strengths and potential (Seligman, 2002). Smith's framework is based on research in positive psychology, including work by Seligman (2002) and Baumeister and et al. (2013). According to Seligman (2002), positive psychological experiences involve a hierarchy that extends upward from pleasure and gratification to strength and virtue, and culminates in fulfillment based on meaning and purpose. Baumeister et al. (2013) found that meaning (separate from happiness) is not connected with whether one is healthy, wealthy, or comfortable in life, while happiness (separate from meaning) is.

Smith's (2017) framework encapsulates and summarizes insights such as these from positive psychology. According to the framework, the cultivation of meaning involves four key pillars: belonging, purpose, storytelling, and transcendence. I will use Smith's (2017) four pillars to structure the following discussion of why seeking meaning was so important to the international student participants in this study and how their search for meaning was intertwined with the university ecosystem. Since the ecology of the university is influential in international students' social lives, how the university might improve the ecology and increase the meaningfulness of international students' lives in these four aspects will also be further discussed.

Belonging

A sense of belonging is a key driver in meaningful lives, since meaningfulness lies in the nexus of our relationships (Smith, 2017). Thus, people who feel a sense of belonging in their family, community, school, or elsewhere tend to believe life is more worth living (Smith, 2017). "We all need to feel understood, recognized, and affirmed by our friends, family members, and romantic partners," Smith (2017) writes, "we all need to find our tribe . . . where we belong" (p. 73).

The findings of this study also point to belonging as a key criterion for students to gain positive perceptions of the support provided by the university. The participants' sense of belonging was influenced by the ecology. Some found belonging through having family members with them in Canada, but others relied on shared spaces and shared activities as a source of belonging. These ecological factors provided memberships to the participants. Peng, for example, emphasized how important his campus office space was for providing him with a sense of belonging. He described his experience of losing and, only much later, regaining his office. When his department was merged with other departments, he lost his office space and felt that he "had no place to go". He indicated that, during this period, he was even resistant to going to the university. He had lost his sense of identity and belonging at the university and found that "the bond with the university was suddenly broken." Fortunately, he found that bond somewhere else, through a badminton group organized by a science lab. He considered badminton his favourite and most enjoyable activity and felt a sense of involvement with the group even though he was not a member of the lab. He felt that it did not matter where he was from as long as he could play badminton. The badminton club was not connected to his doctoral study, but it provided Peng with membership and a sense of belonging and helped him go through a difficult

time. After 2 years, he finally received a new office space and resumed building social and professional relationships with other Ph.D. students.

Gui also shared some experiences of not feeling involved or satisfied. Trivia in her department made her feel like a fool who “knows nothing”. She described the experience using terms such as “useless” and even “neglected”. Since the event did not provide her with “a sense of involvement”, she indicated that she would not choose to participate in that kind of activity again. Gui also mentioned that in the social events organized by the residence service, the process of small talk, such as saying “hello” and asking “where are you from”, did not give her a sense of “satisfaction”. She felt that those activities could not offer her the opportunity to share her knowledge or skills or help her build connections with the group. On the other hand, departmental retreats held in Banff or Jasper were occasions where she could meet new students, reconnect with old friends, learn about the culture of the faculty, and bond with others. These events were a positive experience for her since she could share and gain knowledge and further build connections with the group. Bing believed that the reason she enjoyed collaborating with others the most is that she felt it helped her to become more “involved”.

To summarize, a sense of belonging and membership were important for the participants to feel a sense of meaningfulness. The opportunities to share and gain knowledge, skills, and understanding were important for them to gain membership and a sense of belonging. That is why the participants were generally left feeling dissatisfied by one-time social events, such as a BBQ and bowling night organized by the university residence or a social evening at a bar. They hoped to share their thoughts and stories. They wanted to be heard, and not just listened to. Failing in a trivia might be considered as disqualification from belonging because you do not know what other members know. Therefore, the department GSAs, badminton club, and choir

provided more satisfying forms of belonging since the students were recognized and their membership could be affirmed weekly.

