



January 2019

The Impact Of Support Areas On The Academic Success Of International Students In Community Colleges

Taiwo Olubusoye Soetan

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The Impact of Support Areas on the Academic Success of International Students in
Community Colleges

by

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A Dissertation

Submitted to the Graduate Faculty
Department of Educational Leadership

of the

University of North Dakota

in partial fulfillment of the requirements

for the degree of

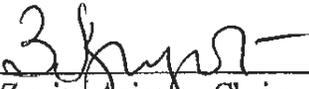
Doctor of Philosophy

Grand Forks, North Dakota

August
2019

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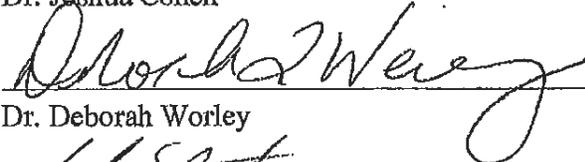
This dissertation, submitted by Taiwo Olubusoye Soetan in partial fulfillment of the requirements for the Degree of Doctor of Philosophy from the University of North Dakota, has been read by the Faculty Advisory Committee under whom the work has been done and is hereby approved.



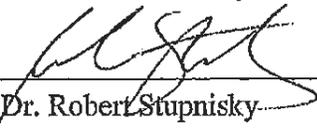
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7/19/19
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PERMISSION

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in Community Colleges

Department Educational Leadership

Degree Doctor of Philosophy

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Taiwo Olubusoye Soetan
July, 2019

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ACKNOWLEDGEMENTS

There are so many individuals to send my thanks that space will not permit me to name them all within this section but I will try my best. I am very grateful to my colleagues and supporters at Red River College including those who have retired who provided encouragement and support to me in this journey. I thank Mrs. Carol Girling, Mr. Graham Thomson, Mr. David Thomas, Mrs. Isabel Bright, Drs. Tom Harrigan and Deborah Gural, Mr. Adrian Johnson, and MJean-Paul Olivier immensely in that regard.

I wish to express my deep and sincere sense of gratitude to Dr. Zarrina Azizova, my chair and advisor for her supports, encouragement, and direction. I am deeply grateful for the supports and encouragement from my committee, Drs. Joshua Cohen, Deborah Worley, and Robert Stupnisky. Their hard work and efforts really motivated me to ‘keep on keeping on’ during the challenging times I was confronted with throughout this journey. Thank you so much.

A special thank you to all my teachers who taught me during my course work including retired and former faculty, Professors Margi Healy, Daniel Rice, and Dr. David Nguyen for their positive impact and influence. I wish to specially thank as well a retired teacher and mentor, Professor Ed Bruning, who invested enormous time and efforts to support and encourage me in this academic experience. I also thank all my cohort colleagues. Our rapports and camaraderie have been truly prolific and productive.

I thank my family, friends, and well-wishers for their encouragement, understanding, and supports throughout the period of this journey as well. In that regard, I wish to thank especially Mr. ‘Wole Mohammed, Mr. Richard Ebofin, Mr. and Mrs. Samuel Odunayo, and my elder sister, Oludayo Kolade.

Finally, I thank God Almighty, the giver of life for His abundant grace and strength that He generously made available to me in this journey. To my children, Eniola and Afolabi, thank you. You have both been wonderful, understanding, and supportive of my endeavours, and I couldn’t have completed this journey without your cooperation. I love you dearly.

To my late parents, Chief and Mrs. Albert Soetan for inculcating in my siblings including my twin brother and I while growing up the value and importance of education. Indeed, one of their favorite quotes “Education must be given utmost priority attention, always” continues to fuel my inspiration, passion, and drive till date.

To my late wife, Abimbola, for her supports in my struggles to obtain my masters’ degrees without which the pursuit of a doctoral degree would not have been possible for me.

And to my children, Eniola and Afolabi,

For your sacrifices, supports, encouragement, understanding, company, and companionship in this endeavor and my other endeavors.

ABSTRACT

This study examined the various types of support areas for international students in community colleges that help them achieve academic success in their studies. The study considers the impact of these support areas on international students' academic success in terms of their self-reported Grade Point Average (GPA) and perceived success using the Bronfenbrenner's theory of human development at the micro-, meso-, and macro- levels.

A quantitative study was conducted to measure the impact of these support areas on international students' academic success measured in terms of their self-reported GPA and perceived success. A target sample size of 399 international students was recruited to participate in a hard copy, one-on-one survey. These students were current international students at a large community college in Western Canada. It is expected that this study would help to determine the impact of the support areas on the academic success of international students in community colleges.

The results of this study showed that international students' support areas at the micro-, meso-, and macro-levels were all strongly related to their academic success in terms of their self-reported GPA and perceived success. The federal government's strategy of increasing international students' presence in Canada as a way of addressing the aging work force and population challenge in Canada would be more successful with increased investments in these support areas. Indeed, Government rhetoric at all levels and an increased investments in these important support areas are essential in ensuring the academic success of international students, and making Canada a top and competitive destination of choice for international students.

Keywords: International students, Support areas, Community college, Bronfenbrenner, Canada

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CHAPTER I

INTRODUCTION

Community colleges in Canada belong to the Colleges and Institutes Canada (CICan) formerly Association of Canadian Community Colleges (ACCC). CICan is the national, voluntary membership organization representing publicly supported colleges, institutes, CEGEPS i.e. *Collège d'enseignement général et professionnel*, (in Quebec), and polytechnics in Canada, and internationally. It is the umbrella body for Canada's community colleges and institutes serving domestic, indigenous and international students spread across the country with over 420 campuses in both urban and rural areas (CICan, n.d). Community colleges are sometimes called institutes, institutes of technology, technical colleges, regional colleges, university colleges or colleges.

In Canada, community colleges play important roles in supporting economic development and innovation based on their ties and links to their communities (CICan, n.d; Universities Canada, 2015). These higher education institutions also provide over 10,000 different higher education and training programs to a wide variety of students ranging from high school graduates and adult learners to international and indigenous students and university graduates including professional and on-going training for professionals in the work force in both the private and public sectors of the economy (CICan, n.d).

Community colleges in Canada play a unique role and fulfil a unique responsibility in Canadian higher education system through the combination of high quality higher education programs and disciplines that are provided to meet industry needs (CICan, n.d; Universities Canada, 2015). Academic programs are usually developed through industry connections and collaborations, and internship opportunities. Programs range from health, business, technology,

trades, academic upgrading, university preparation, applied and creative arts, hospitality and social sciences (CICan, n.d; Atlantic Colleges Atlantique, ACA, 2018).

Asian Development Bank (ADB, 2015) reported that in Canada, community colleges continue to play an important role “in increasing social mobility, in that they make higher education available to a large part of the population, thereby contributing to narrowing of educational and social inequality” (p. 52). The authors of the report further identified five primary factors that contribute to the success of Canadian community colleges:

- 1) Close partnerships with industry, employers, and the community in which they are located;
- 2) Open access;
- 3) A focus on applied learning and research;
- 4) Development of essential and entrepreneurial skills in addition to technological and job-specific skills; and,
- 5) Provision of support to students through student service centers.

Furthermore, community colleges are government regulated and the higher education programs that they offer are one to two year academic and pre-professional certificates, diplomas, two to three year associate degrees, four year bachelor’s degrees, post graduate certificate (PGC), post graduate diploma (PGD) programs, and master’s degree programs (CICan, n.d). This study considered the impact of support areas on the academic success of international students in community colleges using the Bronfenbrenner theory of human development.

Partnerships between Community Colleges and Universities in Canada

Universities Canada (2015) stated that the unique functions of community colleges in Canada are in the areas of community economic development, applied research, and industry informed the partnership arrangement between several community colleges and universities in Canada. According to their report, examples of such partnerships include McMaster University and Mohawk College, which provide high school and college students with university-level, skills-based engineering technology solution, Queens University and St. Lawrence College, where students test solar panels in diverse Canadian environments, Western University and Fanshawe College, where students collaborate on arts and culture projects, a joint partnership between University of Alberta and Yukon College for a Bachelor of Science degree that prepares graduates for careers in the North, and a partnership between Trent University and Fleming College on environmental science research to find a solution to waste water.

Internationalization in Canada

The Canadian Bureau of International Education (CBIE, 2016) report revealed that internationalization has become a central pillar of Canadian education. According to the report, several provinces in Canada have developed international education strategies to complement the federal government's initiatives such as the Canada's first federal international education strategy. Regarding the internationalization strategy of the Canadian government, an expert advisory panel on international education was set up by the government in 2011 (Shaw, 2014). The panel in its 2012 report revealed that international education benefits Canada's diverse communities. Final report of the Advisory Panel on Canada's International Education (2013) defined internationalization as "the process of bringing an international dimension into the teaching, research and service activities of Canadian institutions" (p. 8). This definition,

according to Shaw (2014), is similar to the definition of internationalization by Knight (2006) as “the process of integrating an international, intercultural or global dimension into the purpose functions or delivery of post-secondary education” (p. 213).

The Advisory Panel’s report further stated that the survey of higher education institutions in Canada revealed that the top three priorities of these institutions were:

- 1) International students’ recruitment;
- 2) Increasing the number of Canadian students who are engaged in education abroad;
- and,
- 3) The internationalization at home in Canada including the internationalization of the curriculum.

The impact of the internationalization of higher education by the Canadian government, with the active support of provincial/territorial governments has led to the increasing enrolment of international students in Canada’s higher education institutions. CBIE (2016) stated that over 66, 000 international students studied at the community college level out of the over 353, 000 international students that studied at all levels of educational study in Canada in 2015. The report further stated that that figure was a 92% increase in international students’ population between 2008 and 2015.

In addition to the above, Global Affairs Canada (GAC, 2018) stated that the 2018 report of Immigration, Refugee and Citizenship Canada (IRCC) demonstrated that there were 494, 525 international students at all levels of study in Canada in 2017. The report further stated that the figure, which already exceeded the 450, 000 target of international students in Canada by 2022 by the federal government was a 20% increase over the previous year and 119% increase between 2010 and 2017.

International Students in Canada

CBIE (2016) reported that international students in Canada form an important aspect of the internationalization of Canadian higher education institutions and the Canadian society. These international students continue to support the excellence and innovation of Canada's education and cultural landscape. Based on recent happenings in the world such as Brexit and the rhetoric from the U.S government, Canada may continue to attract more international students (Globe & Mail, 2017; Civinini, 2018).

Independent News (2016), a U.K news outlet, reported that, according to their survey, 32% of international students studying in the U.K indicated that they would choose Canada as an alternative study destination following their uncertainty regarding the exit of the U.K from the European Union (EU). The report further highlighted the strength of Canada such as a strong educational reputation, most affordable destination for international students at the higher education level among the top destinations of the U.S, the U.K, and Australia as part of the reasons why Canada continues to be an attractive choice to international students. Also, the American Association of College Registrar and Admission Officers (AACRAO, 2017) reported that the political climate in the U.S has led to a decline of international students. The report which included a survey that was conducted in over 250 colleges and universities in the U.S revealed a drop in the number of applications from international students for fall 2017.

In Canada, however, Globe and Mail's (2017) report showed that the Canadian higher education institutions were in a position to increase the number of their international students. This increase was due to the strategic efforts and initiatives of these institutions in the past three years prior to the conduct of the survey. Furthermore, both international and American students who were studying in the U.S were not exempt from the list of those who continue to come to

Canada to fulfil their academic aspirations and goals according to the report (Globe & Mail 2017).

The reason for the surge in the number of international students to Canada has been attributed to the rising tide of isolationism and exclusion in Europe and in the U.S. Indeed, Civinini (2018) reported that based on study permits issued by IRCC, there were about 495,000 international students in Canada as at December, 2017. That means that Canada has already surpassed her international education strategy goals of hosting 450,000 international students by 2022, five years early.

Impact of International Students in Canada

Scholars noted the economic and non-economic impact of international students on the economy (Trilokekar & Kizilbash, 2013; Adams, Banks, & Olsen, 2011; Paltridge, Maysons, & Schapper, 2012). Tables 1 and 2 below revealed that after accounting for Canadian scholarships and bursaries from the Canadian government, international students spent about \$15.5 billion on tuition, accommodation and discretionary spending in 2016 which translated to \$12.8 billion contribution to Canada's GDP in 2016. According to the GAC (2018), GDP contributions of these international students include both direct and indirect impacts, where firms supplying goods and services to the education services and other sectors are also taken into consideration. Furthermore, international students from India, especially those studying at the community college level, made the most contribution with Ontario accounting for the biggest increase in the number of international students.

Table 1.

Number of International Students and Total Annual Spending in Canada by Province and Territory in 2016 in (\$million)

Province/Territory	All Students	Total Annual Spending (\$M)
Ontario	223,226	\$7,806.8
British Columbia	145,691	\$3,726.6
Quebec	67,534	\$1,887.2
Alberta	30,342	\$823.6
Nova Scotia	14,063	\$413.4
Manitoba	14,298	\$374.8
Saskatchewan	8,063	\$222.6
New Brunswick	5,178	\$136.4
Newfoundland and Labrador	3,227	\$72.6
Prince Edward Island	2,270	\$68.3
Yukon Territory	60	\$1.4
Northwest Territory	19	\$0.4
Nunavut Territory	0	\$0.0

Source: Global Affairs Canada, 2018

Table 2 showed that Ontario, with the highest number of international students, made the largest contribution to Canada's GDP at \$6.3 billion, representing 49.7% of the total \$12.8 billion, followed by British Columbia at \$2.7 billion, representing 21.6%, and Quebec at \$1.6 billion, representing 13.0%. Also, the number of international students' overall spending translated to 168, 861 jobs that were supported by the Canadian economy in 2016. International students' annual spending directly and indirectly contributed \$2.8 billion in tax revenue in Canada in 2016 (GAC, 2018). The GAC report indicated that international students' expenses represent revenue for goods and services from abroad because they are Canadian exports of education services. Furthermore, according to the report, in 2016, long-term international students accounted for 93.4% of the total spending by international students and they contributed \$12.0 billion to Canada's economy, supporting 158,300 jobs.

Table 2.

Combined direct and indirect economic impact of all International Students in Canada, by province and territory in 2016 in (\$Million)

Province/Territory	2016 GDP	2016 Employment (Jobs)
Ontario	\$6,349.4	79,034
British Columbia	\$2,764.1	40,499
Quebec	\$1,664.9	25,102
Alberta	\$945.0	10,094
Nova Scotia	\$318.2	4,378
Manitoba	\$306.3	4,250
Saskatchewan	\$197.1	2,350
New Brunswick	\$122.1	1,650
Newfoundland and Labrador	\$62.9	762
Prince Edward Island	\$44.9	663
Yukon Territory	\$2.0	27
Northwest Territory	\$4.2	21
Nunavut	\$1.1	8
Canada	\$12,783.0	168,865

Source: Global Affairs Canada, 2018

Immigration and International Students in Canada

Canadian immigration regulations that are related to international students have been experiencing some changes since 2005. These changes align with the federal and provincial/territorial governments' efforts in marketing Canadian higher education to the outside world and increasing international students' presence in Canada. For example, in 2006, the federal government in cooperation with the provincial/territorial governments launched the off-campus work permit program for international students (Trilokekar & Kizilbash, 2013). This off-campus permit allows international students to be able to work off-campus in Canada for 20 hours/week during regular academic session after spending six months in Canada. Later, the off-campus work permit was expanded to allow international students to be able to work for 20 hours/week during regular academic session immediately they arrive in Canada. In the past,

international students were not allowed to work off-campus for more than 20 hours/week until after six months.

As Canada continues to rely on immigration to address the challenges of an aging workforce in order to meet the labor market needs, the federal government's policy framework shifted to encouraging international students to immigrate to Canada and grant them residence permits that allow these international students to live and work in Canada when they complete their academic programs. Trilokekar and Kizilbash (2013) noted that in 2007, the Canadian government introduced the Canadian Experience (CE) program in order to make it easier for international students with education and work experience in Canada to apply for permanent residency. In 2008, the Canadian government introduced the Post-Graduation Work Permit (PGWP) as a way of facilitating open work permits for international students who graduate from Canadian colleges and universities to enable them to continue to stay in the country legally even when they are yet to get a job offer.

According to the CBIE (2016), the PGWP offers a three year post-graduation work permit to qualified international students. These students can only apply when they have successfully completed their academic programs. Table 3 showed the number of international students who graduated from Canadian colleges and universities and have obtained the PGWP between 2008 when the program was introduced to 2015 (CBIE, 2016).

Table 3.

Number of Post-Graduation Work Permits Issued

Year	Number
2008	17,815
2009	15,414
2010	17,305
2011	22,676
2012	27,248

2013	33,922
2014	37,338
2015	34,375

Source: CBIE, 2016

The numbers in Table 3 showed a steady increase every year from 2009 till 2014. However, there was a decline in the number of PGWP that was issued in 2015. The CBIE (2016) report averred that the decline may have been due to some of the challenges faced by some of the recipients of the PGWP in which Globe and Mail (2016) report showed that over a third of the PGWP holders worked in low-skilled positions with the median salary less than half of what other post-secondary graduates made. That may have discouraged a number of international students from applying for the PGWP in the following year.

In addition to the above, it may well be a case that the Provincial Nominee Programs (PNP), a program in which provinces nominate international students for permanent residency after they have successfully completed their studies, that was revised about that time to allow international students to apply for permanent residency through the province in which the college or university that they graduated from is located, may have also contributed to the decline in the PGWP application. This is because the PGWP only provides a three year stay to the holders or recipients while the PNP provides a pathway to permanent residency in Canada to successful international students who apply.

Trilokekar and Kizilbash (2013) stated that Canadian embassies and consulates abroad have designed their visa requirements and application process to make it easier for prospective international students to get their visa applications promptly treated in order to reduce wait times while at the same time increasing the number of international student visa application approvals, especially application made from key markets. The key markets, according to the CBIE (2016) report are China, India, Brazil, Nigeria, Mexico, Vietnam, Korea, Africa, Japan, and Russia. The

report also showed that the expedited processing of international students' study visa application has brought a huge relief and encouragement to both students and higher education institutions alike.

Furthermore, the CBIE (2016) report stated that apart from the Express Entry (EE) program that was introduced by the Canadian government to enable qualified international students to apply for permanent residency, the government also introduced a program called "Train & Retain." The aim of the program is to connect international students who are willing and able to stay back in Canada to live and work after their studies with ways to access settlement services to ease their integration. The report further stated that several provincial governments in Canada have introduced programs to attract more international students to their colleges and universities.

Challenges Confronting International Students

The challenges that international students face range from micro-level (individual) to the meso-level (institutional) and the macro-level (government/societal). The support areas of international students at their various community colleges are in response to the challenges that they face. For example, at the micro-level, international students face challenges that are often taken for granted by domestic students i.e. the significant challenges that international students face are not as significant to domestic students because they cope better (Habib, Johannessen, & Ogrim, 2014). These challenges include emotional (i.e. home sickness), psychological (i.e. acculturative stress), personal, family, and academic (Andrade, 2006; Popadiuk & Arthur, 2004; Lin & Yin, 1997; Bai, 2016).

At the meso-level, some of the challenges that international students face are related to social interactions, integration, social network and relationship, and social connectedness (Liu,

2009; McFaul, 2016; Perry, 2016). Some of the challenges that international students face at the macro-level include study and work permits, ability to work legally to support their academic study, acceptance in the local community where their community college campuses are located, and the political rhetoric of the host country government toward international education and international students (Guo & Chase, 2011; Coffey & Perry, 2013; Trilokekar & Kizilbash, 2013).

Support Areas for International Students

As stated above, the support areas of international students in community colleges in Canada range from the micro-level (individual) to the meso-level (institutional) and the macro-level (government/societal). These support areas that cut across the micro-, meso-, and macro-levels include mentorship or pair programs that involve faculty, staff, tutors, roommates, colleagues, course mates, cohort mates, class mates, student association, international education office, immigrant and diversity, and the provincial/territorial and federal government agencies (Andrade, 2006; Tolman, 2017; Guo & Chase, 2011; Mori, 2000). Chapter Two of this manuscript provide a thorough overview of the literature concerning the impact of the programs and services on international students.

Purpose of the Study

The purpose of this study was to examine the impact of the various support areas and/or programs as well as policies that influence international students' academic success. Although Bronfenbrenner (1979) identified four levels that influence an individual's development in his theory of human development, this study focused on only three of these levels i.e. the micro-, meso-, and macro-levels. This is because the exo-level was subsumed in the other levels.

Rationale for the Study

The current literature shows that there is not much research conducted regarding the support areas available to international students in Canadian community colleges and the impact of these support areas on the academic success of these students. This is unlike information available in literature regarding the support areas that are available to international students at the university and graduate school levels and the impact of these support areas on their academic success. The need to understand and determine the impact of support areas on international students at the community college level of post-secondary education informed the reason for this research study. Also, the determination of the impact of the support areas available to international students at the various levels (environments or systems) in which they operate, both on and off campus, on their academic success would require a theoretical framework that is both relevant and applicable to international students at the community college level. That requirement informed the decision to consider the Bronfenbrenner's theory of human development as the theoretical framework for this research study.

Theoretical Framework

Urie Bronfenbrenner (1917-2005) was a Russian born American developmental psychologist. He developed the Bronfenbrenner's theory of human development. He argued in the theory that an individual's environment had an impact on the individual's process of development. He identified four levels (environments or systems) as contributors to an individual's development. These levels are micro-, meso-, exo-, and macro-.

Micro-level

Bronfenbrenner identified the micro-level as the first and most immediate level of the four levels. It encompasses an individual's human relationship, interpersonal interactions, and immediate surroundings. An example of the micro-level would be an international student's relationship with his/her immediate and extended family members, room, course and class mates, faculty, staff, and administrators in his/her college environment.

Meso-level

This level is the second level after the micro-level and it involves the various activities and interactions that take place between an individual and the immediate environment that the individual operates in. For example, this level examines the impact of the relationship that may exist between an international student and college activities such as co-curricular or extra-curricular activities and the impact of this relationship on the international student's academic success. The activities that international students are engaged in at the meso-level are institutional and are often organized or promoted by college administrators, faculty or student association.

Exo-level

The exo-level is the third level that was identified by Bronfenbrenner after the meso-level. This level contains elements of the micro-level that do not affect an individual directly but may have an indirect effect. For example, an international student may suddenly find him/herself in an embarrassing financial situation because his/her parents lost their jobs or have financial challenges that make it difficult or impossible to provide support to the student to enable him/her to continue with his/her academic study. While the student is not directly affected by the job loss

or financial difficulty of his/her parents, the negative impact or effect still robs off on the student's study and ability to achieve academic success.

Macro-level

This is the fourth and outermost level and it is believed to have an all-encompassing effect on an individual. This level includes cultural and societal attitude, beliefs, norms, and practices that impact an individual's development. For example, the policies, programs, and support areas that are provided to international students by the federal, provincial/territorial, and local governments. The government's policies in that regard, for example, the introduction of work permits for international students is also making a number of business organizations to be more receptive to the idea of hiring international students to work for them both when they are still studying in their various community colleges as part-time workers, and upon graduation as full time workers.