If we are all looking for our community, the university is the leader of it. It is a symbol of authority and a provider. We all want to be recognized and affirmed, so that our identity is assured. We also want to be seen and even taken care of to some extent. Since many international students come to Canada without family, they may feel a sense of invisibility and a lack of security at some points in time. Therefore, losing access to the community affordances such as an office space can signify that "you are on your own now"; whereas, access to meaningful spaces and events signifies "I am being paid attention to". It is possible that the participants' emphasis on relevance when talking about events and gatherings was tied to their need to become part of the (academic) community and feel that they belong to this "foreign" society. They are sustained by their belief that, eventually, they can have a fulfilling life and whatever they have sacrificed to study and live in Canada is going to be worth it.

Purpose

Purpose is about the goals that drive and motivate us (Smith, 2017). International students come to Canada with a main and essential purpose which is to achieve their academic goals and complete their programs, and this is probably even more important for doctoral students. This purpose is the core of the meaning of their life in Canada for at least a few years. It was evident from the participants' stories that they bore this academic purpose in their minds and thought about it wherever they went. It even guided their social lives and decisions about whether social events were worthwhile. The predicament for international students is that, because they are not familiar with Canadian culture and not well-connected socially, it is easy for them to limit their landscape to the university and their academic purpose. Thus, they can shelter

themselves from the affordances of the broader community. Nonetheless, the university is potentially a major provider of cultural and social capital which can help them to widen their horizons.

According to Smith (2017), the key to purpose is using your strengths to serve others and this is highly relevant to the volunteer culture of Canada. Several participants mentioned their volunteer experience and the importance of volunteer experience to them. In some cases, the volunteer or co-op experience was linked with their academic purpose, and was also beneficial to the long-term goal and the purpose of the bigger picture of their life. The university has a potentially important role to play in promoting the volunteer culture of Canada, and providing more volunteer, internship, and co-op opportunities to graduate students. Such opportunities would allow them to use their strength to serve others. Furthermore, they might gain a better understanding of the local culture, more working experience, and more opportunities to interact with other ethnic groups and expand their circle.

The sense of purpose can also be shaped by the ecology. If an individual's life and work settings are constrained to the university – for example, living on campus, studying at the office or library, and working at the lab or office – it is difficult for the individual to connect with a purpose other than their academic goals. An environment that offers affordances that draw students' attention to things beyond academia, such as helping people and serving the community, may help students to develop or expand their concept of purpose in Canada. As mentioned above, these affordances benefit students in the long term and help them develop communication skills, social skills, and social networks.

Storytelling

Storytelling helps people create meaning because it allows them to build a narrative of their lives and further edit and interpret it (Smith, 2017). When "we create a unified whole", we "understand our lives as coherent" (Smith, 2017, p. 104), which also helps us to define our identity, and "understand who we are and how we got that way" (p. 104). Storytelling is also important when we want to understand each other and build connections. For example, "when we want people to understand us, we share our story or parts of it with them; when we want to know who another person is, we ask them to share part of their story in turn" (Smith, 2017, p. 107). Moreover, reflecting on how they came to be themselves, and how their story may continue in the future, can help people find meaning (Smith, 2017).

Stories are shaped by both the participants' individual experiences and the ecology. There are not many opportunities for Chinese international students to tell their stories. Students' narratives may be affected by the different settings of the storytelling, such as writing the stories in their dissertations, sharing the stories with friends or families, and presenting them in a conference. Some graduate students may need to think about sharing their stories of life when they work on their dissertation. Until then, most Chinese graduate students may not have ever considered their lives as stories, let alone shared them with others. Thus, their stories may remain within them and untold. One of my own hopes as a researcher is for this study to have provided an opportunity for some doctoral students to share their life stories and their experiences, which may, in turn, inspire others.

Stories illuminate connections between students and their environment as well. A story contains settings, people, and relationships. For example, when the participants shared their stories in the interviews, they spoke of various layers of the settings in their lives, from the

closest to the broadest. They talked about their families, friends, supervisors, staff and the university and how things have changed during the past years. Their stories were affected by, but also reflected, the ecology.

It is safe to say that international graduate students' time in Canada will be one of the most important experiences in their lives, and how they tell the story is not just about their past, but also about their present and future. While international graduate students are highly focused on their studies and the near future, they also look beyond. This period of life in Canada is an important scene in the story of their life and it can help them understand the world and their place within it. Their time at a Canadian university will impact their whole story and their future.

Attaining a Ph.D. includes a process of training how we think, and the university has a potential role to play in helping international students learn how to reflect on creating, editing, and transforming the story of their lives, which might be especially important to Chinese international students since autobiography does not have a strong root in the tradition of Chinese culture. The university could also create an environment in which students might be able to build and share their stories through different methods and with various groups. Hopefully, through sharing their stories, international students can reciprocally gain more understanding of other people and Canadian culture, and build more connections with others.

Transcendence

Smith (2017) defines "transcend" as "to go beyond" or "to climb", and a transcendent experience is "one in which we feel that we have risen above the everyday world to experience a higher reality" (p. 131). People who have a transcendent experience would reduce their self-focus and connect with others and focus on things surrounding them (Smith, 2017). In this study, the doctoral students' experiences in Canada are potentially transcendent, but transcendence, and

thus a sense of meaningfulness, is hindered by the immediate need to focus on themselves and their academic work. By ignoring the things surrounding them and not taking up what the environment has offered them, students may miss opportunities to be transcendent. As mentioned previously, affordances are born out of the *interactions* between an individual and the environment.

It should not be surprising for a doctoral student to feel small or insignificant or self-lost in the academic world, and it is difficult to look beyond their academic goals. Perhaps every doctoral student has thought about why they are doing what they are doing once in their Ph.D. program, especially when they are facing difficulties. One of the reasons for such thoughts may be that they want to achieve transcendence through their Ph.D. program. It could mean becoming a better person or attaining the next level.

International students' pursuit of a Ph.D. degree is a personal matter but also shaped by the ecology. It is worthwhile to consider whether the university can encourage students to examine their Ph.D. program from a different perspective—one of being on the way to a different level of thinking and a different way of seeing things, such that they would be part of the world and contributing to something bigger than themselves, their supervisors, the departments, and even the university itself. An environment with these affordances would bring more meaning to their life as doctoral students. Moreover, with this sense of awe and openness, they might reduce their self-focus and feel more connected to different cultures and people with various backgrounds.

International Graduate Students' Search for Meaning

Seeking meaning in life and a sense of belonging in a community are basic psychological human needs. The experiences described and recounted by the participants greatly reflect these

needs. Most international graduate students who move to a new country to pursue an academic life lose direct access to the social connections they had in their home countries. After satisfying their most basic needs for food and accommodation, they start building new social networks to fulfill their psychological needs in a new ecological setting with affordances that may be partly unfamiliar. The stories of the participants of this study indicate that meaningfulness and a sense of belonging were among their most important psychological needs.

For many international Ph.D. students, cultural learning and socializing are not their priorities. Already overwhelmed by finishing their program and learning about their academic field, they may not be focused on learning about the local culture or socializing with people from other groups. Furthermore, as one participant stated, learning about daily life in a foreign country might be even more challenging than reading academic articles. Therefore, it is not effortless for them to learn about culture, especially when so much effort is already directed toward their courses and research.

Despite the focus on their studies, the participants were seeking not only academic fulfillment but also opportunities for meaningful social connections. They envisioned building diverse and lasting friendships, both within and beyond academic circles. These desired relationships could contribute to a sense of belonging, support, and personal growth throughout their university experience and beyond. The search for meaning and opportunity extends beyond the academic realm, reflecting a holistic view of student well-being.

Understanding these aspirations provides valuable insights into international students' expectations and experiences. It emphasizes the need for tailored social support initiatives that acknowledge the diverse nature of these aspirations. The university's challenge lies in creating

an environment that not only facilitates academic success but also nurtures the development of fulfilling social networks, fostering a sense of community and purpose among students.

However, the predicament of international doctoral students is the centrality of their academic goals within their life in Canada. This situation can be counterproductive for them in the long term, and even in the short term. The university symbolizes so many things for international students: an embodiment of their purpose in life; the reason they came to Canada; a starting and finishing point in their journey; a signal of their meaning; the arena of their transcendence; the main scene of the current story of their life. It is understandable that the university focuses primarily on helping students achieve their academic goals, but it is also clear that the university experience encompasses much more. In the next section, I will consider how the university might further support students' basic psychological human needs, such as enhancing their sense of belonging and gaining meaningfulness, especially given the university's role in designing the plans and activities that contribute to international graduate students' ecology.