The Bronfenbrenner's theory of human development was applied to this study by examining the impact of support areas at the micro-, meso-, and macro-levels on the academic success of international students at the community college level. Each of these levels were examined distinctly and independently. The exo-level was not examined distinctly and independently in this study because that level was subsumed in the other micro-, meso-, and macro-levels.

Application of Theory

There are different support areas that impact international students' academic success at the micro-, meso-, and macro-levels as identified and explained by Bronfenbrenner (1979) in his theory of human development. With the increasing number of international students in community colleges in Canada, it is imperative to study the kind of support areas that are

available to these students at each of the levels identified by Bronfenbrenner. For example, at the micro-level (individual), literature shows that a significant number of international students face challenges interacting and communicating effectively with their class mates and instructors, which possibly affects their intrapersonal well-being and interpersonal skills. These students also miss the social supports provided back home by friends and family members. As a result, language training/communication, intercultural/multicultural, and tutorial programs and activities are organized and provided to these international students to help them address the challenges that they face (Andrade, 2006; Hechanova-Alampey, Beehr, Christiansen, & Van Horn, 2002; Zhao, Kuh, & Carini, 2005; Robertson, Line, Jones, & Thomas, 2000; Fox, 1994).

At the meso-level (institutional), literature reveals that international students have inclusion and integration challenges as far as orientation programs, college services e.g. health and recreation programs are concerned in terms of having a sense of belonging and being able to participate actively in various activities and programs (Thomson & Esses, 2016; Sullivan & Kashubeck-West, 2005; Bhochibhoya, Dong, & Branscum, 2017; Bai, 2016; McFarlane, 2015; Zhang, 2015).

Also, at the macro-level (government/societal), literature reveals that international students face challenges that have to do with immigration, employment, integration, and settlement (Legusov, 2017; Hegarty, 2014; Paltridge et al, 2012; Cudmore, 2005; Trollokekar & Kizilbash, 2013; Kusek, 2015; Schindler, 1999). These three levels have various challenges that international students are confronted with in their efforts to obtain international academic credentials in their host country.

Research Questions

The Bronfenbrenner's theory of human development provided theoretical orientations for forming research questions for this study. These questions addressed support areas and programs as well as policies that were available at the micro-level (individual), meso-level (institutional), and macro-level (government/societal) to international students attending a community college. These questions were:

- 1) Do international students use all the support areas at the micro-, meso-, and macro-levels?
- 2) What is the relationship between the support areas of international students at the micro-, meso-, and macro-levels and their academic success as measured by their self-reported GPA and perceived success?
- 3) Which of these support areas is most strongly related to international students' academic success as measured by their self-reported GPA and perceived success?

Research Hypothesis

Based on the research questions identified above, three research hypotheses were:

- 1) International students may not use or take advantage of all the support areas at the micro-, meso-, and macro-levels.
- 2) There is a significant correlation between the support areas at the micro-, meso-, and macro-levels and international students' academic success as measured by their self-reported GPA and perceived success.
- 3) Support areas at the meso-level i.e. institutional level will be more positively correlated to the academic success of international students, measured by their self-

reported GPA and perceived success compared to the support areas at the other levels i.e. (micro and macro).

Significance of the Study

The intention of the Canadian government is to provide international students with the opportunity to live and work in Canada after they successfully complete their academic study. The expectation is that these students will be able to make tangible contributions to the government's efforts to address the challenge of an aging workforce that the country is presently experiencing. These students would also serve as a pool of talents, trained in Canadian colleges and universities, who would be in a position to contribute to the increased competitiveness of Canada's workforce when they graduate and fully enter into the workforce in today's increasingly competitive global world.

This study identified the impact of the micro-, meso-, and macro-levels as identified and explained by Bronfenbrenner (1979) on human development within the context of international students' academic success in community colleges. The results of this study would definitely help community college faculty, staff, administrators, student leaders, other stakeholders in community colleges, and government officials at the federal and provincial/territorial levels in Canada to better understand and address the challenges that international students face and the impact of the micro-, meso-, and macro-levels on international students' academic success.

Since international education has become a central pillar of Canadian education (CBIE 2016), and with the target set by the Canadian government to increase the number of international students to 450,000 by 2022 already exceeded with over 494,000 international students in Canada as of December, 2017 (Civinini, 2018; GAC, 2018), an understanding of how the environmental factors/conditions at the micro-, meso-, and macro-levels influence

international students' academic success would help inform campus administrators and government officials in their considerations for international students' recruitment, enrolment and support areas.

Organization of Research

This research study started with chapter one i.e. introduction. The chapter provided an overview of the problem with the contextual information about international students in the Canadian system of higher education. Chapter two presented a review of the relevant literature surrounding support areas of international students, using Bronfenbrenner's theory of human development at the micro-, meso-, and macro-levels. Chapter three described the methodology that was used for this study. Chapter four provided the results of this study, while chapter five provided a discussion of the findings, recommendations, and conclusion.

Summary

Chapter one of this study examined the unique roles that are played by Canadian community colleges, the factors that are responsible for their successes, the increasing attraction/enrolment of international students, some of the partnership programs between community colleges and universities in Canada, and the various programs, including study permit, work permit, settlement services programs e.g. "Train and Retain" and immigration programs that have been developed by the Canadian government to attract international students to Canada. This chapter also examined internationalization in Canada, international students in Canada, their impact in terms of their combined direct and indirect economic contributions, the challenges that confront international students, and the support areas of international students to confront these challenges in order to support their academic success. Finally, chapter one of this

study examined the theoretical framework, purpose of the study, rationale for the study, research questions, research hypotheses, significance of the study, and the organization of the research.

CHAPTER II

LITERATURE REVIEW

The purpose of this chapter is to examine the literature and research findings regarding the support areas of international students in community colleges and their impact on these students' academic success as measured by their self-reported GPA and perceived success. This chapter has been divided into the following sections i.e. the relevance of Bronfenbrenner's theory of human development to this study, the challenges that international students face in terms of support areas at the micro-level (individual), meso-level (institution), and the macro-level (government/societal), and the impact of the support areas on academic success. These students' academic success will be measured by their self-reported GPA and perceived success. These sections and the literature contained therein will provide the basis for this study.

Relevance of Bronfenbrenner's Theory of Human Development

A major goal of this study is to examine the impact of support areas on the academic success of international students in community colleges. This involves both conceptual and theoretical frameworks that acknowledges and accommodates the challenges that confront international students in their quest to achieve academic success, measured in terms of their self-reported GPA and perceived success in their host country. Furthermore, the Bronfenbrenner's theory of human development is relevant to this study because of the impact of the Process, Person, Concept, and Time model (Bronfenbrenner, 1995). He built this model on the initial levels of human development that he identified earlier as being important to an individual's development (Bronfenbrenner, 1979).

This consideration leads to the selection of a comprehensive human development model, which consequently becomes the conceptual and theoretical frameworks for this study. The

application of these frameworks in exploring the observed gap in the research literature regarding the relationship between support areas and the academic success of international students at the community college level of higher education is of utmost importance in this study.

Brief History of Recruitment of International Students by Community Colleges

O'Banion (1989) stated that prior to, and in the 1960s, American community colleges had only minimal involvement in international education because very few colleges were interested in, and involved in recruiting international students. Gleazer (1980) stated that the recruitment of international students in American community colleges could be traced to independent religious (church related) colleges who experienced tremendous growth in the 1960s. O'Banion (1989) and Raby (2000) also stated that the activities that led to the increased recruitment of international students from the 1960s through the 1970s and 1980s were brought about by different Foundations. O'Banion (1989) identified these Foundations to include Kellogg Foundation, Ford Foundation, and Johnson Foundation. Apart from these Foundations, College consortiums like the Community Colleges of International Development (CCID) were also involved in the recruitment of international students. The objective at the time was to provide consultation services to foreign governments and institutions, provision of technical expertise, training and transfer of the necessary technology to help mostly developing countries to be able to develop their educational institutions and economy (Cudmore, 2005).

In Canada, Hurabielle (1998) stated that international students' enrolment grew in the 1960s and 1970s from just 10 percent of Canadian institutions reporting to have international students to 82 percent by 1986. Today, virtually every higher education institution in Canada has international students with the internationalization agenda of the federal and provincial/territorial governments playing a significant role in that regard. Hurabielle (1998) further stated that the

recruitment of international students to Canadian post-secondary institutions was historically based on liberal humanism and humanitarian concerns. She further argued that the intention at the time was to assist the countries in need especially the developing countries. This international assistance, Hurabielle (1998), noted, was largely provided through the Association of Canadian Community Colleges (ACCC) or the CBIE. The assistance that was provided at the time was not expected to yield significant financial returns to the participating community colleges. Galway (2000) also reported that funding and contact with participating community colleges were provided by the Government of Canada through the Canadian International Development Agency (CIDA).

From the mid-1980s to date, there was a shift in the focus of recruiting international students to Canada from “aid to trade” as international students’ recruitment became commoditized (Galway, 2000; Knight, 1997; Fisher & Rubenson, 1997) and community colleges moved away from the less lucrative and government funded projects to the marketing of programs at full cost recovery rates to international students (Cudmore, 2005).

International Education and the Government of Canada

The federal government of Canada continues to play a central supporting role in the internationalization of education in Canada with all the 10 provinces and three territories in the country taking the lead role since education in Canada is provincially regulated. The cooperation between the federal and provincial/territorial governments has helped in ensuring development cooperation, scientific research and labor force development in areas that intersect with international education in Canada. The CBIE (2016) report revealed that the federal government of Canada released a report of a strong commitment to international education in January 2014 i.e. “*Canada’s International Education Strategy: Harnessing our Knowledge Advantage to drive*

Innovation and Prosperity” report. The main objective of the report was to increase the number of international students in Canada to 450,000 by 2022.

The report was also intended to ensure a greater participation in international education by Canadian colleges and universities in partnership with foreign institutions including student exchange programs and an aggressive promotion of international education in Canada to the outside world through the *EduCanada: A world of Possibilities* campaign. The internationalization of Canadian colleges and universities according to the CBIE (2016) report includes expansion of international student services, deepening existing international partnerships, increasing the number of international partnerships with new institutions, international mobility opportunities for faculty, the establishment of joint or double degree/diploma/certificate programs with international institutions and training and capacity building programs for international partners.

International Education and Provincial/Territorial Governments

Several provincial/territorial governments in Canada have developed policies and programs in international education in an effort to complement the federal government’s effort of developing a globally oriented program that not only trains students to be global citizens who are able to compete in a global economy, but also able to enhance the competitiveness of Canada’s workforce, globally.

The CBIE (2016) report revealed that several provincial organizations that are dedicated to international education work with provincial governments and colleges/universities in order to achieve their internationalization agenda. The report further stated that in Ontario, the province with the highest number of international students in Canada, a post-secondary education strategy

was developed by the provincial government in early 2016 that focused on three themes. These themes are:

- 1) Enhancing student experience for both domestic and international students by increasing the international activities in students' education and ensuring that international students receive a high quality education, including necessary supports
- 2) Creating a skilled and talented workforce by recognizing the fact that international students who choose to come to Ontario can contribute to the province's need for skilled workers, taking advantage of the province's ethnically diverse communities to attract and support international students, working with the federal government to ensure that study and work permit programs in Canada are competitive with what obtain in other countries, and,
- 3) Leveraging economic partnerships to support long term economic growth through Ontario's broad business base which includes domestic companies operating internationally, foreign companies operating in Ontario, and other organizations that could partner with post-secondary institutions to increase global reach. The third theme also includes building on the strong research base of the colleges and universities in the province by attracting internationally recognized faculty, international students including PhD students to form global partnerships to produce new entrepreneurs, business and investment opportunities, strengthening post-secondary education in the province, and providing opportunities for colleges and universities in the province to maximize their individual strengths, for greater global impact and profile.

Number and Percentage of International Students in Canada by Province/Territory (2015)

Table 4 revealed the number of international students who studied in Canada at all levels of education including colleges and universities in Canada in 2015. The data from the table showed the distribution of international students in all the provinces and territories in the country.

Table 4 showed that international students studying in the various colleges and universities in Ontario in 2015 accounted for 43 percent of the total number of international students that studied in Canada at 151,755. The province of Ontario thus had the highest number of international students. This was followed by British Columbia at 27.3 percent, Quebec, the French speaking province of Canada at 14.2 percent, Alberta at 5.4 percent, Nova Scotia at 2.9 percent, and Manitoba at 2.7 percent. This showed a total international student population of 95,035 in British Columbia, 49,455 in Quebec, 18,900 in Alberta, 10,130 in Nova Scotia, and 9,545 in Manitoba.

From the data in Table 4, the provinces with the least number of international students were Saskatchewan, New Brunswick, New Foundland and Labrador, and Prince Edward Island. These provinces had 5,545, 3,855, 2,370, and 1,275 international students representing 1.6 percent, 1.1 percent, 0.7 percent, and 0.4 percent respectively. Also, out of the three territories in Canada, only Yukon had five international students which was less than one percent of the international students in Canada in 2015. The other two territories i.e. Northwest and Nunavut did not have any international student.

Table 4.

Number and Percent of International Students in Canada by Canadian region in 2015

Province/Territory	Number	Percentage
Ontario	151,755	43.6%
British Columbia	95,035	27.3%
Quebec	49,455	14.2%
Alberta	18,900	5.4%
Nova Scotia	10,130	2.9%
Manitoba	9,545	2.7%
Saskatchewan	5,545	1.6%
New Brunswick	3,855	1.1%
Newfoundland and Labrador	2,370	0.7%
Prince Edward Island	1,275	0.4%
Yukon Territory	5	<1%
Northwest Territory	0	0%
Nunavut Territory	0	0%

Source: CBIE, 2016

Breakdown of International Students in Canada by Origin

Table 5 below revealed the breakdown of international students' population in Canada by origin as at 2015.

Table 5

Regional breakdown of International Students in Canada in 2015

Origin	Number	Percentage
East Asia	164,495	47%
South Asia	56,365	16%
Europe	33,215	9%
Middle East & North Africa	29,885	8%
Africa (Sub Sahara)	25,485	7%
Latin America & Caribbean	23,675	7%
United States	12,215	3%
Eastern Europe & Central Asia	6,885	2%
Oceania & South Pacific	970	<1%

Source: CBIE, 2016

From Table 5 above, the highest number of international students in Canada in 2015 were from East Asia. International students from East Asia, mostly from China and Korea, were 164,495, and they represented 47 percent of the total international student population. China and

Korea also form part of the top five destinations of international students in community colleges in Canada in 2015. These countries also form part of the key target market areas for the recruitment of international students. The second highest number of international students were from South Asian countries. These students represent 16 percent of the total international student population at 56, 365. International students from South Asian countries in Canada were mostly from India, Bangladesh, and Pakistan while there were a few from Afghanistan, Nepal, and Sri Lanka. Indeed, India is one of the key target areas for the recruitment of international students in Canada in 2015 and also boasts of having the highest number of international students in community colleges in Canada as revealed by the data provided later in table 7 below.

The other places that international students in Canada in 2015 came from were Europe, 33,215 at 9 percent of the total international student population. Indeed, there were quite a number of international students from the U.K, Germany, France and Russia. International students from Middle East and North Africa were 29,885 which represented 8 percent of the total international student population in Canada. Most of the international students from Middle East and North Africa were from Iran and Egypt. Sub-Sahara Africa had 25,485 international students in Canada in 2015 and they represented 7 percent of the total international student population. The highest number of international students from Sub Sahara Africa were from Nigeria, which is also a key market area and one of the top five destination of international students in community colleges in Canada. Other countries from Sub Sahara Africa where international students came from include Ghana, Zambia, and Kenya (CBIE, 2016).

Table 5 further revealed that Latin America and Caribbean, had 23,675 representing 7 percent of the total international student population with a large percentage of these students coming from Brazil as well as Jamaica, while the United States, Canada's neighbour to the south

of the border had 12, 215 representing 3 percent of the total international student population in Canada. Eastern Europe and Central Asia, Oceania and South Pacific had the least number of international students at 6,885, and 970 respectively. These figures represent 2 percent and less than 1 percent of the total international student population in Canada respectively. International students from Eastern Europe and Central Asia in Canada were mostly from Romania and Uzbekistan (CBIE, 2016).

Tables 6 and 7 below provided information on the number of international students who studied in Canadian educational institutions in 2015 and the top five countries that these international students came from in 2015 respectively.

Table 6

Number of International Students and Type/Level of Study (2015)	
Institution	n
University	177,290
College	66,665
Unspecified Post-Secondary	16,175
CEGEP	3,725
Total Post-Secondary	263,855
Other Studies	33,475
Secondary	44,510
Primary	11,580
Study level not provided	155
Total Number	353,575

Source: CBIE, 2016

As seen from Table 6 above, there were over 70,000 international students in the various community colleges in Canada in 2015. This figure included international students in Colleges and CEGEP (community colleges in Quebec) who are included in the number of international students studying at the post-secondary education level in Canada.

Table 7.

Top Countries of International Students in Community Colleges (2015)

Country	Number of International Students
India	28,335
China	11,930
South Korea	4,145
Brazil	1,930
Nigeria	1,860

Source: CBIE, 2016

Table 7 above revealed the top five countries of citizenship of international students in Canadian community colleges in 2015. These top five countries i.e. India, China, Korea, Brazil, and Nigeria had the highest number of international students in community colleges in Canada with the figures provided in the table as well. These countries are also included in the key markets for international students in community colleges in Canada that were identified above earlier.

International Students' Support Areas

Support areas of international students in community colleges in Canada range from the micro-level (individual), to the meso-level (institutional), and to the macro-level (government/societal). Various higher education institutions have support areas in place. These support areas include mentorship or pair programs that involve faculty, staff, tutors, roommates, colleagues, course mates, cohort mates, class mates, student association, international education, immigrant/diversity, provincial/territorial, and federal governments' agencies.

The support areas of international students also range from financial to emotional, psychological, cultural, and academic. Examples of some of the financial supports that are available to international students in community colleges include new students' scholarship, athletic scholarships, program specific scholarships, and international entrance scholarships.

These supports range from CAD\$250 to CAD\$5,000 for study in any program.

Examples of international students scholarships are Canadian Commonwealth Scholarship Program (CCSP), Government of Canada Awards (CGA), International Student Humanitarian Award (ISHA), an award provided to international students from poor or war-torn countries, International Leaders of Tomorrow Award (ILTA), *Programme Canadien de bourses de la Francophone*, an award for international students in Quebec and the Rotary Foundation's Ambassadorial Scholarship Award.

In addition to the above, some community colleges also provide funding assistance to international students that range from CAD\$500 TO CAD\$1,000. However, these international students must demonstrate serious financial need and strong academic standing to qualify for these awards. Other types of support areas of international students are language supports that are provided to international students whose first language is not the English language (Andrade, 2006; Fass-Holmes & Vaughan, 2014). Furthermore, international students who are admitted to community colleges in Canada from non-English speaking countries, and where the language of instruction and/or communication in their native countries is not the English language are provided an English language training prior to the start of classes, and on an on-going basis to help them to understand the classes that they are taking. This enables them to be able to make meaningful contributions to class discussions and also be able to provide adequate responses to the questions they are asked in class, during quizzes and examinations in the community colleges they attend, outside of Quebec, where the language of instruction is the English language.

Academic support areas are also provided to both domestic and international students to enhance their understanding of topics that are discussed in class during their spare times. These academic support areas also help students in ensuring their readiness for academic rigors in

classes. The other types of support areas that are provided to international students include roommate pairing, where international students are paired with willing and interested domestic students in their residence halls, and mentorship programs, in which domestic students serve as mentors, while international students serve as mentees and vice versa depending on the area of support that is provided (Hechanova-Alampay, Beehr, Christiansen, & Van Horn, 2002; Rajapaska & Dundes, 2002; Tolman, 2017; McFaul, 2016; Thomson & Esses, 2016).

Furthermore, there are home stay support areas in which willing Canadian families volunteer to invite international students without social supports into their homes to spend a few hours, or spend the night or weekend or visit on public holidays. These international students are invited to events or activities that last from a few hours to almost a whole day on public holidays such as Louis Riel Day, Canada Day, and other religious public holidays that are observed in Canada such as Good Friday and Christmas Day celebrations. These social support areas are provided to international students to help them have a better understanding of the Canadian culture and also assist in their quick integration into the Canadian society (Guo & Chase, 2011; Jandt, 2007; Kusek, 2015).

The other types of support areas of international students in Canadian community colleges include public health insurance, immigration supports on how to ensure that their papers and documents are legal and valid, how to apply for their permanent residency, how to renew their study and work permit visas, visa extension and renewals. The study and work permit supports apply when these students' study or work permit visas expire before the completion of their programs. Supports are provided by immigration officials to international students on how to apply for provincial nominee programs for permanent residency upon the successful completion of their academic programs. Supports are also provided to international students by

student association, international education office, and international student advisors during orientation programs and after, on an on-going basis, on how to register for health services including health insurance within and outside campus in the course of their academic study, how to navigate their way on campus and in the city by understanding city routes and bus times, and how to open bank accounts or have funds transferred to them from their parents or family members back home (Zhang, 2015; Bhochhibhoya, Dong, & Branscum, 2017; Mori, 2000; Schindler, 1999; Ristner, Modai, & Ponizovsky, 2000; Brisset et al, 2010).

Current Literature on Support Areas in Community Colleges

While there is an extensive body of literature dedicated to international students support in universities and graduate programs in North America, there isn't much in respect of community colleges especially in Canada. This study is intended to contribute to knowledge regarding the impact of support areas of international students in community colleges on their academic success as measured by their self-reported GPA and perceived success. Andrade (2006) argued that the academic success of international students depends on the supports that are available to them both in and outside the classroom. Several factors have been identified as both essential and important to the academic success of international students. Some of these include the ability to communicate effectively in the English language according to (Andrade, 2006; Mamiseishvili, 2012; Woodrow, 2006; Zhang, 2015; Poyrazli & Lopez, 2007; Fass-Holmes & Vaughn, 2014; McFarlane, 2015).

Other areas that have been identified as important to international students' academic success are support from faculty (Andrade, 2006; McLachlan & Justice, 2009; Martinez & Coloner, 2017; Xu, 2015; Freeman, 1998; Guo & Chase, 2011; Lemke-Westcott & Johnson, 2013), social networks and support (Andrade, 2005; Gomez, Urzua, & Glass, 2014; Darner,

2007; McFaul, 2016; Liu, 2009; Bhochhibhoya et al, 2017; Bai, 2016), host family support (Hellman, Miyazaki, Miranda, & Fiscus, 2016; Schindler, 1999; Ritsner et al, 2000), and mentoring programs both on and off campus, and in residence halls (Kovtun, 2011; Tolman, 2017; Quintrelli & Westwood, 1994; Abe, Talbot, & Geelhoed, 1998; Chang & Razek, 2014; Tas, 2013; Geelhoed, Abe, & Talbot, 2003; Breuning, 2007; Hendrickson, Rosen & Aune, 2011; Hellman et al, 2016; Thomson & Esses, 2016).