Significance and Implications of this Study

The significance of this study stems from the value of knowing and understanding international students' experiences and obtaining insights into the questions that guided this study. As stated in Chapter One, the overarching research question was: What are Chinese international students' experiences of building social networks in a Canadian university? Addressing the complexity of this question also involved considering the following sub-questions:

a) To what extent did the students' social networks meet their needs?

b) How did the students experience the supports offered by the university?

c) How might universities better assist students in finding the social supports they need to thrive in a new cultural setting?

Based on a qualitative analysis of interviews and a review of official university documents, I have pointed to ways in which the environment had an important impact on the development of the participants' social networks and how their social networks were shaped by their interactions with their environment. The findings indicate that certain settings, such as graduate student offices, were crucial for participants to build their social networks in Canada, especially at the beginning of their program. It was also found that, as doctoral students, the participants sought not only happiness but also meaning in their social activities. Their perception of social activities was related to their concepts of meaning, which were influenced by the environment as well. In further discussing the significance and implications of this study, I will briefly consider each of the sub-questions that guided the research.

a) To what extent did the students' social networks meet their needs?

Social connection is a basic human need, and developing social networks is especially important for international students since most of them start their new life in Canada with few social relationships that are readily available. For the participants, socializing was important for both their personal lives and academic pursuits. A university is a gigantic organization that involves hundreds or even thousands of people; however, its academic elements are almost always the focus and social elements can be overlooked. When the participants of this study considered the universities where they wanted to enrol to pursue their doctoral degrees, they gathered information on the ranking and reputation of the university, the labs, the funding, the research interests of the professors, and even the location and weather, but not social

opportunities. Socializing and the availability of social connections are indeed hard to measure, and these factors are not typically part of international university ranking systems.

Socializing is often considered a personal matter but given the emphasis on university rankings and students' own focus on their academic pursuits, the participants indicated foremost that they wanted to build good relationships with their supervisors and instructors, as they knew this was important for their study. Some of the participants had good relationships with their supervisors and were satisfied with their program. One participant who had to transfer to a new supervisor recounted how disruptive this was to his program. Compared to undergraduate and master's students, doctoral students usually spend more time in their programs and have more collaboration with and need more support from their supervisors. Therefore, building connections within the department, especially with their supervisors, is important not only in terms of academic pursuits, but in terms of social relationships as well.

Good relationships benefit all students in the long term. Some participants had close relationships with their colleagues and their friendships lasted. One participant mentioned that socializing with students from different ethnic groups would be beneficial for his future job since it would help him to get along with colleagues in the workplace. This echoes the findings of research on internationalization (Guruz, 2011; Knight, 2008) that international study experience can increase students' intercultural competencies and help them compete in a global market, which is one of the ecological forces that drive people to seek out international university experiences in the first place (Guruz, 2011). Social skills can not only benefit students in their academic and career pursuits but also equip them for life.

b) How did the students experience the supports offered by the university?

It is evident that the university realizes that international students require not only academic support but also personal and social supports. The International Strategic Plan indicates that the university intends to help students "build lifelong friendships and networks" and "gain independence and personal development" (UAI, 2019, p. 5). In addition, the university shows a willingness to broaden the support of the international student community and coordinate internal and external stakeholders. It is a positive signal that the university plans to enhance intercultural learning for faculty and staff, and it recognizes the crucial role that faculty and staff play in the international student experience. The university also plans to ensure the active participation of international students in intercultural learning opportunities, which may indicate an awareness that some international students are not satisfied with or have not actively participated in the events that have been provided. This echoes some comments from participants that some faculty members and staff, especially in departments that have fewer international students, lacked experience in supporting international students, and some events were not satisfying. Without specific strategies to operationalize the objective of building friendships and networks, it is unclear exactly how the university will support international students in building friendships and developing social networks.

The findings from this study indicate that, on the whole, participants expressed satisfaction with their academic experiences. However, some participants expressed a desire for more tailored support, particularly geared towards graduate students, and responsive to the particular needs of those pursuing doctoral degrees. Furthermore, this study suggests that the university has yet to fully realize its objective of fostering lifelong friendships and networks among students. There appears to be a deficiency in direct support for guiding international students in building social connections. Additionally, certain socializing initiatives implemented

by the university were perceived as ineffective by the participants. These insights indicate the need for the university to enhance its support structures to better cater to the diverse needs and expectations of its student body.

The challenges in meeting the aim of fostering lifelong friendships and networks, as identified in the study, can be attributed to several factors: the diverse nature of the student population, resource constraints, potential ineffectiveness of current initiatives, focus on academic supports, and difficulty in evaluation and measurement. Universities often host a diverse student population, including local and international students with varying cultural backgrounds and communication preferences. It can be challenging to create a universal support system that effectively caters to the distinct needs of each student, especially when it comes to building social connections. Even within one ethnic group, students may have various needs and preferences.

The provision of personalized or customized support requires significant resources, including financial investments and personnel dedicated to student services. Universities may face constraints in allocating adequate resources to develop and maintain comprehensive programs that specifically address the social integration needs of different student groups.

The study points out that some of the socializing support provided by the university is perceived as ineffective by participants. This could indicate a mismatch between the implemented strategies and the actual preferences or challenges faced by students in building social networks. Ensuring effective communication channels and feedback mechanisms is crucial for tailoring support initiatives to the actual requirements of the students. Reevaluating and adjusting existing initiatives may be necessary to better align with student expectations.

Universities often prioritize academic support over social support, given the primary mission of providing education. This focus may inadvertently lead to a lack of emphasis on developing effective programs for social integration, contributing to the difficulty in meeting the aim of building lifelong friendships and networks. It may take some time for the university to design and implement strategies in order to achieve the goal.

Another significant factor contributing to the challenge of meeting the aim of supporting international students' social network development is the inherent difficulty in evaluating or measuring the results of social integration initiatives. Unlike academic achievements, which can be quantified through grades and assessments, the outcomes of social support programs are often subjective and qualitative. Establishing clear and measurable benchmarks for success in fostering lifelong friendships and networks can be elusive. This lack of concrete metrics may hinder the ability of the university to assess the effectiveness of its initiatives accurately and make informed adjustments for improvement. Developing reliable evaluation methods that capture the nuanced and multifaceted nature of social connections is crucial for refining strategies and ensuring the success of initiatives aimed at enhancing students' social experiences.

c) How might universities better assist students in finding the social supports they need to thrive in a new cultural setting?

It is gratifying that the university has realized that building lifelong friendships and networks and gaining personal development are important and beneficial for international students, but it remains to be seen how this aim will be fully realized. Universities consist not only of academic elements, but also people, and people should be the purpose of education. Education in skills that encompass personal and social needs would more fully reflect the spirit of the university as articulated in the university's strategic plans and other key documents.

On the one hand, universities have goals and visions in internationalization, but want to keep their traditions on the other hand. According to Lin and Liu (2016), host institutions lack interest in understanding the systems that international students are from and have almost no interest in changing the ways things are done in the host university to make it a more accommodating place for international students. Therefore, institutions may lose an opportunity to learn and engage international students in the first place. In this section, I will discuss how the university can change to better serve the students.

At the Micro and Meso levels, the university should be aware that doctoral students may have different social needs, and it is important for social events to align with students' concepts of meaning. Therefore, when the university designs and evaluates social events, it would be beneficial to assess students' needs, including their concepts of meaning. In other words, events that are designed specifically for graduate students should be based on evidence about graduate students' needs, and there should be a feedback mechanism to determine effectiveness from students' perspectives. For example, some participants in this study indicated that events that are both recreational and academic/professional would engage them more.

More importantly, the university should attend to the Exo and Macro levels, which address a structural and systematic aspects of the university. Based on the International Strategic Plan for the University, some overarching committees have been formed and the university endeavours to further internationalize and support international students. It is a good sign that the public can observe the implementation of the plan by reading UAlberta International's Annual Report. Specific objectives regarding helping international students build friendships and gain personal growth should be provided in future strategic plans and the progress, even only small advances, should be presented in the annual reports. For example, there could be a list of what

activities and events have been provided to international students, with separate mention of services for graduate students.

It is also important for the university to build an international student service system that is more efficient, especially with respect to information sharing and staff training. In China, student service is very centralized, while Canada has a more decentralized model (Lin & Liu, 2016). As recounted by the participants of this study, what is learned by one department or faculty in supporting international students is not always shared with other departments and faculties. If staff or faculty members are not sure how to help international students, it is not clear who they can turn to. Greater coordination of services and information sharing would be beneficial. The university's international student centre should reinforce its role as a central coordinating hub in providing services. It is also important to strengthen the communication between various student service departments. There should be clear pathways for units to share their experience and expertise in supporting international students. Because of the size of staff in the university, if regular training or meetings for all student service staff are not feasible, there could be a newsletter for units to share what they have learned, allowing staff to address problems more effectively when they encounter similar issues.