In addition to the above, government support areas at the local, provincial/territorial, and federal levels in terms of the programs that have been introduced to attract and ease the integration of international students in Canada such as “Train and Retain” play a significant role in contributing to the success of these students in their academic programs (Kusek, 2015; Paltridge et al, 2012; Trilokekar & Kizilbash, 2013; Hegarty, 2014; Legusov, 2017; Cudmore, 2005; Chen, 2017; Guo & Chase, 2011; CBIE, 2016 report; All Universities & Colleges Canada, AUCC, 2006 & 2007 reports). The other types of support areas that have been identified in literature to be both essential and important to international students’ academic success include international student advisor and counselling supports (McFarlane, 2015; Zhang, 2015; Feng & Feng, 2013; Caldwell & Hyami-Ssekasi, 2016; Natali, 2005; Urban & Palmer, 2016; Singaravelu, White, & Bringaze, 2005; Feng & Feng, 2013; Sandhu & Asrabadi, 1994; Sandhu & Asrabadi, 1998).

Several studies that have been conducted on international students’ support areas and their impact on these students’ academic success have used both the quantitative and qualitative methodologies. Using the Bronfenbrenner’s model of human development, these support areas have been classified into the micro-level (individual) which includes faculty support, mentoring support, family support, peer/course mate support, and roommate/host family support. At the

meso-level (institutional), support areas and programs that have been developed by community colleges to support international students include acculturation support, mental health/counselling support, socialization support, advisor support, networking support, and English as Second Language (ESL) support.

The third classification of support areas is the macro-level (government/societal) which includes settlement support areas, study and work permits approval and renewal supports, health insurance, and immigration services support programs. The immigration support areas and programs are organized for international students on how to apply for the PNP, and other immigration streams that they can take advantage of, to become permanent residents of Canada, and eventually Canadian citizens when they successfully complete their academic programs.

Table 8.

International Students' Support Areas at the Micro-, Meso-, and Macro-Levels

Levels	Support Services
Micro	Faculty Support Mentoring Support Family Support Peer/Course mate Support
Meso	Roommate/Homestay Family Support Acculturation Support Mental health/Counselling Support Socialization Support Academic Advisor Support Networking Support Academic curriculum/Course outline ESL Program
Macro	Settlement Services Support Work Permit Support Study Permit Support Immigration Services Support Health Insurance Support Government Policies/Programs

International Students' Support Areas at the Micro-Level

International students mostly deal with challenges that are taken for granted by domestic students and some of these challenges include social and family supports according to (Habib et al, 2014). These challenges not only cause emotional and psychological stress to these students, but also adversely impact their academic success when they do not get adequate supports (Bai, 2016). Some of these challenges include their inability to develop meaningful relationships with their course mates, class mates, and/or roommates, inability to communicate properly in the English language, lack of confidence in interacting with faculty and asking questions both in and outside the classroom where necessary, and difficulty in understanding the academic system, curriculum, and grading system of the higher education institutions in their host country which is often different from what they were used to in their home country (Habib et al, 2014; Guo & Chase, 2011).

Andrade (2006) revealed that international students had more difficulty in settling down to their studies compared to domestic students. She suggested that this might be because academic adjustment problems for international students tend to focus on language issues. According to Andrade (2006), it is important to note that the process of adjustment for international students appear to be gradual depending on age, year of study, immigration status, and country of origin. She further stated that international students from Western countries usually adjust faster compared to international students from non-Western countries. A reason for this might be because Western countries tend to share similar culture and share a lot of commonalities compared to non-Western countries.

Some of the other challenges that international students face at the micro-level are academic challenges due to their inability to relate, and engage in social interactions with other

students especially domestic students, dissonance about academic experience, subjection to stereotyping, concerns regarding the well-being of their family members back home, concerns regarding how to seek employment after graduation, and how to readjust to their home country when they return home (Popadiuk & Arthur, 2004; Lin & Yin, 1997) which affect their ability to fully concentrate with their studies without distractions in order to achieve academic success.

Faculty Support

Several studies conducted have revealed that international students were more concerned with their relationship with faculty (Hwang, Benett, & Beauchemin, 2014) which is essential to their academic success. Grayson (2008) reported that 74 percent of international students often struggle with their studies because they had issues that are related to their studies including good faculty rapport. Perry (2016) also stated that international students reported having a positive relationship with their advisor and faculty made them feel better and equipped to perform their academic responsibilities. Literature also reveals that international students who felt they had a supportive campus environment were more pleased with their learning experiences regardless of their home nation and were more likely to remain enrolled in their college (Korobova & Starobin, 2015; Mamiseishvili, 2012; Guo & Chase, 2011; Fass-Holmes & Vaughan, 2014).

Kurucz (2006) stated that international students make significant contributions to the promotion of cultural diversity in the classrooms and on campus by enriching the academic environment and adding educational value to it. Leask (2009, p. 206) also stated that admitting international students means exposing domestic students to “diverse cultural perspectives and experiences” which could empower both domestic and international students with valuable skills and knowledge to work in a global environment. However, Leask (2009) averred that in spite of the benefits that international students bring to classroom and campus diversity, it is difficult for

them to deal with transitional challenges. Their transition can however, be successful if their instructors understand their experiences, internationalize their curriculum by including international examples into course content and teaching practices to support their intercultural transitions (Leask, 2009).

Xu (2015) averred that another challenge that international students face that affect them at the micro-level is learning shock and culture shock. Both learning shock and culture shock were described as transitional challenges that international students face when they arrive in their host country as far as their learning experience is concerned, which is often different from their experience back home. Therefore, culturally relevant teaching practices are imperative for international students by classroom teachers as the one size fits all style no longer fits in all teaching practices in North America (Freire, 2000; Milner, 2011).

Lee (1997) stated that international students studying at the graduate level agreed that they have the primary responsibility to adjust to their new academic environment even though they argue that faculty could modify their teaching styles to ease their adjustment. Kurucz (2006, p. 209) stated that faculty can help to ease the adjustment of international students because “teaching international students helps faculty to achieve a full, rich, and rewarding life, full of fascinating new ideas, interactions and insights.” Lewthwaite (1996) also stated that graduate international students believe that their number one priority was adjustment to academic life and successful fulfilment of their degree requirements. These students however, believe that faculty support is critical to their academic success. Mendelsohn (2002) averred that international students stated that having background knowledge in the content area, reading the textbook, asking for clarification of lecture content from lecturers or class mates, attending additional

lectures in the content area, and note taking strategies are beneficial to their study and academic performance.

Other findings include Fox (1994) who revealed that what some faculty perceive as the inability of international students to analyze and logically develop a written argument was the result of cultural communication styles, and not a lack of proficiency in English language. According to Fox (1994), Western views of academic writing and critical thinking skills follow a minority perspective which is not necessarily the same as non-Western perspectives. Andrade (2006) also stated that faculty assumptions about international students are often incorrect. She argued that it is important for faculty to recognize the emotional and psychological problems that international students face such as stress, home sickness, isolation, and finances all of which are detrimental to learning and might make it appear as if international students do not take responsibility for their learning.

Mentoring Support

Thomson and Esses (2016) averred that new international students with Canadian mentors experienced positive changes in their socio-cultural and psychological adaptation over time. They both further stated that these international students also experienced less acculturative stress over time. Perry (2016) stated that relationships are more important to international students from collectivist cultures i.e. Africa and Asia for example, than those from individualistic societies i.e. Western Europe and North America.

Zhao, Kuh, & Carini (2005) also stated that international students who made friends with domestic students were better able to adjust and adapt to their new environment. The difficulty that international students face in forming meaningful relationship is due at times to their lack of English language skills. This difficulty may contribute to the challenges that these students have

in their academic and student-faculty interactions (Zhao et al, 2005). The lack of English language proficiency on the part of international students also leads to the segregation between international and domestic students, thus making domestic students to be less enthusiastic and comfortable in providing peer support that could help international students to achieve their academic goals (Andrade, 2006).

Other challenges in English language related skills that international students have identified include listening ability, lecture and reading comprehension, note taking, oral communication, vocabulary and writing (Lee, 1997; Lewthwaite, 1996; Senyshn, Warford, & Zhan, 2000). These challenges with English language related skills therefore lead to feelings of lack of confidence on the part of international students (Tompson & Tompson, 1996; Senyshn et al, 2000), fear of making mistakes (Jacob & Greggo, 2001), feelings of anxiety, fear, and lack of confidence which inhibit their class participation (Lewthwaite, 1996).

The inability of international students to communicate effectively in the English language according to Andrade (2006) has made some faculty believe that these students exhibit unproductive behaviors in class when they sit next to each other, and refuse to participate in class discussions or ask questions in class when they are unclear about specific topics discussed in class. However, international students prefer to sit next to other international students who spoke their local language so they can ask questions about the lecture or assignments if necessary (Andrade, 2006; Robertson, Line, Jones, & Thomas, 2000; Tompson & Tompson, 1996).

Andrade (2006) stated that international students are able to make contributions on issues that require international perspectives, perform well academically, contribute ideas based on diversity experience, and prepare domestic students for future encounters with diversity. However, she argued that they experience critical challenges in building a social network,

language and familiarity with rules, norms and regulations. These challenges have made some faculty to believe that international students lack critical thinking skills, had difficulty with spoken English, had weak writing skills and do not take responsibility for their learning (Andrade, 2006). This impression by some faculty is however, contrary to some literature findings which show that international students value warm and friendly relationship with their instructors to aid their learning (Sarkodi-Mensah, 1998).

Family Support

Another challenge that international students face at the micro-level had to do with their inability to develop social support in the absence of their family members and friends who were at a greater distance (Andrade, 2006; Bai, 2016; Sandhu & Asrabadi, 1994). This inability to get social support from family members and friends contributes to feelings of homesickness and loneliness on the part of international students compared to domestic students (Rajapaska & Dundes, 2002) and feelings of uncertainty about many things since their cultural and personal habits are broken (Kurucz, 2006).

Andrade (2006) also stated that only a small percentage of international students reported having close friendship with domestic students due to lack of opportunity and/or preference for friendship with them. International students who were however, able to have better interactions with domestic students were able to quickly and better adjust and settle down to their studies (Hechanova-Alampay et al, 2002) and achieve academic success (Tolman, 2017).

Peer/Course mate Support

Jacob and Greggo (2001) stated that international students indicated a greater need to adjust to their new culture, understand non-verbal behaviors, develop friendships with diverse peers, communicate effectively with their Professors and be involved in their college and

academic community. This agrees with Al-Sharidah & Goe (1998) who both revealed that personal adjustment of international students was linked to having ties with co-cultural i.e. fellow international students from same and/or similar culture, and domestic students. One way of encouraging ties with co-cultural and domestic students is the peer support programs that have been introduced in several colleges and universities (Andrade, 2006; Tolman, 2017; Kovtun, 2011; Tas, 2013). Not only has peer support programs been successful and beneficial to international students, friendship with domestic students, co-culturals, and local residents have been found to positively influence international students' adjustment and academic success (Andrade, 2006; Kusek, 2015; McFaul, 2016; Paltridge et al, 2012).

The success of these peer support services in various community colleges and universities according to Zhao et al (2005) has contributed to the ability of international students to be more engaging with their faculty, accept academic challenge and use of computer technology, an important skill in the 21st century, which are all important to the achievement of the academic success of these students.

Roommate/Homestay Family Support

An example of a support area that has been quite successful in helping international students to better integrate into their new environment, and be better prepared for the rigors of their academic study is the roommate pairing and homestay family programs. For example, in the roommate pairing program, international students are paired with willing domestic students. While the domestic student provides mentoring support to his/her roommate i.e. an international student, the domestic student also learns about other cultures and gains an international perspective to addressing issues. For example, Tolman (2017) argued that roommate pairing program had a positive impact on the residential experience of international students.

Other studies also revealed that international students had a positive residential experience after being paired with domestic students in residence halls (Tolman, 2017; Quintrell & Westwood, 1994). International students, regardless of the course of study or discipline of their pair/roommates found equal benefits in having a domestic roommate (Tolman, 2017; Astin, 1975). Other findings reveal that social supports arising from residence life enhance the experience of international students, reduce their likelihood of being isolated, provides additional layer of support, helps them to be more relaxed and to feel at home which contributed to their academic success (Tolman, 2017; Tas, 2013).

Apart from the roommate pairing program, the homestay family program has also recorded commendable success (Shiri, 2015). This is because homestay families serve as an instrumental resource that assist international students in learning host language and become more familiar with their host country's customs, social and political climate (Schmidt-Reinhardt & McKnight, 2004; Shiri, 2015).

Lee & Wesche (2000) stated that international students in Canada viewed orientation and homestay programs, and diverse classrooms as helpful to social adjustments, and their English language development. Also, intensive English language programs are key to rapid English language gains and confidence building for international students (Lee & Wesche, 2000).

International Students' Support Areas at the Meso-Level

Liu (2009) stated that international students reported a variety of concerns related to social interaction, social connectedness, social support, home sickness, acculturative stress, and other difficulties. However, Bai (2016) argued that perceived support from international students' institution of learning is a significant negative predictor of acculturative stress i.e. supports from colleges (institutional support) is very important to international students in their

acculturative process. Understanding the trends via which international students make connections with co-nationals, and host national students help colleges to develop programs that encourage friendship making, cross cultural workshops, and the foundation and reasoning to strengthen support systems for international students (McFaul, 2016; McFarlane, 2015).

Grayson (2008) stated that international students are more interested and active in college activities, groups, associations and clubs that embrace diversity because these groups enable these students to find people with similar interests, beliefs and background to relate to. In the absence of such diverse groups, associations or clubs on college campuses that international students may relate to, they concentrate on their academic pursuits or may relate with themselves (Curtins, 2013; Perry, 2016).

McFaul (2016) averred that international students make friends mostly through class, housing/residence and on-campus organizations, religious or spiritual organizations, and country associations. She further stated that international students also make friends through their friends' friends and through the office of international education and student association activities and programs. Friendships that are made through class, residence halls, and on-campus activities are diverse and varied. These friendships highlight the importance of socialization skills, engagement in leisure, class, residence hall, and on-campus activities which contribute to the successful experiences of students and their academic success (Glass & Westmont, 2013; Neri & Ville, 2007; Gomez, Urzua, & Glass, 2014; Hommes, Rienties, de Grave, Bos, Schuwirth, & Scherpbier, 2012).

There are a number of challenges that international students face at the meso-level i.e. institutional level that necessitated the introduction of programs and activities identified above earlier by community colleges in the effort of administrators to address these challenges. Some

of these programs and activities are aimed at helping in the social, cultural, and academic integration of these students in order to help them achieve academic success (Andrade, 2006; Kusek, 2015; McFaul, 2016; Paltridge et al, 2012). Some of these programs also include co-curricular and extra-curricular activities, orientation programs, international students welcome program, diversity night, home stay and host family programs to mention a few (Wei, Heppner, Mallen, Ku, Liao, & Wu, 2007). They further stated that a number of these activities do not directly involve faculty and they mostly take place outside the classroom.

Andrade (2006) stated that the academic success of international students does not depend on only the supports that are available to them in the classroom but the supports available to them outside the classroom as well. She further argued that the adjustment challenges that international students face are not only limited to their academic, but involve culture, and these challenges have global implication for intercultural education. The need to have support programs and activities including outreach support groups for international students at the institutional level is also important because these outreach support groups might help to get international students who may need counselling but are reluctant to initiate contact (Smith, Chin, Inman, & Finding, 1999).

Acculturation Support

The study of international education cannot be done without discussing culture using Hofstede's theory of cultural dimension (Gahan & Abeysekera, 2009; Tan & Liu, 2014) to provide context to the native traits of international students that influence their ability to adapt to foreign ways of thinking and behaving (Martinez & Coloner, 2017). Furthermore, Martinez & Coloner (2017) argued that international students' actual and perceived proficiency (or the lack thereof) of the host country's language greatly influences all aspects of the international

students' international education experiences and it determines the level of acculturative stress involved. Research on international education also show the fundamental role of acculturation in the experience of international students (Martinez, 2016; Yakunina, Weigold, Weigold, Hercegovac, & Elsayed, 2013).

Literature shows that international students' first choice of support for their acculturative stress and mental health needs are their friends, family members, clergy, and physician and not supports that are available in their colleges (Yakushko, Davidson, & Sanford-martens, 2008). Many international students struggle with isolation and marginalization (Sullivan & Kashubeck-West, 2005) and as a result depend on home country supports to address their struggle with isolation and marginalization. Literature findings however, show that home country supports and an emphasis on maintaining ties to the home culture were not found to be beneficially associated with international students' concentration to their studies and academic success (Brown, 2009; Neri & Ville, 2008).

Sullivan and Kashubeck-West (2005) found that international students who have their primary social connections in their home country are not able to establish and develop stronger ties and adaptability in their host country environment. They also found that international students with broad based social support and an integration approach to acculturation experienced lower levels of acculturation stress and vice-versa with its attendant effect on their academic success. Bai (2016) stated that age and the years of stay of international students in their host country did not account for a significant amount of variance in acculturative stress which is not consistent with previous studies according to (Constantine, Okazaki, & Utsey, 2004; Kuo & Roysirca, 2004; Wei et al, 2007).

Sullivan and Kashubeck-West (2005) argued that assimilation and integration of international students were associated with higher levels of support from host nationals and other international students. They further argued that acculturation modes are associated with specific sources of support i.e. assimilation with host nationals, separation from home country, integration with host nationals, and other international students. These findings agree with other studies that show that a positive relationship exists between host country friendships and increased levels of satisfaction, contentment, and social connectedness while also diminishing home sickness (Hendrickson et al, 2011).

Bhochhibhoya et al (2017) stated that sources of social supports available to international students vary and changes. This is because as international students stay longer in their host country, they experience a shift in their sources of social support. Bhochhibhoya et al (2007) argued that as international students stay longer in their host country, they depend more on close people who were born in their host country for social support than those who were born in their home country.

Literature also reveals that several colleges and universities have developed programs and activities to provide social support to international students to reduce stress caused by migration, and from being a college student. Some of these programs include Canadian host family programs, international student club activities, and activities organized by the international student office (Schindler, 1999; Ristner et al, 2000; Mori, 2000; Brisset et al, 2010). However, in spite of the effect of these activities and programs on international students' acculturation, and social integration, Bhochhibhoya et al (2017) contended that language and cultural barriers still pose challenges to international students.

Mental Health/Counselling Support

Many international students deal with issues that may have created mental and emotional stress, feelings of isolation and alienation from their new environment (Burdett & Crossman, 2012; Gardner, 2013). Literature findings reveal that International students reported concerns with relationship problems and emotional issues such as anxiety and depression (Perry, 2016; Mitchell, Greenwood, Guglielmi, 2007; Rodgers & Tennison, 2009; Hwang et al, 2014).

Literature also reveals that Asian students were more distressed than North American and European students (Mitchell et al, 2007) and were more likely to be hospitalized for their mental health issue (Perry, 2016). Although mental health programs are being promoted in many community colleges through the establishment of wellness and counselling centers, differences in cultural beliefs about mental health, associated stigmas, and unfamiliarity with these resources have made many international students not to use these services (Aubrey, 1991; Brinson & Kottler, 1995; Bradley et al, 1995).

The indifference of international students to mental health programs and counselling centers has led to the under-utilization of mental health services and social support services in their campuses. Bhochhibhoya et al (2017) stated that due to this indifference, it is possible that international students might be facing severe mental health problems without being aware. Although Bhochhibhoya et al (2017) argued that social supports for international students vary and change, literature reveals that for some international students, the longer the time they spend in their host country, the greater the possibility of experiencing negative effectivity towards life events they will experience. This is because the increased duration of their stay in their host country may also increase their exposure to harmful sources of psychological stress including racial and anti-immigrant discrimination (Lee, O'Neill, Ihara, & Chase, 2013).

Socialization Support

Although international students face difficulties in adjusting to the culture of their host country due to their unique needs (Bertram, Poulakis, Elsasser & Kumber, 2014), they still benefit from programs that address their challenges such as understanding the Canadian academic environment where students are able to identify and discuss the stages of culture shock in their programs (Jandt, 2007). International students also benefit from orientation programs that involve cross cultural communication, where the dimensions of culture are explored and an analysis of the underlying assumptions, beliefs, and value of culture including examination of important terms like race, ethnicity, and culture are considered (Guo & Chase, 2011).

International Students' intercultural adaptation is not a linear and passive process (Gu, Schweisforth, & Day, 2010) but one that involves the presence of a complex set of shifting associations between language mastery, social interaction and academic outcomes (Guo & Chase, 2011). International students from Asia were more socialized but less engaged in active learning and diversity-related activities, and were less satisfied with the campus-environment than other international students (Andrade, 2006). Also, international students stated that friendships and team work with domestic peers is problematic and are not always responsive (Andrade, 2006). Her findings agree with other literature that international students have problems dealing with issues that have to do with unfamiliar campuses and novelty of a new nation which is quite overwhelming and makes them feel alienated (Burdett & Crossman, 2012), which makes many international students to feel left out (Sherry, Thomas, & Chui, 2010), and many prefer to relate with other international students from their own nationality or from a similar background (Zhao et al, 2005).

Terenzini and Reason (2005) stated that new international students who participate in programs like the orientation, co-curricular, and extra-curricular activities, and certain first year classes gain an understanding of social diversity, improve their skills in writing, oral presentations and research, and enhance their psycho-social development. They further stated that these programs help international students to be resilient, persistent, diligent, develop a sense of strong will, self-confidence, and positive attitude which help international students to benefit from institutional structures. Chuang (2012) revealed that institutional supports for extra-curricular and co-curricular programs that facilitate student learning and development is crucial to the academic and personal success of international students. Arambewela & Hall (2003) revealed that there is a positive relationship between international students' self-efficacy and satisfaction with their learning environment within their academic environment from their participation in extra-curricular activities.

Chickering and Braskamp (2009) also stated that participation in programs outside the classroom such as NASPA programs impacts the development of a global perspective of international students and those who engage with them. Multicultural and co-curricular activities and programs also enhance international students' sense of belonging. These activities and programs are suggested to have a buffering effect against negative experiences of discrimination and positively contributes to academic success of international students (Glass & Westmount, 2014). Findings in literature also show that activities and programs that use the construct of multicultural personality, assertiveness and academic self-efficacy help some international students to better adjust to their foreign environment than others (Lee & Ciftes, 2014; Roesch, Wee, & Vaughn, 2006).

Given the importance of orientation programs, Lin & Yi (1997) advocated for a multiphase approach to orientation while Murphy, Hawkes, & Law (2002) suggested a web-based orientation program for international students. Their suggestion might be due to the need to make it possible for international students to be able to refer to any aspect of the orientation program they need as the need arises by simply going online. Regardless of the format of the orientation program for international students, Guo & Chase (2011) stated that the success of orientation programs for international students has important implications for host institutions in providing appropriate levels of support needed to help international students with their transition and adaptation.

Academic Advisor Support

International students often get a lot of bad advice that usually steer them away from their areas of study based on the assumptions about their ability to succeed linguistically and academically (Caldwell & Hyams-Ssekasi, 2016; McFarlane, 2015). As a result, international students often express a desire to know about expectations before and after they arrive on campus (Berkeley International Office, BIO, 2014; Sokolik, 2015). Some research findings show that student affairs professionals perceive international students to be well-adjusted, satisfied with their educational experiences and have typical concerns and feelings (Walker, 2001) but other research argue otherwise (Ramsay, Barker, & Jones, 1999; Jacob & Greggo, 2001; Rajapaksa & Dundes, 2002).

In some institutions, for example, the New York University (NYU), the Student Affairs Office is charged with the responsibility of ensuring that the out-of-classroom experience of international students, their development, campus life and related activities complement the rigor and expectations of the classroom, campus, and community where the institution is located

(McFarlane, 2015). Also, the academic advisors at NYU ensure the smooth and successful transition of international students to a new campus, climate, culture, and country through the provision of programs and activities that meet these students' needs (McFarlane, 2015).

Zhang (2015) stated that academic advisors have challenges regarding their awareness of cultural differences between the host and home country of international students. She argued that some advisors displayed certain attitudes in learning other cultures, and strategies employed in advising international students. Zhang (2015) further stated that academic advisors acknowledged the challenges that international students have such as low English proficiency, unfamiliarity with the higher education system of host country, and difficulties in evaluating and transferring course credits that were earned in their home country. Also, some academic advisors lack knowledge regarding the educational requirements or system of countries where international students come from (Zhang, 2015). Some academic advisors acknowledged their lack of formal training on diversity and intercultural communication and that necessitates the need to improve the understanding and ability of these academic advisors so that they can adequately and competently advise international students (Zhang, 2015; Natali, 2005).

Networking Support

Literature shows that international students often face challenges such as difficulty in finding accommodation in safe neighborhoods that are relatively close to their community college campuses, exploitation by employers, personal safety, and establishing new social networks (Mori, 2000; Paltridge et al, 2012). Several studies conducted in the past showed that community colleges that encourage international students to build social networks find that these students more easily overcome their challenges as a result of their strong social networks (McFarlane,2015; Tolman, 2017; Hellman et al, 2016) due to the different culture that these

students come from that make them to be faced with different norms, customs, and attitudes which make it difficult for them to be able to navigate life in their host country (Paltridge et al, 2012).

However, helping international students build support networks by forming new friendships is crucial to counteracting the feelings of isolation, loneliness, and frustration that may arise from studying abroad (Hellman et al, 2016). Furthermore, friendships between international students and host nationals benefit the local community by promoting intercultural communication and understanding (Hellman et al, 2016). International students found participation in friendship family programs organized by their colleges as a way to interact with their host country, families, improve on their English language proficiency, and engage in friendly social interactions (Hellman et al, 2016; Bhochhibhoya et al, 2017).

Although, cultural and language differences created challenges in the interactions between international students and their host families, participating families in the friendship family program however, found participation as a way of learning about foreign cuisines, culture, and language (Hellman et al, 2016). Also, these families found social and community based events like concerts, country fairs, and horse shows as successful platforms to interact with students as well (Bhochhibhoya et al, 2017; Hellman et al, 2016).

Academic Curriculum/Course Outline

Differences in academic curricular and design in international students' host and home countries are obvious in the academic writing and construction of English essays of these students which pose a number of challenges to them. For example, difference in academic writing pose immense challenges to international students with increased perception of

discrimination and diminished self-reliance (Fass-Holmes & Vaughn, 2004; Hung & Hyan, 2010; Martinez & Coloner, 2017).

Guo and Chase (2011) stated that many international students face challenges in integrating into Canadian higher education environment. They identified some of these challenges to include isolation, alienation, marginalization, and low self-esteem. They argued that the internationalization of the curriculum therefore helps to address some of the challenges that international students face in the classroom by providing them with a sense of belonging and relevance.

Findings from studies conducted in the area of internationalization of academic curriculum also show that curriculum holds a special status in the process of internationalization. This is because internationalization cannot be sustained without appropriate curricular (Guo & Chase, 2011; Bond, 2003a). Also, Freeman (1998) argued that internalization of the curriculum is the single most important component among all internationalization strategies.

Internationalization of the curriculum is generally described as the integration of international and intercultural dimension into the course outline, course content and materials as well as teaching and learning activities (Guo & Chase, 2011; Bond, Qian, & Hung, 2003). Literature also shows that faculty members play a significant role in determining the process of internationalizing the curriculum (Altbach, 2002; Bond et al, 2003; Freeman, 1998).

The importance of providing context to the internationalization of academic curriculum in Canada by faculty members was revealed in the All Universities and Colleges, AUCC (2006 & 2007) reports. These reports focused on four important aspects of internationalization of the curriculum. These are, student mobility, internationalization of the curriculum, international development cooperation, and knowledge exports.

Guo and Chase (2011) further identified three approaches that faculty use to internationalize course content to be:

- 1) *Add on approach* which involves adding a reading or an assignment to the existing course content without touching or questioning the main body of the course
- 2) *Curricular infusion approach* which involves infusing the curriculum with international content in the selection of the course materials. It also includes the integration of students' experiences into learning activities, and,
- 3) *Transformation approach* which is the most difficult but with the potential to change people because it enables students to move between two or more worldviews.

Guo and Chase (2011) also argued that the approaches identified above require a shift in the way curriculum is understood and that the approaches produce genuine reform in the curriculum.

Teaching and presentation strategies by faculty that focus on teaching effectiveness across cultures including important topics like classroom management, organization of course content, logical presentation, clear main points and support ideas, audio-visual aids that involve learners through questions and receiving feedback help in the integration of international students into their academic study by faculty (Guo & Chase, 2011). However, a major challenge that still persist in the internationalization of Canadian higher education and its curriculum in its current form is the neo-liberal approach (Guo & Chase, 2011). This neo-liberal approach, Guo & Chase (2011) argued, is driven by economic motives that treat internationalization and global citizenship as business opportunities and marketing strategies.

ESL Program

Martinez and Coloner (2017) argued that acculturative stress arising from lack of proficiency in English language impacts international students' ability to have a full international

education experience. Literature findings also reveal that international students who integrated well with high levels of English language proficiency reported lower levels of discrimination in their activities and interactions (Poyrazli & Lopez, 2007; Feng & Feng, 2013).

International students with low English language skills reported higher levels of home sickness (Andrade, 2006) which led to more complaints of physical issues, anxiety and forgetfulness (Poyrazli & Lopez, 2007). Furthermore, Lin & Scherz (2014) revealed that Asian students appear to struggle the most with language issues because many of them had difficulty understanding lectures from their instructors. These findings agree with Sokolik (2015) who stated that the biggest challenges that international students face are cultural and language, and these students expressed concerns between the connection of academic and social life.

Fass-Holmes and Vaughn (2014) stated that while a minority of international students at the undergraduate level struggle academically, majority of these students struggle with the English language. They revealed that some international students who were weak in the English language still managed to succeed academically because they were enrolled in programs that were not sensitive to English skills like Computer Science, Economics, Finance, and Science, Technology, Engineering, and Math (STEM) courses/disciplines.

Literature also reveals that Test of English as a Foreign Language (TOEFL) scores for international students did not have a correlation with their academic success as measured by their GPA (Tolman, 2017; Fass-Holmes & Vaughn, 2014). These findings are however, inconsistent with the findings of Stoyhoff (1997) who found that TOEFL scores were significantly positively correlated with GPA. The reason for the difference in findings might be due to differences in TOEFL conducted in the 1990s and in 2000s (Fass-Holmes & Vaughn, 2014).

Having a good understanding and command of the English language not only helps international students to improve on their academic success, literature findings also show that international students with better English language ability reported lower levels of acculturative stress (Bai, 2016; Andrade, 2006). There is also a significant correlation between academic success and perceived support from colleges with international students having acculturative stress i.e. students with better academic achievement and more support from their colleges had lower stress levels (Bai, 2016). Furthermore, Bai (2016) revealed that international students with better English language ability were more likely to complete their school work, and research surveys compared to those without adequate knowledge of the English language. Bai (2016) also argued that English language proficiency was not significantly correlated to stress.

The efforts to ensure that international students fully enjoy their international education experience both in and outside the classroom, knowing fully well that language is a strong component of culture led to the development of ESL programs in many colleges and universities in Canada (Guo & Chase, 2011). These colleges and universities run language training centers where international students' level of English language comprehension and understanding are assessed in terms of speaking, listening, reading, and writing.

International students who are not from English speaking countries and who have a challenge with the English language are taught and tested at the center before they are admitted to regular academic programs in these colleges and universities. ESL program has been very successful and has helped many international students to improve on their academic performance (Guo & Chase, 2011) in terms of their grades in their courses when they eventually become admitted to regular academic programs.

International Students' Support Areas at the Macro-Level

Guo and Chase (2011) argued that there is still a gap between the rhetoric (claim that internationalization is now an integral part of institutional strategies in Canada) and the experienced reality. They further argued that this is so, because of the lack of adequate support at the macro (government/societal) level to help international students to successfully integrate into the Canadian academic environment. Hegarty (2014) stated that international students continue to make contributions to the reshaping of academic disciplines in colleges and universities. As a result, the competition for international students continues to grow and increase around the world. Indeed, several other countries in the East such as China, Korea, and Taiwan are also increasing their efforts to not only keep their brightest students at home by preventing them from going to study abroad (Douglass & Edelstein, 2009) but these countries and several others now compete for international students with the Western countries (Gurucz, 2010).

Settlement/Integration Support

International students feel low level of engagement with their local community and there is a gap in the relationship between international students and the local community while they attend school (Kusek, 2015; Ee, 2013). Literature shows that separation of international students from local community fuels a lack of cultural exchange that should be of benefit to local community and international students (Callaway, 2010; Ee, 2013; Hodge, 2002; Ahamad & Szepara, 2003). For example, CBIE (2016) report revealed that international students face severe challenges in terms of settlement services especially during the period of their transition to work or permanent residency. The report further stated that "Settlement agencies have not typically had funding to provide services to international students, and individual institutions may not have the expertise, networks and indeed resources to provide these needed services to students

wishing to remain in Canada, thereby leaving international students without a dedicated service to turn to” (p. 13).

Although international students expressed satisfaction with the quality of education they received from their academic institutions, they suffer from lack of involvement in community activities outside campus due to a lack of awareness, and difficulty in establishing relationships that are meant to keep them involved in community programs (Paltridge et al, 2012). However, arguments have been made that local governments can develop friendly policies and programs that encourage and make it easier for international students to participate in community activities (Kusek, 2015; Paltridge et al, 2012).

Work Rights, Work and Study Permits

International students have limited work rights and limited knowledge about their rights in workplaces which subjects them to exploitation by employers (Ham, 2011; Paltridge et al, 2012; Babacan, Pyke, Bhathal, Gill, Grossman, & Bertone, 2010). Social, economic, political and cultural exclusion have significant consequences for the security and well-being of international students because the more a group is socially excluded, the more vulnerable its members are to misfortune (Babacan et al, 2010). International students due to their legal status and experience of social exclusion therefore require a greater level of both on-campus and off-campus supports from governments at all levels with respect to their work rights and work permits compared to domestic students (Deumert, Marginson, Nyland, Ramia, & Sawir, 2005; Marginson, 2011; Marginson, Nyland, Sawir, & Forbes-Mewett, 2010).

Immigration Services Support

The government of Canada continues to make amendments to Canada’s immigration rules in order to make it easier for international students, not only to immigrate and integrate into

the Canadian culture and society, but to be able to become permanent residents and ultimately citizens after the successful completion of their academic studies (Citizenship and Immigration Canada, CIC, 2008; Trilokekar & Kizilbash, 2013). The opportunity to work, obtain permanent residency and immigrate to Canada also contribute to the increasing number of international students in Canada (Coffey & Perry, 2013; Trilokekar & Kizilbash, 2013; Legusov, 2017; Cudmore, 2005; Begin-Caouette, 2013).

Health Insurance Support

Arnett (2000) stated that students may attend colleges that are far from their family and home in which they have to make personal and independent decisions not only regarding their academic work and social lives but also their health. Provincial/Territorial governments and community college and university administrators in Canada also make significant efforts to ensure that students maintain healthy life styles and avoid risky behaviors. These significant efforts usually focus on specific health concerns such as healthy diet, physical activity, stress and mental health issues (Shive & Morris, 2006; Turner, Perkins, & Bauerle, 2008). It is always beneficial for international students to have a health insurance because it helps them to receive prompt attention and care in addition to covering the different expenses that are related to medical checkups and treatment including in instances where unexpected illness and injury occur (Collins, Rasmussen, & Doty, 2014).

In Canada, although it is mandatory for international students to have a health insurance, the medical coverage that are available to these students differs from one province/territory to another (Canadian Education Center Network, CEC Network, 2002). International students are expected to make their own private health insurance coverage in provinces/territories where they are not covered under the provincial health care plans (CEC Network, 2002). The data provided

in table 9 below reveals that public health insurance for international students is not available in all the provinces and territories in Canada.

For example, in Quebec, the French speaking region of Canada, international students from certain countries such as Belgium, France, Norway, Greece, Denmark, Finland, Luxembourg, Portugal, and Sweden benefit from public health insurance due to the bilateral agreement between the government of Quebec and the governments of these countries (CanadaVisa, 2018). However, the Progressive Conservative government of Manitoba decided to scrap the free health insurance for international students in the province with effect from September, 2018 by making an amendment to the Health Services and Insurance Act earlier in the year (Glowacki, 2008). The Act strips international students of provincial health coverage, a decision the government stated will save \$3.1 million but which made Manitoba the only province in Western Canada where health insurance is no longer free for international students (Glowacki, 2018). In order to ameliorate the hardship the unexpected decision of the government would have on international students in Manitoba, colleges and universities in the province have decided on a private arrangement for these students that will last till the end of the 2018/19 academic year. Thereafter, international students in Manitoba will have to make their own private health insurance arrangement (Glowacki, 2018).

Table 9.

Health Insurance Policies for International Students in Canadian Provinces/Territories

Province	Health Insurance	Basic Requirements
Alberta	Yes	Minimum of 12 months study permit; Minimum of 12 months residency
British Columbia	Yes	Minimum of six month study permit
Manitoba	Yes	Minimum of six month study permit; Minimum of six month residency/year

New Brunswick	Yes	Minimum of three month residency
Newfoundland & Labrador	Yes	Minimum of 12 month study permit
Nova Scotia	Yes	Minimum of 12 month study permit
Ontario	No	
Prince Edward Island	No	
Saskatchewan	Yes	Valid study permit;
Quebec	No, with exceptions	Proof of full time enrollment Some Student Scholarships include provision of health insurance; Students from certain countries such as Belgium, France, Greece, Norway may be eligible for health insurance due to the bilateral agreement between Quebec and these countries
Northwest Territories	Yes	Minimum of 12 month study permit
Yukon	No	

Canada Visa (2018)

Government Policies/Programs

An internationally diverse campus has been admired as one of the hallmarks of internationalization and the value of international students revolves around the benefits of broader national and international goals (de Wit, 2002; Cudmore, 2005; Galway, 2000). As a result, several Organization for Economic Co-operation and Development (OECD) countries such as Canada, Australia, France, Germany, Japan, Netherlands have continued to increase their investments in international education and come up with policies that attract international students to their countries (AUCC, 2002).

In Canada, international education was initially rooted in liberal humanism and driven by humanitarian concerns (Hurabielle, 1998). Today, the humanitarian motivation to recruit international students has declined and it has been replaced by a motivation to boost revenue and export earnings (Currie & Newson, 1998; Walker, 1998; Knight, 1997). With increasing reliance

on immigration to meet growing labor market needs, Canadian government policies at the federal, provincial/territorial levels are geared toward encouraging international students to immigrate to Canada (Trilokekar & Kizilbash, 2013).

In 2008, “Imagine: Education In/Au Canada” program was launched by the Canadian government as the official Canadian brand to market Canadian higher education internationally. The intention of the Canadian government was to use the program as a strategic vehicle in attracting and recruiting more international students to Canada with the hope that these students will choose Canada as their new home upon the successful completion of their academic studies (Trilokekar & Kizilbash, 2013). The success of the strategic program by the Canadian government is evident in the 92% increase in international students in Canada between 2008 when the program was launched and 2015 according to the (CBIE, 2016) report.

Summary

Chapter two of this study, literature review, examined the relevance of the Bronfenbrenner’s theory of human development at the micro, meso and macro levels to this study. Based on available literature, this theory conceptualized the challenges and support areas that are available to international students at the micro, meso, and macro levels i.e. individual, institutional, and government/societal levels. The chapter looked at a brief history of the recruitment of international students in community colleges, the growing importance of international students, international education, current literature on community colleges, the number/percentage of international students in each province/territory in Canada, a breakdown of the international regions and country of origin of international students, and the top five destination countries of international students in community colleges. This chapter also looked at a breakdown of the challenges and support areas that are available to international students at the

micro, meso, and macro levels, and the strategic plan of the Canadian government at the federal and provincial/territorial levels regarding international students' recruitment.

CHAPTER III

RESEARCH METHODS AND PROCEDURES

This chapter described the study design, research methods and procedures that were used to collect and analyze data, the participants in the study, variables of interest, data collection procedures, reliability measures and data analysis procedures, limitations of the study, and summary. As discussed in chapter one, the purpose of this study was to examine the impact of the various support areas at the three levels of Bronfenbrenner's theory on international students' academic success, as measured by their self-reported GPA and perceived success. Specifically, this study sought to examine the significance of the support areas that were available to international students in community colleges for their academic success. It also sought to determine the most essential or important support areas in international students' academic success in terms of their self-reported GPA and perceived success.

Research Questions and Hypotheses

In order to fully understand the impact of these support areas on international students' academic success, several levels of inquiries were made. These inquiries involved support areas of international students at the micro-level (individual), meso-level (institutional), and macro-level (government/societal). Therefore, the following research questions guided this study:

- 1) Do international students use all the support areas at the micro-, meso-, and macro-levels? Hypothesis 1: International students may not use or take advantage of all the support areas at the micro-, meso-, and macro-levels.
- 2) What is the relationship between the support areas of international students at the micro-, meso-, and macro-levels and their academic success as measured by their self-

reported GPA and perceived success? Hypothesis 2: There is a significant correlation between the support areas at the micro-, meso-, and macro-levels and self-reported GPA and perceived success.

3) Which of these support areas is most strongly related to international students' academic success as measured by their self-reported GPA and perceived success?

Hypothesis 3: Support areas at the meso-level, i.e. institutional level, are more strongly and positively correlated to the academic success of international students, as measured by their self-reported GPA and perceived success, compared to the support areas at the other two levels i.e. micro and macro.

Participants

The participants in this study were drawn from the international student population in the main campus of a large community college in Western Canada who are studying across different academic programs in the college at the certificate, diploma, and post graduate diploma levels. There were approximately 1,500 international students in the community college where the participants in this study were drawn from at the time they were surveyed in the winter academic semester of 2019. A total of 399 international students were recruited to participate in this study.

Peers (1996) stated that sample size is an important feature of a study design with the capacity to influence the detection of significant differences, relationships or interactions. In determining sample size calculations, it is important to determine the influence of categorical variable in data analysis (Bartlett, Kotrlik, & Higgins, 2001). Furthermore, if categorical variable plays a role in data analysis, categorical sample size formulas should be used to determine sample size (Bartlett et al, 2001).

Based on the categorical sample size formula that was used for a population size of 1,500 with a margin of error of .05 for categorical data with $p = .50$ and $t = 1.96$, it was suggested that the sample size for a population of 1,500 should be 306 according to (Bartlett et al, 2001). The response rate of the Qualtrics survey that were distributed was very high and hugely successful because 399 international students were recruited from the community college where the participants were drawn.

Demographic Characteristics of the Sample

Table 10 displayed the demographic review of the participating students in the survey. The sample involved predominantly male students who were older than traditionally-aged students. The majority of the students were from Asia, which was not surprising as the national trends in Canada show that the majority of international students comes from the Asian countries with China being the largest supply (CBIE, 2016; Katem, 2018). Also, most of the students in the sample did not have any financial aid which may be the reason why most of them worked part-time.

Table 10.

Demographic Characteristics of the Sample (n=399)

Characteristics	N	%
Gender		
Male	235	58.9
Female	157	39.3
Choose not to identify	2	.5
Missing	5	1.3
Age in Years		
18 to 19	58	14.6
20 to 21	85	21.3
22 to 24	103	25.8
25 to 29	74	18.6
30 to 39	49	12.6
40 to 49	13	3.5
50 to 59	2	.6
Missing	15	3.8

Ethnicity		
White/Caucasian	12	3
African/Caribbean/Black	11	2.3
Asian	331	83
South American	23	5.8
Mexican	2	.5
Middle East	9	2.3
Other	5	1.3
Missing	6	1.5
Employment Status		
Unemployed	153	38.3
Working Part-time	240	60.2
Missing	6	1.5
Financial Aid		
Yes	113	28.3
No	278	69.7
Missing	8	2.0

Academic Characteristics of the Sample

Tables 11 to 15 provided a summary of the academic characteristics of the participants in this study.

Academic Qualifications. Table 11 provided a summary of the academic qualifications that the international students were pursuing and expecting to achieve upon successful completion of their studies. The majority of the students were studying for a diploma academic credential. That is understandable because virtually every community college offers a diploma qualification with the exception of a few, such as the community college in this study that offers PGD, degree, diploma, and certificate qualifications. However, international students are not typically admitted to degree programs in the community college where this study was conducted, which explained why there were no data regarding students pursuing degree programs.

Table 11.

<i>Academic Qualification Pursued</i>		
Academic Qualification	n	%
Post graduate diploma (PGD)	98	24.6
Diploma	231	57.9

Certificate	70	17.5
Total	399	100.0

Academic Programs. As indicated in Table 12, the majority of the students was pursuing their academic programs in Business & Applied Arts, which was the largest department in this community college. A major reason for the high number of students in that particular academic program was because students were typically admitted year round i.e. in August, January, and May in this program. This was unlike other programs where students were admitted only once a year, usually in August.

Table 12.

<i>Academic Programs</i>		
Academic Program	n	%
Business & Applied Arts	175	43.9
Hospitality & Culinary Arts	27	6.8
Continuing Education	24	6.0
Skilled Trades & Technology	118	29.6
Educations, Arts & Sciences	40	10.0
Health Sciences & Community Services	15	3.8
Total	399	100.0

Year of Admission. Table 13 provided a summary of the year of admission of the students who were surveyed in this study. Most of the students were admitted in fall of 2018 because participants in this study were expected to have spent at least a semester in the community college to be able to provide their insights in response to the survey questions. The fewer number of students prior to 2017 was due to the fact that programs in community colleges (with the exception of degree programs) usually took one to three years to complete although students usually had up to five years to complete their program. This may be the reason why there were only one student each between fall of 2015 and winter of 2016.

Table 13.