The university might need to increase the transparency of the use of the differential fees from international students. This would help the community to better understand the economic contribution of international students and to monitor how the collected funds are used. It is understandable that not all of these funds will be used to support international students. However, a fair portion of the fee should be allocated to the provision of international student services. Therefore, UA International's Annual Report should include the amount of

international differential fees collected and the percentage and specific purposes of the fees that are spent on international student supports.

Since both the university and the government emphasize the career development of international students, it would benefit students if career development plans could be discussed at the beginning of their program, as some participants advised in their interviews. By proactively addressing career development at the beginning of their studies, universities can better support these students in achieving their professional goals. Doctoral students also have different career development needs from undergraduate and master students. It would be beneficial if international doctoral students had the opportunities to discuss their career development plans with specialists from the career centre or with their supervisors at an early stage of their studies. They should also have the opportunities to review their plans after their candidacy exam and before they graduate.

I also suggest that discussions and considerations of culture should be thorough and far reaching. More in-depth treatment of culture may benefit students in both the short term and long term and in both their professional and personal lives. Graduate students from China who completed their undergraduate program in China face many cultural differences when they study at Canadian universities. These differences may affect students' expectations and perceptions of the role of a university. One of these differences is the openness and accessibility of university campuses. In China, most universities have walls, restricted access, and a curfew. Students need to show their ID to enter the campus; whereas, in Canada, most universities are open to the public and have few restrictions for students.

Another difference is the availability and affordability of services and amenities on campus. In China, because most students live on campus and are not encouraged to leave for a

long time, universities provide cheap accommodations, affordable meals, grocery stores, gyms, etc. to meet their basic needs. Students can study and live on campus without having to go outside. In Canada, however, most universities only offer limited services and amenities on campus. Students often need to find off-campus housing, food options, transportation, etc., which can be more expensive and inconvenient.

In Canada, students need to connect with society. This is easier for domestic students but can be more challenging for Chinese international students. This is not only due to language and social barriers but also due to the mindsets formed from their learning and life experiences in China. International students may be unable "to leave China in their minds." Subconsciously, they may think that connecting with society is unnecessary or even discouraged, especially at the beginning of their program. Universities should be more aware of these differences and bring them to the attention of international students at the very beginning of their studies.

I hope these recommendations will help create awareness of the differences between students' experiences and student services in China and Canada, and that this awareness will lead to a willingness on the part of host institutions to improve their international student services instead of expecting international students to adjust to a system that is taken for granted.

Conclusion

This study challenges conventional ideas from the literature about international students' relationship development as a personal choice. Traditionally, scholars have tended to discuss how internal factors, such as language proficiency (Kodama, 2007; Liu, 2011; Mori, 2000; Ranta & Meckelborg, 2013; Zeng, 2010), personality (Tanaka, 2007; Yashima et al., 2018), and motivation (Gao, 2006; Khatib & Nourzadeh, 2015) affected students' willingness to use the English language and further their social behaviours.

These studies have tended to focus on undergraduate students and have not typically included a thorough analysis of contextual factors. By employing an Ecological Perspective, this study addresses some gaps in the connections between international doctoral students' social network development and the environment. It examined how the environment affected students' social network development and focused on Chinese doctoral students. Furthermore, it provides a perspective from the point of view of the university by including a review of university documents. In doing so, this thesis demonstrates how the environment influenced and shaped the relationship-building of the participants and indicates why social network development is crucial to both personal lives and academic pursuits.

International students embark on a transformative journey, leaving behind their familiar social supports to navigate the challenges of inhabiting a new country, new language, and new culture. With varying degrees of success, they construct new social support networks, often surviving and even thriving by utilizing the affordances available to them. It is incumbent upon universities to not only closely examine the affordances that are available within the environments that they offer, but also strive to offer an environment that is rich in affordances and supportive of students' need for social support networks. This process is too important to be left to chance and should be a major concern of all universities that seek to attract international students. This study contributes to this endeavour by investigating the experiences of international students and making their voices heard. The participants did not recount experiences of hopelessness or despair, but they did describe numerous challenges. Their stories clearly show room for improvement in helping Chinese international students to find the social supports they need and to find meaningful experiences in Canadian universities.

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