<i>Year of Admission</i>		
Academic Year	n	%
2015 Fall	1	.3
2016 Fall	1	.3
2016 Winter	1	.3
2017 Fall	41	10.3
2017 Winter	7	1.8
2018 Fall	288	72.2
2018 Winter	58	14.5
2018 Summer	1	.3
Missing	1	.3
Total	399	100.0

Academic Semester. Table 14 provided a summary of the academic semester of the participating students in this study. It showed that all the participants had spent at least more than a semester in the community college where the study was conducted, which guaranteed more thoughtful responses to the survey questions pertaining to their community college experience and perceptions of academic success.

Table 14.

<i>Academic Semester</i>		
Academic Semester	n	%
2 nd Semester	288	72.2
3 rd Semester	49	12.3
4 th Semester	52	13.0
5 th Semester	9	2.3
Missing	1	.3
Total	399	100.0

Indication of Program Completion. From the data that were provided in Table 15, it was evident that most of the international students surveyed indicated that they would complete their academic program in the community college. That could be seen as a reflection of these students' satisfaction with both their academic and non-academic experiences in the community college.

Table 15.

<i>Indication of Program Completion</i>		
Program Completion	n	%
Yes	348	87.2
No	18	4.5
May be	32	8.0
Missing	1	.3
Total	399	100.0

Variables of Interest

Statistical analysis of this study included items from the Qualtrics survey that probed students' agreement with the importance of various areas of support. Table 16 provided information regarding the classification of various areas of support into the three levels per the theoretical framework, such as the micro-level, meso-level, and macro-level. These levels were the Independent Variables (IVs) in this study.

There were items within each of these support areas at the micro-, meso-, and macro-levels as seen in the Qualtrics survey (Appendix A) that students completed. For example, within the micro-level, there were four items in the faculty support, four items in the mentoring support, four items in the family support, and five items in the peer support. In all, there were 17 items in the support areas at the micro-level that consisted of faculty support, mentoring support, family support, and peer support. Within the meso-level, there were four items in the mental health/counselling support, four items in the academic advisor support, and four items in the networking support as well. In all, there were 12 items in the support areas at the meso-level that consisted of mental health/counselling support, academic advisor support, and networking support.

Also, within the macro-level, there were four items in the work permit support, four items in the study permit support, four items in the immigration support, and four items in the public

health insurance support. In all, there were 16 items in the support areas at the macro-level that consisted of work permit support, study permit support, immigration support, and public health insurance support.

Two dependent variables (DVs) were the outcomes of academic success. These were self-reported GPA and perceived success.

Table 16.

Three-Level Classification of Support Areas

Level	Support Area Items (IVs)	Outcomes (DVs)
Micro (All the items were surveyed i.e. Faculty, Mentoring, Family, & Peer Supports)	Faculty Support Mentoring Support Family Support Peer Support	Self-Reported GPA Perceived Success
Meso (All the items were surveyed i.e. Mental health/Counselling, Academic Advisor, and Networking Supports)	Mental health/Counselling Academic Advisor Support Networking Support	Self-Reported GPA Perceived Success
Macro (All the items were surveyed i.e. Work Permit, Study Permit, Immigration Services, and Public Health Insurance Supports)	Work Permit Support Study Permit Support Immigration Services Support Pub.Health Insurance Support	Self-Reported GPA Perceived Success

Table 17 provided more detailed specifications of the outcome variables. Two survey items yielded the self-reported data on a continuous scale.

Table 17.

Description of Outcome Variables

Variable Name	Description	Type/Scale	Self-reported
GPA	Students were asked their overall cumulative GPA in their first semester. This ranged from 0.0-0.4, 0.5-0.9, 1-1.4, 1.5-1.9, 2-2.4, 2.5-2.9, 3-3.4, 3.5-3.9, 4-4.5	Continuous	Yes

Perceived Academic Success	Students were asked on a Likert scale 1 to 5 with 1=Strongly disagree, 2=Disagree, 3=Somewhat agree, 4=Agree, 5=Strongly agree in the survey ...you are pursuing an academic program in the college? ...about the grades you got on tests and assignments in your academic program? ...in achieving the learning goals that you set for yourself? ...when it comes to knowing that you made an honest effort to make progress during the year? ...in doing all the work, meeting deadlines, keeping up with reading, studying, etc.?	Continuous	Yes
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Table 18 summarized the distribution of DV i.e. self-reported GPA, which showed that the majority of the student sample was on a higher achieving end of the continuum at the range of 3.5 to 3.9 and 4 to 4.5, while only a few of the sample were falling behind the minimum pass, such as 2.0 and below.

Table 18.

<i>Self-Reported GPA</i>		
GPA Range	N	%
1 to 1.4	2	.5
1.5 to 1.9	9	2.3
2 to 2.4	16	4.0
2.5 to 2.9	53	13.3
3 to 3.4	70	17.5
3.5 to 3.9	111	27.8
4 to 4.5	137	34.3
Missing	1	.3
Total	399	100

As shown in Table 19, the majority of the international students in the sample provided positive responses regarding their perceived success. The highest responses of *strongly agree* was in the survey items “...you are pursuing an academic program in the college?” and “... when it comes to knowing that you made an honest effort to make progress during the year?” and “... in doing all the works, meeting deadlines, keeping up with the reading, studying etc.?”

Furthermore, the highest responses of *agree* in the survey items were “... about the grades you got on tests and assignments in your academic program?” and “... in achieving the learning goals that you set for yourself?” and “... when it comes to knowing that you made an honest effort to make progress during the year?” in addition to “... in doing all the work, meeting deadlines, keeping up with the reading, studying etc.?”

The highest responses of *strongly disagree* had to do with survey items “... about the grades you got on tests and assignments in your academic program?” and “... in achieving the learning goals that you set for yourself?” respectively. Finally, the highest responses of *disagree* was in relation to the survey item that had to do with “... in achieving the learning goals that you set for yourself?”

Table 19.

Perceived Academic Success Survey Item responses in percentage (n=399)

Survey	Strongly disagree (%)	Disagree (%)	Somewhat agree (%)	Agree (%)	Strongly agree (%)	No response (%)	Total (%)
...you are pursuing academic program in the college?	1.3	.5	10.8	38.8	48.1	.5	100.0
...about the grades you got on tests and assignments in your academic program?	1.5	2.5	16.0	48.6	31.1	.3	100.0

...in achieving the learning goals that you set for yourself?	1.5	5.3	16.8	47.4	28.8	.3	100.0
...when it comes to knowing that you made an honest effort to make progress during the year?	.8	1.0	9.8	41.9	46.1	.5	100.0
...in doing all the work, meeting deadlines, keeping up with the reading, studying, etc.?	1.3	2.5	12.8	40.6	42.6	.3	100.0

Data Collection Procedures

Human Subjects Research Permissions were sought and granted from the Institutional Review Boards of the community college where the participants were enrolled and from the researcher's home institution.

The questionnaire was developed using Qualtrics. As stated earlier, there were approximately 1,500 international students in the community college where the participants in this study were drawn from at the time they were surveyed in the winter academic semester of 2019. A total of 399 international students who had spent at least an academic semester in the community college were recruited to participate in the hard copy one-on-one Qualtrics survey that were distributed to international students during their class period. The distribution of the Qualtrics survey was done at the start of the winter 2019 academic semester after obtaining the human subject research permission from the community college where this study took place, and from the researcher's home institution. Necessary approvals were also sought and obtained from the chairs of the various academic programs with international students in the community college

as well as the concerned academic coordinators and instructors. The contacts of the chairs of the various academic programs with international students were obtained from the Center for International Education and Global Partnerships office of the community college where this study took place.

Once the necessary Human Subjects Research Permissions were obtained, necessary arrangements were made with department chairs and academic coordinators of academic programs with high number of international students. These chairs and academic coordinators also provided information regarding instructors with international students registered in their classes in addition to their class periods. An arrangement was also made with the instructors who provided about 20 minutes of their class period to have the interested students to complete the survey as it was strictly voluntary. Some Instructors provided time at the beginning of classes, some during break time, while a few others provided time about 20 minutes before the end of their classes for the students to complete the survey. Classes hold in the community college between 8am and 10pm, Monday to Friday, during regular academic session. These students were in their second semester and upward as participants were expected to have spent at least an academic semester in the community college. The hard copy of the survey was collected from each student immediately the survey was completed during their class periods.

Reliability Measures and Data Analysis Procedures

A questionnaire was developed and provided to the participants to complete. A hard copy of the questionnaire was distributed to participants in class. The questionnaire was divided into three parts A, B, and C respectively. Part A was made up of student variables, and perceived success with nine and seven questions respectively. In part B, participants were asked questions regarding their awareness of, use of, and future use of supports at the micro-, meso-, and macro-

levels. A total of 33 questions were asked participants in part B of the questionnaire. In part C of the survey, participants were asked to complete their responses to items (statements) provided to a 5-point Likert scale. The 5-point Likert type scale was: 1 = Strongly Disagree, 2 = Disagree, 3 = Somewhat Agree, 4 = Agree, 5 = Strongly Agree in each of the support areas at the micro-, meso-, and macro-levels.

For example, at the micro-level, there were four items each at the faculty, mentoring, and family support areas respectively, while the peer support had five items. At the meso-level, there were four items each at the mental health/counselling, academic advisor, and networking support areas. At the macro-level, there were also four items each at the work permit, study permit, immigration services, and public health insurance support areas.

The survey instrument was adapted from a research study on perceived success in the MBA/MPA Program by Butz, Stupnisky, Peterson, and Majerus (2014). The scale was modified to a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree) and used to determine the academic success of participating international students in this study at the end of their first semester. As stated above earlier, the participants' academic success was measured in terms of their self-reported GPA and perceived success.

The survey data were analyzed in three parts. The first part was the descriptive part of the sample that provided a general description of the characteristics of the participants' data that were collected in terms of their age, gender, country of origin, sources of support, and length of stay in Canada. The second part was the reliability statistics that was used to determine the internal consistency of the summated rating scale, while the third part was the correlation and linear regression analysis to determine whether the support areas had relationship with international students' academic success. International students' academic success was measured

based on their self-reported GPA and perceived success. The correlational study measured international students' academic success in terms of the support areas at the micro-, meso-, and macro-levels.. Descriptive statistics was run to evaluate variable distributions. The descriptive part of the survey was at the end of the survey because of the assumption that respondents would feel more comfortable to provide personal background information after they know what the purpose of the research study was after answering the research questions first (Xu, 2016).

Data collection was cross-sectional i.e. data were collected from international students across different academic departments and levels of study in the community college where the study was conducted. As expected, the results from the analysis showed the impact of support areas on international students' academic success. The results from the analysis also revealed the awareness level of international students regarding these support areas. Finally, the results from the analysis revealed the most strongly related support area(s) to international students' academic success based on their self-reported GPA and perceived success in order to be able to graduate, and join the Canadian workforce upon the successful completion of their academic study.

The Cronbach's alpha, often symbolized by the lower case Greek letter α , is commonly used to determine the internal consistency (reliability measures) of summated rating scales (Cronbach, 1951). The Cronbach alpha is excellent if $0.9 \leq \alpha$, good if $0.8 \leq \alpha < 0.9$, and acceptable if $0.7 \leq \alpha < 0.8$. As Table 20 indicated, the Cronbach alpha for the 17 items at the micro-level was 0.8 which shows that the internal consistency or reliability measure of these items was good.

Table 20.

<i>Reliability Statistics at the Micro-Level</i>				
Cronbach's Alpha	Number of Items	Mean	Variance	Std. Deviation
.836	17	64.78	91.492	9.565

The Cronbach's alpha for the 12 items at the meso-level area of support was 0.9 which shows that the internal consistency or reliability measure of these items was excellent (See Table 21).

Table 21.

Reliability Statistics at the Meso-Level

Cronbach's Alpha	Number of Items	Mean	Variance	Std. Deviation
.920	12	39.64	103.583	10.178

The Cronbach's alpha for the 16 items at the macro-level was 0.9 which shows that the internal consistency or reliability measure of these items was also excellent (See Table 22).

Table 22.

Reliability Statistics at the Macro-Level

Cronbach's Alpha	Number of Items	Mean	Variance	Std. Deviation
.895	16	62.23	121.461	11.021

Limitations of the Study

This study assessed self-reported data provided by international students. The participants in this study were international students who were pursuing certificate, diploma, and post graduate diploma credentials at a large community college in Western Canada. The self-reported data were obtained via a hard copy Qualtrics survey that were distributed to participants during class period.

Also, international students' enrolment figures, and the status of these students differed from one semester to another based on program offering, visa issuance and time of arrival on campus of international students. Therefore, identifying the enrolment figures and status of the students surveyed at the time the survey was completed may not fully represent the individual enrolment experience of a student (Crostra, 2013).

The research study collected information provided by respondents (international students) from various academic programs offering different academic credentials within the same college. However, different programs admit international students at different times. For example, some academic programs admit international students only in August, while some other academic programs admit international students throughout the year i.e. August, January, and May. Due to the differences in admission dates across different academic departments and programs, some students had spent a longer time than some others at the time they were surveyed. As a result, some international students may have taken better advantage of the support areas than some others which may or may not have impacted their academic success in their first semester.

Finally, a number of factors was not accounted for in this study, such as the degree of college readiness of international students for a rigorous academic study in a developed world, the differences in academic curriculum between these students' home country and their host country, and their level of acculturation may have contributed to the results of this study.

Summary

This chapter was organized to explain research methods and procedures, participants, variables of interest, data collection procedures, reliability measures and data analysis procedures, limitations of the study, and summary. Analysis of this research study examined the impact of support areas at the micro-, meso-, and macro-levels in community colleges on international students' academic success based on their self-reported GPA and perceived success.

CHAPTER IV

RESULTS OF THE STUDY

I performed a series of statistical analysis of the data to address each research question and three research hypotheses of the study. The results were organized and presented by each of the research questions and related hypotheses.

Review of Research Questions

In order to fully understand the impact of these support areas on international students' academic success, several levels of inquiries were made. These inquiries involved support areas of international students at the micro-level (individual), meso-level (institutional), and macro-level (government/societal). Therefore, the following research questions guided this study:

- 1) Do international students use all the support areas at the micro-, meso-, and macro-levels?
- 2) What is the relationship between the support areas of international students at the micro-, meso-, and macro-levels and their academic success as measured by their self-reported GPA and perceived success?
- 3) Which of these support areas is most strongly related to international students' academic success as measured by their self-reported GPA and perceived success?

Review of Research Hypotheses

Brian (2006) averred that research questions should be driven by the hypotheses rather than the data i.e. the research questions and hypotheses should be developed by the start of the study. A good hypothesis must be based on a good research question at the start of the study and should drive data collection for the study according to the scholars (Hulley, Cummings, Browner, Grady, & Newman 2007). They inferred that when formally testing statistical

significance, the hypotheses should be stated as “null” hypotheses. The purpose of the hypothesis testing is to make an inference about the population of interest based on the sample that is obtained from the population (Farrugia, Petrisor, Farrokhyar, & Bhandari, 2010). Furthermore, these scholars stated that after establishing a null hypotheses, the researcher would form alternative hypotheses that show the nature of the difference. At the end of the study, the null hypotheses will be statistically tested and if the findings are statistically significant, we reject the null hypotheses and accept the alternate hypotheses and vice versa (Farrugia et al, 2010). Based on the research questions and the review of the literature, the research hypotheses established for this study were:

- 1) International students may not use or take advantage of all the support areas at the micro-, meso-, and macro-levels.

Literature reveals that extra-curricular and co-curricular activities at the meso-level may positively contribute to the academic success of international students (Glass & Westmount, 2014) and help some international students to better adjust to their foreign environment (Lee & Ciftes, 2014; Roesch et al, 2006), which ultimately aid their academic success. However, there are certain instances where international students still shy away from using support areas that could be beneficial to their attainment of academic success in terms of their self-reported GPA and perceived success. For example, due to differences in cultural beliefs about mental health, associated stigmas and unfamiliarity with these resources, international students do not use services that have to do with mental health programs, wellness and counselling centers in spite of the promotion of these support areas in many community colleges (Aubrey, 1991; Brinson & Kottler, 1995; Bradley et al., 1995).

The indifference of international students to mental health programs and counselling centers has led to the under-utilization of mental health services and social support services in their campuses. Bhochhibhoya et al. (2017) argued that due to this indifference, it is possible that international students might be facing severe mental health problems without being aware.

2) There is a significant correlation between the support areas at the micro-, meso-, and macro-levels and international students' academic success as measured by their self-reported GPA and perceived success?

Literature reveals that there is a significant correlation between the support areas at the micro-level (individual), meso-level (institutional), and macro-level (government/societal) and international students' academic success as measured by their self-reported GPA and perceived success. For example, at the micro-level, faculty, family, peer/course mate, roommate, and mentoring supports play significant roles - thus showing a significant correlation - to international students' academic success according to (Andrade, 2006; Grayson, 2008; Perry, 2016; Mamiseishvili, 2012; Woodrow, 2006; Tolman, 2017; Xu, 2015).

At the meso-level, Bai (2016) identified perceived support from the college as a significant negative predictor of acculturative stress i.e. support from institution is very important to international students in their acculturative process and academic success. Literature also reveals that institutional supports such as acculturation, socialization, networking, inclusion, mental health, and financial aid supports that international students get have a positive correlation to their academic success (Kuo & Roysirca, 2004; Wei et al, 2007; McFarlane, 2015; Sullivan & Kashubeck-West, 2015; Thomson & Esses, 2016; Constantine, Okazaki, & Utsey, 2004; Zhang, 2015).

Finally, at the macro-level, literature reveals that immigration, public health insurance, study permit, work permit, and government sponsored and organized settlement services help international students to have a sense of acceptance and belonging, and enhanced confidence as legal students which increases their desire and decision to attend classes punctually, and to be more active and expressive in class. These supports significantly correlates to their academic success as well (Hegarty, 2014; Trilokekar & Kizilbash, 2013; Karuppan & Barari 2011; Kusek, 2015; Natali, 2005; Paltridge et al, 2012; Schindler, 1999).

3) Support areas at the meso-level i.e. institutional level are more positively correlated to the academic success of international students, as measured by their self-reported GPA and perceived success, compared to the support areas at the other two levels i.e. micro and macro.

Andrade (2006) argued that the academic success of international students depends on the supports available to them both in and outside the classroom. The supports that are available to these students outside the classroom i.e. the meso-level (institutional) where they spend more hours than in the classroom may be the most important to their academic success. Several support areas that have been identified as very important to the academic success of international students take place at the meso-level. These support areas include ESL programs (Andrade, 2006; Mamiseishvili, 2012; Woodrow, 2006; Zhang, 2015; Poyrazli & Lopez, 2007; Fass-Holmes & Vaughn, 2014), academic advising (McFarlane, 2015), counselling/mental health supports (McFarlane, 2015; Mori, 2000; Bai, 2016; Feng & Feng, 2013), social, networking, and inclusion programs (Andrade, 2005; Gomez, Urzua, & Glass, 2014; Andrade, 2006; Darner, 2007; McFaul, 2016; Liu, 2009; Bhochhibhoya et al., 2017; Hendrickson et al., 2011), and host

family programs (Guo & Chase, 2011; Jandt, 2007; Kusek, 2015; Schindler, 1999; Ristner et al., 2000; Hellman et al., 2016).

Research Question One

The first question pertained to international students' utilization of the support areas at the micro-, meso-, and macro-levels. To answer research question one, I analyzed the data via SPSS using descriptive statistics to determine percentage distribution of international students' awareness of, current utilization, and potential utilization of the support areas at the micro-, meso-, and macro-levels. See Tables 23 – 25 for a summary of the response distributions.

Table 23 and Figure 1 showed that international students did not utilize all the support areas at the micro-level. This was revealed by an examination of each of the support areas at the micro-level i.e. faculty, mentoring, family, and peer supports. For example, the majority of the students indicated that they were aware of supports provided by faculty, some students indicated that they were not aware of supports provided by faculty, while very few students did not complete that portion of the survey. Also, more than half of the students indicated that they utilized faculty support, about a third of the students indicated that they did not, while a tiny number of the students did not provide any response. However, the majority of the students indicated that they would take advantage of faculty support in the future, a small number of students indicated that they would not, while a smaller number of students did not complete that portion of the survey.

Regarding mentoring support, not all the students in the sample used this support as well. From Table 23, a higher number of students indicated that they were aware of the support, about a fifth of the students surveyed indicated that they were not, a tiny number of students did not complete that portion of the survey. Furthermore, less than half of the students surveyed

indicated that they used the support, more than half of the students surveyed indicated that they did not, while very few students did not provide any response. A greater number of the students who were surveyed indicated that they would use the mentoring support in the future, about a fifth of the students surveyed indicated that they will not, while a few number of the students surveyed did not provide any information in that regard.

Another support area at the micro-level that was examined in the survey was the family support where the majority of the students indicated that they were aware of their family support, less than a fifth of the students surveyed indicated that they were not aware, and a tiny few number of students did not respond. Moreover, the majority of the students indicated that they use their family support, less than a third of the students indicated that they did not, while a few number of the students who were surveyed did not respond. A greater number of the students surveyed indicated that they will use their family support in the future, less than a fifth of the students surveyed indicated that they will not, while a very few number of the students surveyed did not complete that portion of the survey.

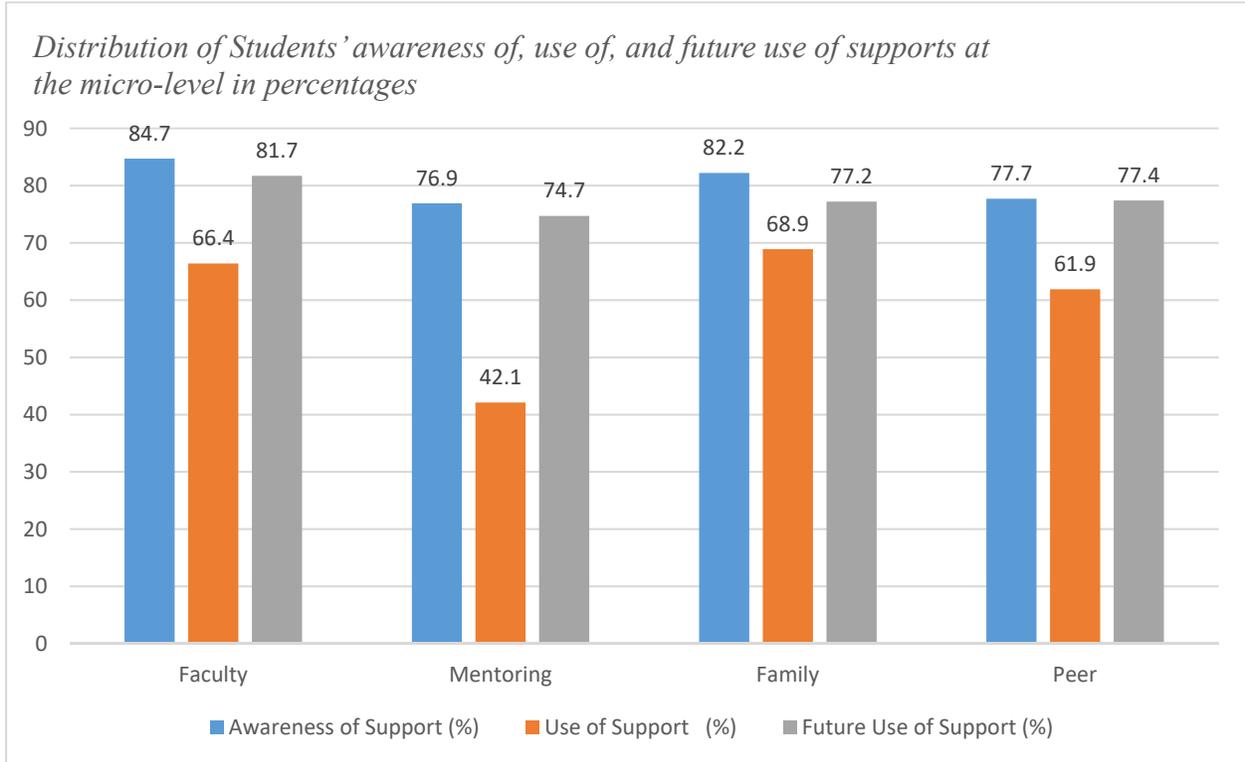
Finally, the last support area at the micro-level was the peer support where the majority of the students surveyed indicated that they were aware of peer support, less than a fifth of the students indicated that they were not aware, and a tiny few number of the students did not complete that portion of the survey. Also, the majority of the students indicated that they use peer support, about a third of the students did not, while a few number of the students did not provide any response. As obtained in the other support areas under the micro-level, a greater number of the students who were surveyed indicated that they will use peer support in the future, less than a fifth of the students surveyed indicated that they will not use the support in the future, while a few number of the students who were surveyed did not respond.

Table 23.

Distribution of Students' awareness of, use of, and future use of supports at the micro-level in numbers and percentages

Micro-Level Support Area	Awareness of Support (n)	Use of Support (n)	Future Use of Support (n)	Awareness of Support (%)	Use of Support (%)	Future Use of Support (%)
Faculty						
Yes	338	265	326	84.7	66.4	81.7
No	54	124	55	13.5	31.1	13.8
Missing	7	10	18	1.8	2.5	4.5
Total	399	399	399	100.0	100.0	100.0
Mentoring						
Yes	307	168	298	76.9	42.1	74.7
No	80	217	83	20.1	54.4	20.8
Missing	12	14	18	3.0	3.5	4.5
Total	399	399	399	100.0	100.0	100.0
Family						
Yes	328	275	308	82.2	68.9	77.2
No	63	115	75	15.8	28.8	18.8
Missing	8	9	16	2.0	2.3	4.0
Total	399	399	399	100.0	100.0	100.0
Peer						
Yes	310	247	309	77.7	61.9	77.4
No	76	136	72	19.0	34.1	18.0
Missing	13	16	18	3.3	4.0	4.5
Total	399	399	399	100.0	100.0	100.0

Figure 1.



Note: Percentage distribution of international students showing their awareness, use of, and future use of support areas at the micro-level.

The trend that was observed from the data that were provided in Table 23 was also repeated in Table 24, which revealed that international students did not use all the support areas at the meso-level. For example, the majority of the students surveyed indicated that they were aware of mental health/counselling support, about a third of the students surveyed indicated that they were not aware, while a tiny few number of students did not respond. Also, about a fifth of the students who were surveyed indicated that they utilize the mental health/counselling support, the majority of the students indicated that they did not utilize the support while a few number of students did not complete that portion of the survey. However, a larger number of the participants i.e. students indicated that they would utilize the mental health/counselling support

in the future, about a third of the students indicated that they would not, while a few number of students did not complete that portion of the survey.

Regarding the use of academic advisor support, the majority of the students indicated that they were aware of the support, less than a fifth of the students were not aware, and a tiny few number of students did not respond. Also, close to half of the students who were surveyed indicated that they use the support, about half of these students indicated that they did not use the support, while a tiny few number of the students did not complete that portion of the survey. Moreover, the majority of the students indicated that they would use the academic advisor support in the future, less than a fifth of the students indicated that they would not, while a tiny few number of the students did not complete that portion of the survey.

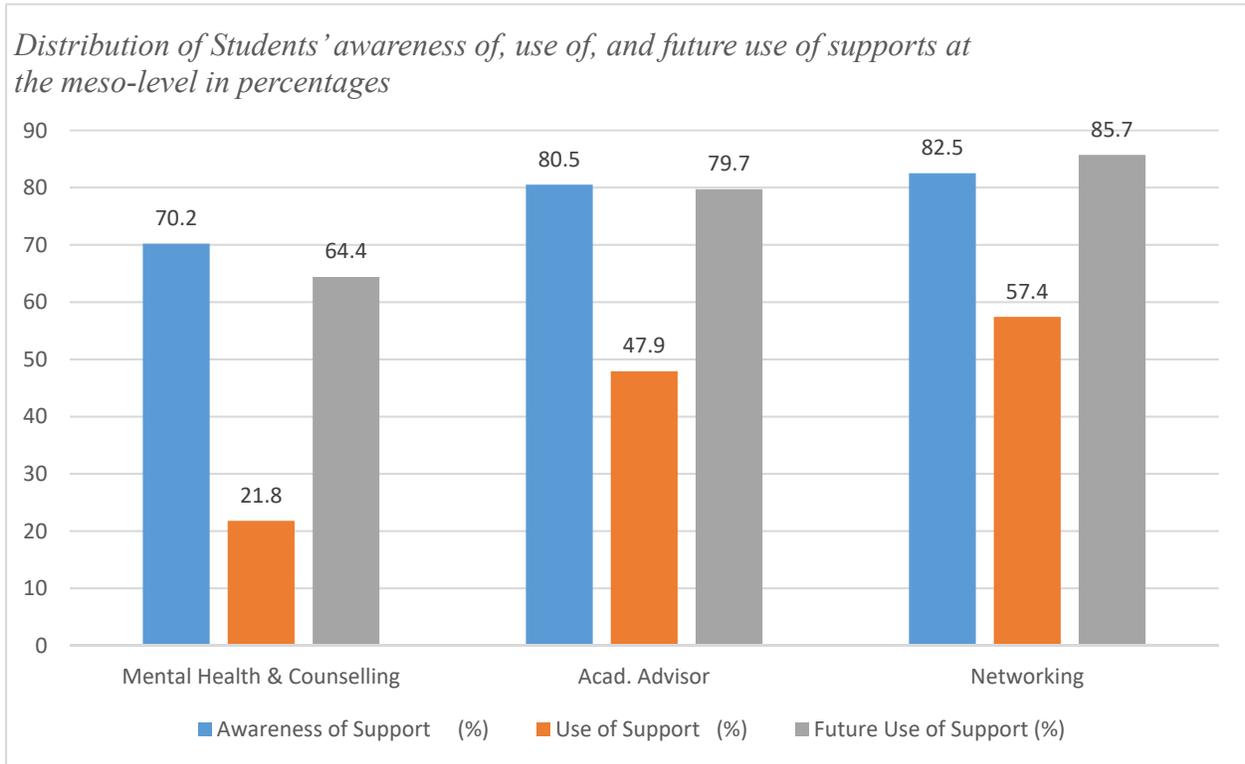
The last support area under the meso-level that was examined in the survey i.e. networking, refers to events organized by the community college such as welcome party for new international students, orientation, excursions, alumni events, and other events organized through the student association such as Red Talk and Turban Day. Table 24 revealed that the majority of the students were aware of the networking support, while less than a fifth of the students were not aware of the support. Furthermore, more than half of the students surveyed indicated that they use the networking support, less than half of these students did not, while a very tiny few students did not indicate any response. Finally, a greater number of the students indicated that they would use the networking support in the future, few students indicated that they would not, while a very tiny few students did not respond to that portion of the survey.

Table 24.

Distribution of Students' awareness of, use of, and future use of supports at the meso-level in numbers and percentages

Meso-Level Support Area	Awareness of Support (n)	Use of Support (n)	Future Use of Support (n)	Awareness of Support (%)	Use of Support (%)	Future Use of Support (%)
Mental Health & Counselling						
Yes	280	87	257	70.2	21.8	64.4
No	111	296	125	27.8	74.2	31.3
Missing	8	16	17	2.0	4.0	4.3
Total	399	399	399	100.0	100.0	100.0
Acad. Advisor						
Yes	321	191	318	80.5	47.9	79.7
No	71	199	68	17.8	49.9	17.0
Missing	7	9	13	1.8	2.3	3.3
Total	399	399	399	100.0	100.0	100.0
Networking						
Yes	329	229	342	82.5	57.4	85.7
No	70	168	54	17.5	42.1	13.5
Missing	0	2	3	0	.5	.8
Total	399	399	399	100.0	100.0	100.0

Figure 2.



Note: Percentage distribution of international students showing their awareness, use of, and future use of support areas at the meso-level.

Table 25 revealed that international students did not use all the support areas at the macro-level as well. An examination of the support areas at the macro-level i.e. work permit, study permit, immigration, and public health insurance supports revealed that international students do not use all these support areas. Regarding work permit, more than a third of the students surveyed indicated that they had a work permit, more than half of these students indicated that they did not, while a small number of students did not complete that portion of the survey. Also, about a tenth of the students who were surveyed indicated that they had renewed their work permit, the majority of the students had not renewed their work permit, while less than a tenth of the students surveyed did not complete that portion of the survey. However, a greater number of the international students who participated in the survey indicated that they would

renew or obtain a work permit in the future, about a fifth of the students indicated that they would not, while a small number of students did not complete that portion of the survey.

On study permit, virtually all the students indicated that they had study permit, while a tiny few number of students did not. Moreover, about a third of the students indicated that they had renewed their study permit, the majority of the students indicated that they had not, while a tiny few number of students did not provide any response. Finally, less than half of the students surveyed indicated that they would renew their study permit in the future, less than half of the students would not, while a few students did not complete that portion of the survey. The students who indicated that they will not renew their study permit in the future were most probably students who were about completing their academic study at the time they were surveyed.

The other support areas at the macro-level are immigration services and public health insurance supports. Regarding immigration services support, which referred to the government sponsored and organized events, such as seminars on how international students can stay in Canada in the course of their study as legal temporary residents and later transition to permanent residents, the majority of the students indicated that they were aware of the support, while about a quarter of the students surveyed indicated that they were not aware. Furthermore, about half of the students surveyed indicated that they used the support, less than half of the students surveyed indicated that they did not, while a tiny few students did not provide any response. A greater number of the students however, indicated that they would use the immigration support in the future, a few number of students indicated that they would not, while a very tiny few students did not provide any response to that aspect of the survey.

Regarding public health insurance, which refers to the provision of health insurance by the provincial government so that international students do not have to incur any additional expense of having to pay for their health insurance from their pockets, the majority of the students indicated that they were aware of the support, about a quarter of the students were not aware, while a very tiny few students did not provide any response. Also, less than half of the students indicated that they use the support, more than half of the students indicated that they did not, while a very tiny few number of the students surveyed did not provide any response to that portion of the survey. Finally, a greater number of the students who participated in the survey indicated that they would use the support in the future, few students indicated that they would not, while a tiny few students did not respond to that portion of the survey.

Table 25.

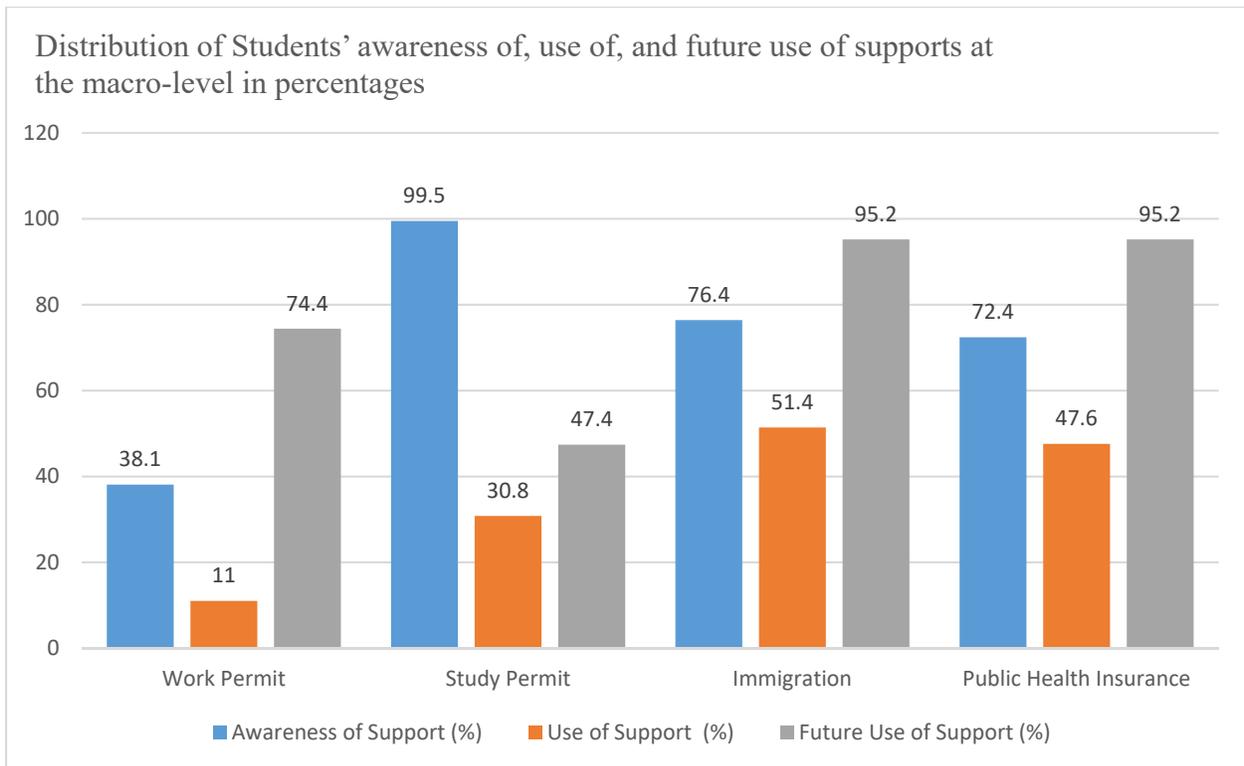
Distribution of Students' awareness of, use of, and future use of supports at the macro-level in numbers and percentages

Macro-Level Support Area	Awareness of Support (n)	Use of Support (n)	Future Use of Support (n)	Awareness of Support (%)	Use of Support (%)	Future Use of Support (%)
Work Permit						
Yes	152	44	297	38.1	11.0	74.4
No	222	321	76	55.6	80.5	19.0
Missing	25	34	26	6.3	8.5	6.5
Total	399	399	399	100.0	100.0	100.0
Study Permit						
Yes	397	123	189	99.5	30.8	47.4
No	2	274	192	.5	68.7	48.1
Missing	0	2	18	0	.5	4.5
Total	399	399	399	100.0	100.0	100.0
Immigration						
Yes	305	205	380	76.4	51.4	95.2
No	94	189	17	23.6	47.4	4.3
Missing	0	5	2	0	1.3	.5
Total	399	399	399	100.0	100.0	100.0

Public Health Insurance

Yes	289	190	380	72.4	47.6	95.2
No	108	204	15	27.1	15.1	3.8
Missing	2	5	4	.5	1.3	1.0
Total	399	399	399	100.0	100.0	100.0

Figure 3.



Note: Percentage distribution of international students showing their awareness, use of, and future use of support areas at the macro-level.

Thus, the results of this analysis provided the answer to research question one, which was that the international students in the sample did not use all the support areas at the micro-, meso-, and macro-levels. This could be due to acculturation issues or the length of stay of the students in Canada since the majority of these students had spent less than two years in the country at the time they were surveyed (Bai, 2016; Bhoohibhoya et al, 2017). However, many students indicated that they were aware of the areas and planned to use in the future.

Research Hypothesis 1

International students may not use or take advantage of all the support areas at the micro-level, meso-level, and the macro-level.

Data in Tables 23, 24, and 25 provided information on the number (n) and percentage (%) of international students who were aware of the supports provided at the three levels (micro, meso, and macro) of support, used the supports provided at the three levels, and planned to use the supports provided at the three levels in future. It was evident that international students did not use all the support areas at the micro-level, meso-level, and macro-level. The results of this study therefore confirmed hypothesis 1 above.

Research Question Two

This research question was as follows: What is the relationship between the support areas of international students at the micro, meso, and macro levels and their academic success as measured by their self-reported GPA and perceived success?

To answer research question 2, I ran the correlation analysis to first determine the relationship between the support areas of international students at the micro-, meso-, and macro-levels. Thereafter, I ran another correlation analysis to determine the relationship between these support areas (micro-, meso-, and macro-levels) and international students' academic success as measured by their self-reported GPA and perceived success. There were significant correlations between the support areas at the micro-level, meso-level, and macro-level (See Table 26). Specifically between the support areas at the meso-level and the macro-level. Also, there were significant correlations between the support areas at the micro-level and the macro-level. Finally, Table 26 showed that there were significant correlations between the support areas at the micro-level and the meso-level.

Table 26.

Correlations Between Support Areas at the Micro-, Meso-, and Macro-Levels

Level	Micro-level	Meso-level	Macro-level
Micro-level	1	.568**	.414**
Meso-level	.568**	1	.454**
Macro-level	.414**	.454**	1

** Correlation is significant at the 0.01 level (2-tailed)

**p<.001

There were significant correlations between the support areas at the micro-, meso-, and macro-levels and the outcome variables, which were self-reported GPA and perceived success (See Table 27). Specifically, all levels correlated with the perceived success, while only the meso-level support areas correlated with the self-reported GPA.

Table 27.

Correlations Between Support Areas at the Micro-, Meso-, and Macro-Levels and Self-Reported GPA and Perceived Success

	Micro-level	Meso-level	Macro-level	Self-Reported GPA	Perceived Success
Micro-level	1	.568**	.414**	-.085	.388**
Meso-level	.568**	1	.454**	-.203**	.235**
Macro-level	.414**	.454**	1	-.030	.308**
Self-Reported GPA	-.085	-.203**	-.030	1	.094
Perceived Success	.388**	.235**	.308**	.094	1

** Correlation is significant at the 0.01 level (2-tailed).

In answering research question two therefore, correlations that were run via SPSS provided in Tables 26 and 27 respectively revealed that some significant relationships between the support areas at the micro-level (individual), meso-level (institutional), and the macro-level (government/societal) and self-reported GPA and perceived success existed.

Research Hypothesis 2

There were some significant correlations between the support areas at the micro-level, meso-level, and the macro-level and international students' self-reported GPA and perceived success. The findings of this study partly confirmed research hypothesis 2 that there were significant correlations between the support areas at the micro-level, meso-level, and macro-level and international students' self-reported GPA and perceived success.

Research Question Three

Which of these support areas is most strongly related to international students' academic success as measured by their self-reported GPA and perceived success? To answer research question three, I analyzed the data via SPSS by running linear regression statistics to determine the most strongly related support areas to international students' self-reported GPA and perceived success.

In relation to self-reported GPA, the support areas at the meso-level which were statistically significant at ($p=.000$) were the most strongly related to international students' self-reported GPA (See Table 28). The other support areas at the micro-level and macro-level did not show any statistical significance regarding these students' self-reported GPA.

Table 28.

Linear Regression Using Self-Reported GPA as Dependent Variable and Micro, Meso, & Macro Levels as Independent Variables

Level	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Micro	.006	.010	.042	.608	.544
Meso	-.034	.009	-.254	-3.622	.000
Macro	.007	.008	.054	.854	.394

Dependent Variable: Self-reported GPA

Table 29 revealed that *R* showed a weak positive relationship between the support areas at the meso-level and self-reported GPA although the meso-level was statistically significant in determining international students' self-reported GPA. The adjusted *R* square confirmed that the variation in self-reported GPA was explained by the variation at the meso-level.

Table 29.

Model Summary Showing Determination of R and Adjusted R Square

Level	R	R Square	Adjusted R Square	Std. Error of the Estimate
Meso	.203 ^a	.041	.039	1.32469

a. Predictors: (Constant), Tot_Meso

The support areas at both the micro-, and macro-levels were significant at ($p=.000$) were the most strongly related levels of supports to international students in terms of perceived success (See Table 30). The other support areas at the meso-level did not show any statistical significance regarding perceived success.

Table 30.

Linear Regression Using Perceived Success as Dependent Variable and Micro, Meso, & Macro Levels as Independent Variables

Level	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
Micro	.094	.020	.302	4.732	.000
Meso	-.008	.019	-.025	-.392	.695
Macro	.059	.016	.213	3.623	.000

Dependent Variable: Perceived Success

In Table 31, *R* showed a moderate positive relationship between the support areas at the micro-level and perceived success although the micro-level was the most important support area to determine international students' perceived success. The adjusted *R* square confirmed that the variation in perceived success was explained by the variation at the micro-level.

Table 31.

Model Summary Showing Determination of R and Adjusted R Square

Level	R	R Square	Adjusted R Square	Std. Error of the Estimate
Micro	.421 ^a	.177	.172	2.84503

a. Predictors: (Constant), Tot_Macro, Tot_Micro

From the data that were presented in Tables 28 and 30, the results of the linear regression analysis showed that the three support areas at the meso-level, and micro-level along with macro-level were statistically significant to international students' self-reported GPA and perceived success respectively. While the findings in Table 28 revealed that the support areas at the meso-level were statistically significant and most strongly related to international students' self-reported GPA, Table 30 revealed that the support areas at the micro-level and the macro-level were statistically significant and most strongly related to international students' perceived success.

Research Hypothesis 3

The third research hypothesis states that support areas at the meso-level (institutional) will be more positively correlated to the academic success of international students, measured by their self-reported GPA and perceived success compared to the support areas at the other levels (micro- and macro-). Data revealed that all the three support areas i.e. meso-level, micro-level, and macro-level were the most strongly related in terms of significance to international students' self-reported GPA and perceived academic success respectively.

Research hypothesis 3 was not confirmed by the findings of this study. While the support areas at the meso-level were the most strongly related to international students' self-reported GPA, the support areas at the micro-level and the macro-level were the most strongly related to determine international students' perceived success. However, the support areas at the meso-

level (institutional) were not more positively correlated to international students' self-reported GPA. This might be because strong students had a lesser need for supports since not all the students utilized the supports at the meso-level, while the supports the weak students had were not commensurate with their self-reported GPA.

Summary

This chapter presented the results of different statistical analysis to determine if international students use or utilize all the support areas at the micro-level (individual), meso-level (institutional), and the macro level (government/societal), the relationship between the support areas of international students at these three levels and their self-reported GPA and perceived success, and which of the support areas was the most strongly related to international students' self-reported GPA and perceived success. In the next chapter, a summary of the findings, conclusions and recommendations for further research will be presented

CHAPTER V

SUMMARY, DISCUSSION, RECOMMENDATIONS, AND CONCLUSION

The preceding chapters outlined the purpose of this study, the review of the literature, the methodology used within the study, and the exploration of data related to each question. This final chapter provides a summary of the research, a discussion of the findings, recommendation for future studies, and conclusion.

Summary of the Findings

The purpose of this study was to examine the impact of the various support areas and/or programs as well as policies on the academic success of international students in a community college. The academic success was measured in terms of two dependent variables i.e. self-reported GPA and perceived success. Data were collected via a hard copy Qualtrics survey from 399 international students at various levels of academic study in different academic programs at the certificate, diploma, and post graduate diploma levels at a large community college in Western Canada. The study was conducted to determine the following:

- 1) International students' utilization of support areas at the micro-level, meso-level, and the macro-level;
- 2) The relationship between the support areas of international students at the micro-level, meso-level, and macro-level and their self-reported GPA and perceived success;, and,
- 3) The most important support areas in terms of international students' self-reported GPA and perceived success.

The key findings from this study revealed the following:

- 1) International students do not utilize all the support areas at the micro-level, meso-level, and macro-level;
- 2) There was a significant and positive correlation between the support areas of international students at the micro-level, meso-level, and the macro-level and self-reported GPA and perceived success; and,
- 3) The support areas at the meso-level were the most strongly related to international students' self-reported GPA while the support areas at the micro-level and the macro-level were the most strongly related to international students' perceived success.

Interpretation of Findings

This study was guided by three research questions to determine if international students use all the support areas at the micro-level, meso-level, and macro-level, the relationship between the support areas of international students at the micro-level, meso-level, and macro-level, and self-reported GPA and perceived success, and the most strongly related support areas to international students' self-reported GPA and perceived academic success.

Research Question 1

This research question was: Do international students use all the support areas at the micro-, meso-, and macro-levels?

This study showed that international students did not use all the support areas at the micro-, meso-, and macro-levels. Descriptive statistical tests were run via SPSS to determine this research question. In all the support areas that were examined at each level of support i.e. micro-, meso-, and macro-levels, international students did not use all the support areas, although a greater percentage of the students indicated that they intend to use the support areas that they do

not use at present in the future. The findings from this study revealed that international students did not use all the support areas even when they were aware of such support areas. For example, in mentoring support at the micro-level, 307 (76.9%) of the international students surveyed were aware of that support but only 168 (42.1%) students use the support while 298 (74.7%) students indicated that they plan to use the support in the future.

Another example is the mental health/counselling support area at the meso-level where 280 (70.2%) of the international students surveyed indicated that they were aware of the support but only 87 (21.8%) of these students use it while 257 (64.4%) students indicated that they will use the support in the future. Also, at the macro-level, in terms of work permit support, 152 (38.1%) of the students surveyed indicated that they were aware of the support but only 44 (11.0%) students use the support while 297 (74.4%) students indicated that they will use the support in the future. The low number of the students who use the work permit support could be attributed to the fact that most students do not have a work placement component in their academic program and therefore do not need a work permit. This could be the reason why 297 (74.4%) students indicated that they plan to use the support in the future, probably when they graduate. This could also be due to the fact that these students may be considering looking to apply for a three year work permit visa provided by the Canadian government to international students who are graduates of a minimum of two year academic program before they transition to permanent residents upon the successful completion of their academic program if they are willing to live and work in Canada (CBIE, 2016).

Literature reveals that although certain activities, for example, extra-curricular and co-curricular activities - activities performed by students outside the normal curriculum of their community college education e.g. networking, academic advising, and counselling - at the meso-

level positively contributes to the academic success of international students (Glass & Westmount, 2014) and help some international students to better adjust to their foreign environment (Lee & Ciftes, 2014; Roesch, Wee, & Vaugh, 2006), which support their academic success. However, there are certain instances where international students were aware of these supports but still shy away from utilizing these supports. For example, due to differences in cultural beliefs about mental health, associated stigmas, and unfamiliarity with these resources, international students do not consider support areas that have to do with mental health programs, wellness and counselling centers, and networking activities or events in spite of the promotion of these support areas in many community colleges (Aubrey, 1991; Brinson & Kottler, 1995; Bradley, Parr, Lan, Bingi, & Gould, 1995).

The indifference of international students to mental health programs and counselling centers has led to the under-utilization of mental health services and social support services in their campuses. Bhochhibhoya et al (2017) stated that due to this indifference, it is possible that international students might be facing severe mental health problems without being aware. Indeed, the results of this study confirmed that international students do not use all the support areas at the micro-, meso-, and macro-levels.

The findings of this study are therefore in tandem with research hypothesis 1 that international students may not use all the support areas at the micro-, meso-, and macro-levels (Aubrey, 1991; Xu, 2015; Brinson & Kottler, 1995; Bhochhibhoya et al, 2017; Natali, 2015; Hegarty, 2014).

Research Question 2

The second research question was intended to examine the relationships and, therefore, was as follows: What is the relationship between the support areas of international students at the

micro, meso, and macro levels and their academic success as measured by their self-reported GPA, and perceived success?

There were significant correlations between the support areas at the micro-, meso-, and macro-levels and self-reported GPA and perceived success. For example, there were significant correlations between all three levels of support areas and perceived success. There was, however, only one significant correlation – albeit in a negative direction - between the meso-level and the self-reported GPA.

Literature reveals that there is a significant correlation between the support areas of international students at the micro-, meso-, and macro-levels and their academic success. For example, at the micro-level, faculty, family, peer, and mentoring supports play significant roles - thus showing a significant correlation - to international students' academic success according to the researchers (Andrade, 2006; Grayson, 2008; Perry, 2016; Mamiseishvili, 2012; Woodrow, 2006; Tolman, 2017; Xu, 2015).

At the meso-level, Bai (2016) identified perceived support from the college as a significant negative predictor of acculturative stress i.e. supports from institution are very important to international students in their acculturative process. Literature also reveals that institutional supports such as acculturation, networking, mental health/counselling, academic advising, and financial aid that international students get have a positive correlation to their academic success (Kuo & Roysirca, 2004; Wei, Happner, Mallen, Ku, Liao, & Wu, 2007; McFarlane, 2015; Sullivan & Kashubeck-West, 2015; Thomson & Esses, 2016; Constantine, Okazaki, & Utsey, 2004; Zhang, 2015).

Finally, at the macro-level, literature reveals that immigration services, health insurance, study permit, work permit, and settlement/integration supports help international students to have

a sense of enhanced confidence as legal students, which increases their ability to be more expressive in class and to be able to attend classes punctually. These supports significantly correlate to their academic success as well (Hegarty, 2014; Trilokekar & Kizilbash, 2013; Karuppan & Barari 2011; Kusek, 2015; Natali, 2005; Paltridge, Maysons, & Schapper, 2012).

The findings from this study are in tandem with the research hypothesis 2 that there are significant correlations between the support areas at the micro, meso, and macro levels and international students' self-reported GPA and perceived success according to the researchers (Tolman, 2017; Mamiseishvili, 2012; Andrade, 2006; Zhang, 2015; Kusek, 2015; Natali, 2015; Liu, 2009; Bai, 2016; Andrade, 2005).

Research Question 3

The final research question was aimed at understanding which of these support areas was most strongly related to international students' academic success as measured by their self-reported GPA and perceived success.

Andrade (2006) argued that the academic success of international students depends on the supports available to them both in and outside the classroom. The supports that are available to these students outside the classroom i.e. the meso-level (institutional) where they spend more hours than in the classroom may be the most important to their academic success. Several factors that have been identified as important to the academic success of international students take place at the meso-level. These support areas include mental health/counselling, academic advisor, and networking supports according to the researchers (McFarlane, 2015; Mori, 2000; Bai, 2016; Feng & Feng, 2013; Andrade, 2005; Gomez, Urzua, & Glass, 2014; Andrade, 2005; Darner, 2007; McFaul, 2016; Liu, 2009; Bhochhibhoya et al, 2017; Hendrickson, Rosen, &

Aune, 2011; Ristner et al, 2000; Liu, 2009; Hellman et al, 2016; Jandt, 2007; Mori, 2000; Darner, 2007; McFaul, 2016).

The findings from this study are partially in tandem with research hypothesis 3 that states that the support areas at the meso-level (institutional) are more positively correlated to international students' self-reported GPA and perceived success. While the results of this study revealed that the support areas at the meso-level were more significant to determine international students' self-reported GPA, the results did not show that the supports at the meso-level were positively correlated to international students' self-reported GPA. Several factors may be responsible for this. From the results of this study, for an increase of one unit in IV, there was potential decrease in DV and vice versa i.e. more supports provided to students at the meso-level did not translate to an increase in these students' self-reported GPA and vice versa. As stated earlier, it is possible that strong students do not use the supports at the meso-level (institutional) but weak students do but the supports did not translate into an increase in their self-reported GPA regardless of the level of supports that they got. It is also possible that due to acculturation issues, more supports provided to these students did not translate to an increase in their self-reported GPA. The support areas at the micro-level (individual) and macro-level (government/societal) were however, more positively correlated to international students' perceived success.

Figure 4 showed the relationships between support areas at the micro-, meso-, and macro-levels and the two academic success outcomes from this study i.e. self-reported GPA and perceived success. Bronfenbrenner (1979) argued that different levels i.e. the micro-, meso-, exo-, and macro-levels all combine together to influence an individual's level of human development. In this study, each of these levels i.e. micro-, meso-, and macro-levels were treated as

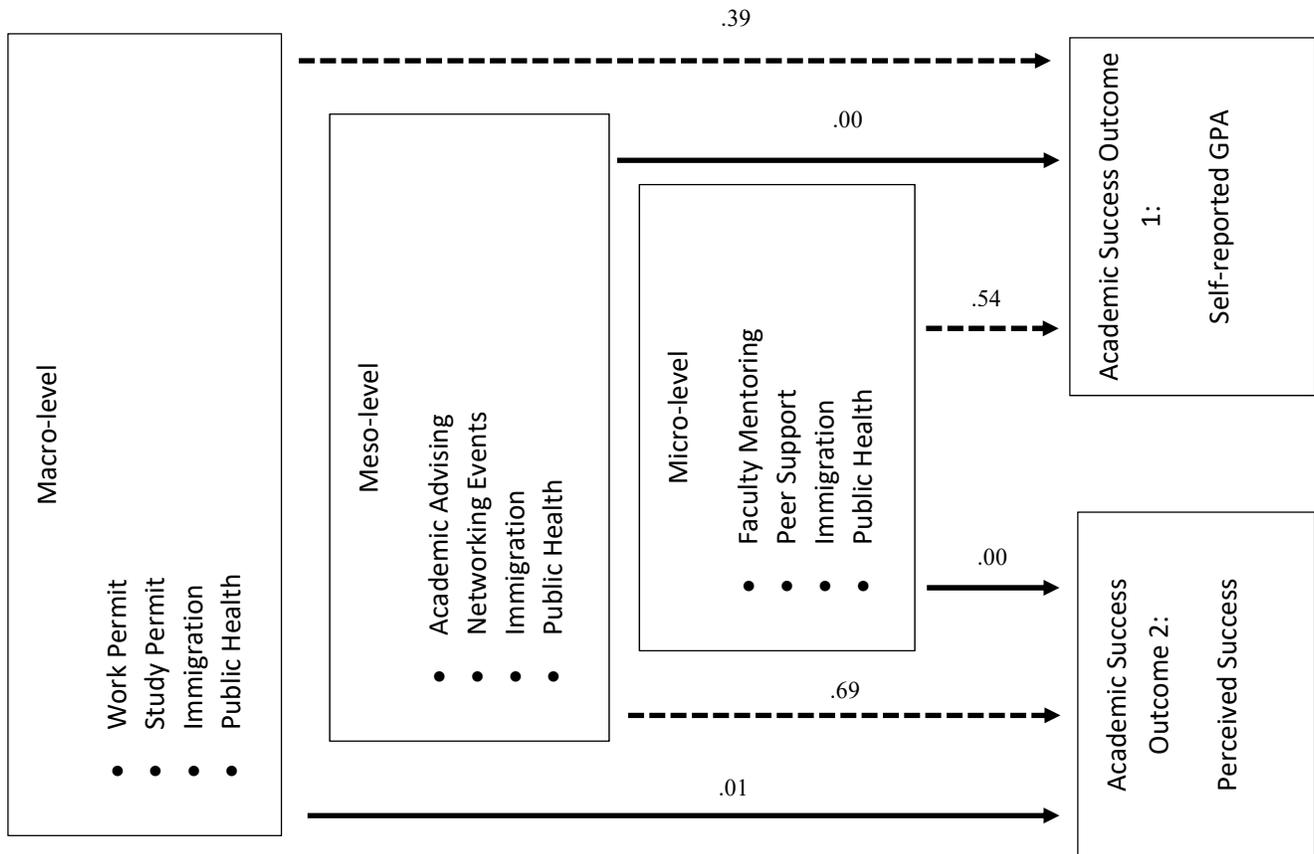
independent and separate levels (variables) in order to measure their effect on the two outcomes of academic success i.e. self-reported GPA and perceived success. The exo-level is subsumed in the micro, meso, and macro levels.

In Figure 4, there was an insignificant relationship between the macro-level and self-reported GPA. There was also an insignificant relationship between the micro-level and self-reported GPA but there was a significant relationship between the meso-level and self-reported GPA. Although there was a significant relationship between the meso-level and self-reported GPA, the relationship had a negative slope i.e. there was an inverse relationship between the support areas at the meso-level and self-reported GPA in spite of their level of significance. The reason for the inverse relationship between the support areas at the meso-level and self-reported GPA could be due to the fact that international students from Asia socialized more amongst themselves, thereby providing social support to each other, and were less engaged with the campus-environment than other international students (Andrade, 2006; Bai, 2016). Another reason could be that in spite of the enormous supports that several higher education institutions have put in place at the meso-level (institutional) to provide social supports to international students, language and cultural barriers still prevent these students from adequately utilizing these supports (Mori, 2000; Schindler, 1999; Ristner, Modai, & Ponizovski, 2000; İhtiyaroğlu & Ateş, 2018). Indeed, (Lin & Scherz, 2014) argued that Asian students seemed to struggle the most with language issues as many had difficulty understanding lectures from their instructors.

Furthermore, there was an insignificant relationship between the support areas at the meso-level and perceived success although there were significant relationships between the support areas at the micro-level and perceived success, and the support areas at the macro-level and perceived success respectively. These significant relationships both had a positive slope.

Figure 4.

Model of Environmental Factors Predicting Self-GPA and Perceived Success



Note: Solid lines represent significance at the .00 and .01 level and dashed lines represent non-significant relationships.

Review of Limitations of the Study

This study collected responses to a hard copy Qualtrics survey that 399 international students completed at a large community college in Western Canada. The enrolment figures and the status of these students differed from one semester to another based on academic program offering, visa issuance, and time of arrival in Canada of these international students. Therefore, identifying the enrolment figures and status of the international students surveyed at the time they completed the survey may not fully represent the individual enrolment experience of a student (Crostra, 2013).

Also, this study collected information provided by international students from various academic programs in different departments offering different academic credentials at the certificate, diploma, and post graduate diploma levels in the community college where this study was conducted. However, different academic programs admit international students at different times of the year because some academic programs admit international students year round i.e. August, January, and May, while some academic programs admit students only in August.

Furthermore, some departments within the college offer academic programs at the certificate, diploma, and post graduate diploma levels while some departments offer academic programs only at the diploma, and post graduate diploma levels, and some departments offer academic programs only at the certificate and diploma levels, and some departments offer academic programs only at the certificate level. These academic programs have different times (semesters) required to complete them. Due to the differences in admission dates across different departments and academic programs, some international students have actually spent a longer time in the community college than some others at the time the hard copy Qualtrics survey was administered. As a result, some international students may have taken advantage of the support areas than some others which may have had an impact on their academic success in terms of their self-reported GPA and perceived success.

Finally, this study assessed self-reported data that were provided by international students who have spent a minimum of one semester i.e. students who participated in this study were in their second semester and above in the community college at the time the survey was administered.

Implications and Recommendations

The results of this study yielded several recommendations for theory and research and for practice.

Implications and Recommendations for Theory and Research

This study investigated the impact of support areas on the academic success of international students in terms of their self-reported GPA and perceived success at the micro-, meso-, and macro-levels using the Bronfenbrenner theory of human development. The micro-level (individual) examined the impact of supports from faculty, family, mentors, and peers on these students' academic success. The meso-level (institutional) examined the impact of supports from mental health/counselling, academic advisors, and networking on international students' academic success, while the macro-level (government/societal) examined the impact of supports for study permit, work permit, immigration, and public health insurance on international students' academic success. As stated earlier, academic success was measured in terms of two outcome variables: (1) self-reported GPA and (2) perceived success.

The data set used for the study was collected from international students studying different academic programs at different levels at the certificate, diploma, and post graduate diploma at a large community college in Western Canada. A replication of this study should be conducted with a survey designed to gather more detailed information about international students in order to gain a better understanding of other variables that were not accounted for within the results of this study. For example, various demographic variables of this study such as the effect of types of dependents (spousal and children), and the types of work (internships or work placement) and location of work (on-campus or off-campus) were not taken into account in the statistical analysis, but future research may take them into consideration and run multiple

regression with interaction effects. Furthermore, academic success could be measured in terms of actual (official GPA) and satisfaction (in terms of both academic and non-academic experiences) of these students. The addition of these demographic elements should better connect the findings of these studies to prior research.

Replication of this study using the Bronfenbrenner's theory of human development should be conducted on data from a collection of community colleges including community colleges in Ontario, British Columbia, and Quebec that have the highest number of international students accounting for 43.6 percent, 27.3 percent, and 14.2 percent respectively according to the (CBIE, 2016). Replication of this study using the Bronfenbrenner's theory of human development should be conducted from data from a single large community college or a collection of community colleges from the provinces with the highest number of international students identified above earlier with the inclusion of a qualitative analysis from the community college or colleges. This is because it is only through a mixed approach/method (qualitative and quantitative) could a researcher gain a clearer picture of the academic success of international students measured either in terms of their self-reported GPA or actual GPA, perceived success, and/or student satisfaction.

The results from research question 3 i.e. which of the support areas is the most strongly related to international students was a partial confirmation of the research hypothesis 3. This provides an opportunity for further research to determine why in spite of the fact that the support areas at the meso-level were more significant to international students' self-reported GPA, an increase in students' ranking or agreement with the importance of these support areas to them did not show an increase in self-reported GPA and vice versa. It will be interesting to determine in another study that considers actual GPA instead of self-reported GPA if a similar or significantly

different result will be obtained i.e. if an increase in support areas at the meso-level shows an increase in students' actual GPA or vice-versa. It is also possible to determine the outcome variables in terms of international students' actual (official) GPA and student satisfaction. Indeed, the challenge is there for another to explore and dig deeper into these connections.

Finally the findings from this study confirmed the theoretical assumptions of Bronfenbrenner's theory of human development which in this study was conceptualized in two ways: 1) international students' individual perception of their success, a psychological variable, and 2) international students' academic success through a self-reported GPA are influenced by these students' environment at the micro-level, meso-level, exo-level, and macro-level. Although Bronfenbrenner argued that an ecosystem of the micro-, meso-, and macro-levels leads to human development, the results of this study treated each of these levels as separate or independent levels to determine the most strongly related level to international students' self-reported GPA and perceived success. This goes a long way to confirm Bronfenbrenner's theory of human development that these levels each play a vital role and are all important to an individual's level of development. As stated earlier in chapter one, the exo-level was not considered in this study because it has been subsumed in the other levels.

Implications and Recommendations for Practice

Literature reveals that the impact of support areas on the academic performance of international students show a positive and significant correlation (Bai, 2016; Andrade, 2006; Bhoohibhoya et al, 2017). This study found a similar connection for international students in their academic success in terms of their self-reported GPA and perceived success. Community college leaders and administrators can use the results of this study to both affirm and re-affirm

their strategic and institutional programming initiatives and efforts for international students on their campuses.

Administrators and leaders at the community college level can also invest more at the micro-level (individual) support areas such as faculty, mentoring, and peer supports at their various campuses in order to enhance international students' perceived success on one hand. On the other hand, they can also increase their macro-level (government/societal) support areas such as study and work permits, and increase their participation in federal and provincial/territorial governments' initiatives in immigration services by ensuring that these programs and initiatives of the Canadian government become a regular feature and occurrence on their campuses in order to enhance international students' confidence in their success.

Highlighting the impact of support areas at the micro-level (individual), meso-level (institutional), and macro-level (government/societal) on international students' self-reported GPA and perceived success can thus help community college leaders and administrators to ensure increased governments' funding of their strategic initiatives and program efforts as a matter of priority. This also helps the Canadian government to get an increased and greater level of buy-in and support from community college administrators regarding their initiatives and strategic plan of making Canada an attractive and competitive study destination by attracting more international students to Canada.

The outcome of the use of the findings from this study will therefore:

- 1) Help community colleges in no small measure to increase their revenue earnings and global reputation and recognition because they will be able to attract more international students to their campuses from all over the world who will be able to attain academic

success based on the necessary supports provided to them at the micro-, meso-, macro-levels.

2) Help the Canadian government in addressing the aging population and workforce challenge that Canada presently faces because these students upon the successful completion of their academic programs will be able to form a pool of talent who are in an appropriate position to contribute to the continuous competitiveness and growth of the Canadian economy because Canadian businesses, and international businesses operating in Canada will be able to hire these students to work for them thereby addressing the problems caused by the shortage of skilled workers.

Therefore, it is of utmost importance for community college leaders and administrators to move forward in providing the needed supports to these students in order to help them to achieve academic success. Finally, some of the findings from this study can also be applied to local students who share some of the challenges that international students are confronted with, including those who had their K-12 in rural areas and are coming to towns and cities for the first time for their higher education, and first generation community college students who share some or some similarities with international students in the challenges they face.

Conclusion

This study explored the impact of support areas at the micro-level, meso-level, and macro-level on international students in community colleges in terms of their self-reported GPA and perceived success. The research was conducted on the site of a large community college in Western Canada. The support areas at the meso-level were more statistically significant to international students' self-reported GPA while the support areas at the micro-level and the macro-level were more statistically significant to international students' perceived success.

The findings from this study showed that all the support areas at the micro-level, meso-level, and macro-level were most strongly related to international students' self-reported GPA and perceived success. The support areas at the meso-level were most strongly related to international students' self-reported GPA while the support areas at the micro-level and macro-level were most strongly related to international students' perceived success. Government rhetoric and an increased investments in these important support areas are therefore essential in both making Canada a competitive destination of choice for international students and also ensuring the success of these students when they study in community colleges in Canada.

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Appendix A

UNIVERSITY OF NORTH DAKOTA

Institutional Review Board

Informed Consent Statement

Title of Project: Impact of Support Areas on the Academic Success of International Students in Community Colleges

Principal Investigator: Taiwo O. Soetan, 1204-632-3023, taiwo.soetan@und.edu

Advisor: Dr. Zarrina Azizova, 1701-777-3737, zarrina.azizova@und.edu

Purpose of the Study: The purpose of this research study is to examine the impact of the various support areas on the academic success of international students in community colleges.

Procedures to be followed: Participants will be asked to answer 40 questions on a Qualtrics survey.

Risks: There are no risks in participating in this research beyond those experienced in everyday life.

Benefits: You may not benefit directly from participating in this research, but we hope findings will help inform campus administrators and government officials about issues impacting international students.

Duration: It will take about 15 minutes to complete the questions.

Statement of Confidentiality: If we write a report or article about this study, we will describe the study results in a summarized manner so that you as a participant cannot be identified. In order to further protect your confidentiality, we are not collecting identifying information on this survey. Your identity will not be linked in any way to your responses.

All survey responses that we receive will be treated confidentially and electronic data obtained via Qualtrics will be stored in a password-protected excel file of the researcher's laptop. However, given that the surveys can be completed from any computer (e.g., personal, work, school), we are unable to guarantee the security of the computer on which you choose to enter your responses. As a participant in our study, we want you to be aware that certain "key logging" software programs exist that can be used to track or capture data that you enter and/or websites that you visit.

Right to Ask Questions: The researcher conducting this study is Taiwo Soetan. You may ask any questions you have now. If you later have questions, concerns, or complaints about the research please contact Taiwo Soetan at 1204-632-3023 during the day or by email at

taiwo.soetan@und.edu/tsoetan@rrc.ca or Dr. Zarrina Azizova at 1701-777-3737 during the day or by email at zarrina.azizova@und.edu or Mr. Mike Krywy at 1204-632-2330 during the day or by email at mdkrywy@rrc.ca.

If you have questions regarding your rights as a research subject, you may contact The University of North Dakota Institutional Review Board at (701) 777-4279 or UND.irb@UND.edu. You may contact the UND IRB with problems, complaints, or concerns about the research. Please contact the UND IRB if you cannot reach research staff, or you wish to talk with someone who is an informed individual who is independent of the research team.

General information about being a research subject can be found on the Institutional Review Board website “Information for Research Participants” <http://und.edu/research/resources/human-subjects/research-participants.cfm>

Compensation: You will not receive compensation for your participation.

Voluntary Participation: You do not have to participate in this research. You can stop your participation at any time. You may refuse to participate or choose to discontinue participation at any time without losing any benefits to which you are otherwise entitled. You do not have to answer any questions you do not want to answer. You must be 18 years of age older to participate in this research study.

Completion and return of the survey implies that you have read the information in this form and consent to participate in the research. Please keep this form for your records or future

Q1

Student Variables:

Indicate your current status as a student:

- Post Graduate Diploma (PGD)
- Degree
- Diploma
- Certificate
- Other [Please specify]

Q2

What academic program are you currently enrolled in? [In text box, enter program name]

Q3

When was your first semester of study in this College? [For example, Fall 2017. Please specify]

Q4

How many semesters have you studied in this College? [Please include present semester]

Q5

What estimate of your current program have you completed? [In text box, please enter number]

Q6

Will you complete a PGD, Degree, Diploma, or certificate program in this College?

- Yes
- No
- May be

Q7

What is/was your overall cumulative GPA in your first semester?

- 0.0-0.4
- 0.5-0.9
- 1-1.4
- 1.5-1.9
- 2-2.4
- 2.5-2.9
- 3-3.4
- 3.5-3.9
- 4-4.5

Q8

Which typically describes how you take courses?

- On-campus
- Online
- Combination of on-campus and online

Q9

Are you currently a member of a program cohort (i.e., group of students starting program concurrently enrolled in similar courses at similar times, expected graduation together):

- Yes

- No

Q10

Perceived Success in Academic Program

Please answer the questions in a way that would be representative of your overall experience while completing your academic program in the College especially in your first semester

Since you began your academic program, how successful do you feel

	Strongly disagree	Disagree	Somewhat agree	Agree	Strongly agree
...you are pursuing an academic program in the college?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...about the grades you got on tests and assignments in your academic program?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...in achieving the learning goals that you set for yourself?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...when it comes to knowing that you made an honest effort to make progress during the year?	<input type="checkbox"/>				
...in doing all the work, meeting deadlines, keeping up with the reading, studying, etc.?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...in gaining new knowledge and understanding from your courses?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...in using the technology required in your academic program?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Q11

Are you aware of the supports provided by...

	Yes	No
Faculty	<input type="checkbox"/>	<input type="checkbox"/>
Mentoring	<input type="checkbox"/>	<input type="checkbox"/>

	Yes	No
Family	<input type="checkbox"/>	<input type="checkbox"/>
Peers	<input type="checkbox"/>	<input type="checkbox"/>
Mental Health/Counselling	<input type="checkbox"/>	<input type="checkbox"/>
Academic Advisor	<input type="checkbox"/>	<input type="checkbox"/>

Q12

Did you use of the supports provided by...

	Yes	No
Faculty	<input type="checkbox"/>	<input type="checkbox"/>
Mentoring	<input type="checkbox"/>	<input type="checkbox"/>
Family	<input type="checkbox"/>	<input type="checkbox"/>
Peers	<input type="checkbox"/>	<input type="checkbox"/>
Mental Health/Counselling	<input type="checkbox"/>	<input type="checkbox"/>
Academic Advisor	<input type="checkbox"/>	<input type="checkbox"/>

Q13

In the future, do you plan to use the support provided by...

	Yes	No
Faculty	<input type="checkbox"/>	<input type="checkbox"/>
Mentoring	<input type="checkbox"/>	<input type="checkbox"/>
Family	<input type="checkbox"/>	<input type="checkbox"/>
Peers	<input type="checkbox"/>	<input type="checkbox"/>
Mental Health/Counselling	<input type="checkbox"/>	<input type="checkbox"/>
Academic Advisor	<input type="checkbox"/>	<input type="checkbox"/>

Q14

Networking: This refers to events organized by the College such as welcome party for new international students, orientation, excursions, alumni events and other events organized through the Student Association such as Red Talk, Turban Day

	Yes	No
Are you aware of the networking events organized in the College?	<input type="checkbox"/>	<input type="checkbox"/>
Did you attend the networking events in the College	<input type="checkbox"/>	<input type="checkbox"/>
In the future, do you plan to attend the	<input type="checkbox"/>	<input type="checkbox"/>

networking events in the College?

Yes **No**

Q15
Do you presently have a...

	Yes	No
Work permit <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Study permit <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Q16
Have you renewed your...

	Yes	No
Work permit <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Study permit <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Q17
In the future, do you plan to renew your...

	Yes	No
Work permit <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Study permit <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Q18
Immigration: Immigration services refer to the Government sponsored and organized events such as seminars on how to be a legal resident in Canada as an international student, and how to become a permanent of Canada

Public Health Insurance: This refers to the provision of health insurance by the Government such that students or their family don't have to pay from their pockets for their health insurance

Are you aware of the...

	Yes	No
Immigration services provided by the Government <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Public Health Insurance provided by the Government <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Q19
Did you use the...

	Yes	No
Immigration services provided by the Government <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Yes **No**

Public Health Insurance provided by the Government

Q20

In the future, do you plan to use the...

Yes **No**

Immigration services provided by the Government

Public Health Insurance provided by the Government

Q21

Faculty:

Using the scale below, indicate how much you agree with each of the following statements regarding your experience with faculty

	Strongly disagree	Disagree	Somewhat agree	Agree	Strongly agree
I interact regularly with my instructors to improve my knowledge base	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I feel comfortable asking questions from my instructors in class	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I take advantage of my instructors' office hours regarding my studies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I feel comfortable approaching my instructors for help regarding my assignments	<input type="checkbox"/>				

Q22

Mentoring:

Using the scale below, indicate how much you agree with each of the following statements regarding your experience with your mentor

	Strongly disagree	Disagree	Somewhat agree	Agree	Strongly agree
I meet with my mentors regularly every week	<input type="checkbox"/>				

	Strongly disagree	Disagree	Somewhat agree	Agree	Strongly agree
I find my mentor helpful in my rapid integration into the Canadian culture	<input type="checkbox"/>				
My mentor helped me to quickly navigate my way around the college	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My mentor helped me to easily connect with other students	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Q23

Family:

How would you rank your agreement with the following statements?

	Strongly disagree	Disagree	Somewhat agree	Agree	Strongly agree
I am close with my family	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My family is proud that I'm studying in Canada	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am in school in Canada to support my family in the future	<input type="checkbox"/>				
My family supported my decision to come to school in Canada	<input type="checkbox"/>				

Q24

Peer:

How would you rank your agreement with the following statements?

	Strongly disagree	Disagree	Somewhat agree	Agree	Strongly agree
My peers in my program motivate me to attend classes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My peers are responsible for a large part of my success in my academic program	<input type="checkbox"/>				
I often seek help from my peers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Strongly disagree	Disagree	Somewhat agree	Agree	Strongly agree
I am challenged by my peers to reach my potential	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I believe there is a lot that I can learn from my peers	<input type="checkbox"/>				

Q25

Mental Health/Counselling:

How would you rank your agreement with the following statements?

	Strongly disagree	Disagree	Somewhat agree	Agree	Strongly agree
The mental health/counselling services help to increase my confidence level and integration on campus	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The mental health/counselling staff contributes to a large part of my academic success	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The mental health/counselling staff often encourage me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The mental health/counselling services is the first place that I go to when I have emotional or psychological problems	<input type="checkbox"/>				

Q26

Academic Advisor:

How would you rank your agreement with the following statements?

	Strongly disagree	Disagree	Somewhat agree	Agree	Strongly agree
I regularly seek advice from my academic advisor	<input type="checkbox"/>				

	Strongly disagree	Disagree	Somewhat agree	Agree	Strongly agree
Having an academic advisor made a positive contribution to my student experience	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I respect the opinion of my academic advisor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My academic advisor help me to better understand and appreciate the Canadian academic curriculum and culture	<input type="checkbox"/>				

Q27

Networking:

How would you rank your agreement with the following statements?

	Strongly disagree	Disagree	Somewhat agree	Agree	Strongly agree
I usually participate in networking events such as alumni, orientation, welcome party, and other events on campus	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The networking events are a positive component of my academic study	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have made more connections with students, faculty, and staff from other departments through the networking events that I attended on campus	<input type="checkbox"/>				
I find value in attending networking events on campus	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Q28

Work Permit:

How would you rank your agreement with the following statements?

	Strongly disagree	Disagree	Somewhat agree	Agree	Strongly agree
I found the work permit to be helpful in obtaining Canadian work experience	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The work permit made a positive contribution to my Canadian immigration experience	<input type="checkbox"/>				
I found the work permit helpful in supporting myself financially	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The work permit helped me to get job opportunities as a student	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Q29

Study Permit:

How would you rank your agreement with the following statements?†

	Strongly disagree	Disagree	Somewhat agree	Agree	Strongly agree
I found the study permit to be helpful in obtaining my Canadian academic credential	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The study permit motivated me to better concentrate on my academic study	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The study permit made it possible for me to fulfil my dream of an international education in Canada	<input type="checkbox"/>				
The study permit made the possibility of my immigration to Canada possible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Q30

Immigration:

How would you rank your agreement with the following statements?

	Strongly disagree	Disagree	Somewhat agree	Agree	Strongly agree
I benefitted a lot from the immigration events and seminars that I attended on how to become a Canadian permanent resident	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I feel the information that I got from the immigration events that I attended contributed to my rapid integration in Canada	<input type="checkbox"/>				
The prospect of becoming a permanent resident of Canada enhanced my commitment to my academic study	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The immigration system of Canada for international students motivated me to come to study here	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Q31

Public Health Insurance:

How would you rank your agreement with the following statements?

	Strongly disagree	Disagree	Somewhat agree	Agree	Strongly agree
Having a public health insurance coverage contributed significantly to my academic success	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The public health insurance made my cost of studying here to be cheaper and more affordable	<input type="checkbox"/>				

	Strongly disagree	Disagree	Somewhat agree	Agree	Strongly agree
The public health insurance coverage contributed to my decision to come to study in this province	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My immediate family who are with me during my academic study benefitted greatly from the public health insurance	<input type="checkbox"/>				

Q32

Demographics and Background:

What is your gender?

Q33

What is your age in years?

Q34

Years in College:

- First year
- Second year
- Third year
- Fourth year
- Fifth year or more

Q35

What is your ethnicity?

- White/Caucasian
- African/Caribbean/Black
- Asian
- South American
- Mexican
- Middle East
- Other [Please specify]

Q36

What is your current relationship status?

- Living with partner or spouse
- In relationship, not living with partner or spouse
- Single
- Other [Please specify]

Q37

How many dependent children (18 years or younger) do you currently support?

[Please specify]

Q38

What is your current employment status?

- Unemployed
- Working part time

Q39

Are you currently receiving financial aid?

- Yes
- No

Q40

Participant Response Check:

I have read the questions in the assessments carefully and answered them honestly.

- Not at all true
- Somewhat true
- Mostly true
- All true

Appendix B
CODEBOOK

Scale/measure	Items
Student Variables	9
Perceived Success	7
Faculty	4
Mentoring	4
Family	4
Peer Support	5
Mental Health/Counselling	4
Academic Advisor	4
Networking	4
Work Permit	4
Study Permit	4
Immigration	4
Health Insurance	4
Demographics and Background	8
TOTAL	69

Part A

Student Variables:

Indicate your current status as a student: (1) Post Graduate Diploma (PGD), (2) Diploma, (3) Certificate, (4) Other [Please specify]

What academic program are you currently enrolled in? [In text box, enter program name]
When was your first semester of study in this College? [For example, Fall 2017. Please specify]
How many semesters have you studied in this College? [Please include present semester]
What estimate of your current program have you completed? [In text box, please enter number]
Will you complete a PGD, Diploma, or Certificate program in this College? <input type="checkbox"/> Yes, <input type="checkbox"/> No, <input type="checkbox"/> May be
What is/was your overall cumulative GPA in your first semester? [Please tick] <input type="checkbox"/> 0.0-0.4, <input type="checkbox"/> 0.5-0.9, <input type="checkbox"/> 1-1.4, <input type="checkbox"/> 1.5-1.9, <input type="checkbox"/> 2-2.4, <input type="checkbox"/> 2.5-2.9, <input type="checkbox"/> 3-3.4, <input type="checkbox"/> 3.5-3.9, <input type="checkbox"/> 4-4.5
Which typically describes how you take courses? (1) On-campus, (2) Online, (3) Combination of on-campus and online
Are you currently a member of a program cohort (i.e., group of students starting program concurrently enrolled in similar courses at similar times, expected graduation together): <input type="checkbox"/> Yes, <input type="checkbox"/> No

Perceived Success in Academic Program

Please answer the questions in a way that would be representative of your overall experience while completing your academic program in the College especially in your first semester.

Since you began your academic program, how successful do you feel.

1 = Strongly Disagree, 2, 3, 4, 5 = Strongly Agree

Names	Items
PSAC1	...you are pursuing an academic program in the college?
PSAC2	...about the grades you got on tests and assignments in your academic program?
PSAC3	...in achieving the learning goals you set for yourself?
PSAC4	...when it comes to knowing that you made an honest effort to make progress during the year?
PSAC5	...in doing all the work, meeting deadlines, keeping up with the reading, studying, etc.?
PSAC6	...in gaining new knowledge and understanding from your courses?
PSAC7	...in using the technology required in your academic program?

Part B

Faculty:

Are you aware of the supports provided by faculty? ___ Yes / ___ No

Did you take advantage of the supports provided by faculty? ___ Yes / ___ No

Do you plan to use the supports provided by faculty? ___ Yes / ___ No

Mentoring:

Are you aware of the supports provided by mentors? ___ Yes / ___ No

Did you take advantage of the supports provided by mentors? ___ Yes / ___ No

Do you plan to use the supports provided by mentors? ___ Yes / ___ No

Family:

Are there any supports provided by your family? ___ Yes / ___ No

Did you use the supports provided by your family? ___ Yes / ___ No

Do you plan to use the supports provided by your family? ___ Yes / ___ No

Peer Support:

Are there any supports provided by your peers? ___ Yes / ___ No

Did you use the supports provided by your peers? ___ Yes / ___ No

Do you plan to use the supports provided by your peers? ___ Yes / ___ No

Mental Health/Counselling:

Are you aware of the counselling supports provided by the College? ___Yes / ___No

Did you take advantage of the counselling supports provided by the College? ___Yes / ___No

Do you plan to use the counselling supports provided by the College? ___Yes / ___No

Academic Advisor:

Are you aware of the supports provided by academic advisors? ___Yes / ___No

Did you take advantage of the supports provided by academic advisors? ___Yes / ___No

Do you plan to use the supports provided by academic advisors? ___Yes / ___No

Networking:

This refers to events organized by the College such as welcome party, orientation, excursions, and through the Student Association such as Red Talk, Turban Day, and Alumni events

Are you aware of the networking events organized in the College? ___Yes / ___No

Did you attend the networking events in the College? ___Yes / ___No

Do you plan to attend the networking events in the College? ___Yes / ___No

Work Permit:

Do you presently have a work permit? ___Yes / ___No

Have you renewed your work permit? ___Yes / ___No

Do you plan to renew your work permit? ___Yes / ___No

Study Permit:

Do you presently have a study permit? ___Yes / ___No

Have you renewed your study permit? ___Yes / ___No

Do you plan to renew your study permit? ___Yes / ___No

Immigration:

Immigration Services refer to Government sponsored and organized events such as seminars on how to be a legal resident as a student, how to become a permanent resident and other internship programs.

Are you aware of the Immigration services provided by the Government? ___ Yes / ___ No

Did you use the Immigration services provided by the Government? ___ Yes / ___ No

Do you plan to use the Immigration services provided by the Government? ___ Yes / ___ No

Public Health Insurance:

This refers to the provision of health insurance by the government such that students or their family don't have to pay from their pockets for their health insurance.

Are you aware of the Public Health Insurance provided by the Government? ___ Yes / ___ No

Did you use the Public Health Insurance provided by the Government? ___ Yes / ___ No

Do you plan to use the Public Health Insurance provided by the Government? ___ Yes / ___ No

Part C

Faculty:

Using the scale below, indicate how much you agree with each of the following statements regarding your experience with faculty

(1=Strongly Disagree, 2=Disagree, 3=Somewhat Agree, 4=Agree, 5=Strongly Agree)

Names	Items
Faculty 1	I interact regularly with my instructors to improve my knowledge base.
Faculty 2	I feel comfortable asking questions from my instructors in class.
Faculty 3	I take advantage of my instructors' office hours regarding my studies.
Faculty 4	I feel comfortable approaching my instructors for help regarding my assignments.

Mentoring:

Using the scale below, indicate how much you agree with each of the following statements regarding your experience with mentor(s)

(1=Strongly Disagree, 2=Disagree, 3=Somewhat Agree, 4=Agree, 5=Strongly Agree)

Names	Items
--------------	--------------

Mentoring 1	I meet with my mentors regularly every week.
Mentoring 2	I find my mentors helpful in my rapid integration into the Canadian culture.
Mentoring 3	My mentors helped me to quickly navigate my way around the college.
Mentoring 4	My mentors helped me to easily connect with other students.

Family:

How would you rank your agreement with the following statements?

(1=Strongly Disagree, 2=Disagree, 3=Somewhat Agree, 4=Agree, 5=Strongly Agree)

Names	Items
Family 1	I am close with my family.
Family 2	My family is proud that I'm studying in Canada.
Family 3	I am in school in Canada to support my family in the future.
Family 4	My family supported my decision to come to school in Canada.

Peer Support:

How would you rank your agreement with the following statements?

(1=Strongly Disagree, 2=Disagree, 3=Somewhat Agree, 4=Agree, 5=Strongly Agree)

Names	Items
Peer Support 1	My peers in my program motivate me to attend classes.
Peer Support 2	My peers are responsible for a large part of my success in my academic program.
Peer Support 3	I often seek help from my peers.
Peer Support 4	I am challenged by my peers to reach my potential.
Peer Support 5	I believe there is a lot that I can learn from my peers.

Mental Health/Counselling:

How would you rank your agreement with the following statements?

(1=Strongly Disagree, 2=Disagree, 3=Somewhat Agree, 4=Agree, 5=Strongly Agree)

Names	Items
Counselling 1	The mental health/counselling services help to increase my confidence level and integration on campus
Counselling 2	The mental health/counselling staff contributes to a large part of my academic success.
Counselling 3	The staff at the mental health/counselling often encourage me
Counselling 4	The mental health/counselling services is the first place I go to when I have emotional or psychological problems

Academic Advisor:

How would you rank your agreement with the following statements?

(1=Strongly Disagree, 2=Disagree, 3=Somewhat Agree, 4=Agree, 5=Strongly Agree)

Names	Items
Academic Advisor 1	I regularly seek advice from my academic advisors.
Academic Advisor 2	Having an academic advisor made a positive contribution to my student experience.
Academic Advisor 3	I respect the opinion of my academic advisors.
Academic Advisor 4	My academic advisors help me to better understand and appreciate the Canadian academic curriculum and culture.

Networking:

How would you rank your agreement with the following statements?

(1=Strongly Disagree, 2=Disagree, 3=Somewhat Agree, 4=Agree, 5=Strongly Agree)

Names	Items
Networking 1	I usually participate in networking events such as alumni, orientation, welcome party and other events on campus.
Networking 2	The networking events are a positive component of my academic study
Networking 3	I have made more connections with students, faculty and staff from other departments through the networking events
Networking 4	I find value in attending the networking events on campus

Work Permit:

How would you rank your agreement with the following statements?

(1=Strongly Disagree, 2=Disagree, 3=Somewhat Agree, 4=Agree, 5=Strongly Agree)

Names	Items
Work Permit 1	I found the work permit to be helpful in obtaining Canadian work experience.
Work Permit 2	The work permit made a positive contribution to my Canadian immigration experience.
Work Permit 3	I found the work permit helpful in supporting myself financially.
Work Permit 4	The work permit helped me to get job opportunities as a student.

Study Permit:

How would you rank your agreement with the following statements?

(1=Strongly Disagree, 2=Disagree, 3=Somewhat Agree, 4=Agree, 5=Strongly Agree)

Names	Items
Study Permit 1	I found the study permit to be helpful in obtaining my Canadian academic credential.
Study Permit 2	The study permit motivated me to better concentrate on my academic study.

Study Permit 3	The study permit made it possible for me to fulfil my dream of an international education in Canada.
Study Permit 4	The study permit made the possibility of my immigration to Canada possible.

Immigration:

How would you rank your agreement with the following statements?

(1=Strongly Disagree, 2=Disagree, 3=Somewhat Agree, 4=Agree, 5=Strongly Agree)

Names	Items
Immigration 1	I benefitted a lot from the various immigration events and seminars on how to become a Canadian permanent resident.
Immigration 2	I feel the information that I got from the immigration events contributed to my rapid integration in Canada.
Immigration 3	The prospect of becoming a permanent resident of Canada enhanced my commitment to my academic study.
Immigration 4	The immigration system of Canada for international students motivated me to come to study here.

Public Health Insurance:

How would you rank your agreement with the following statements?

(1=Strongly Disagree, 2=Disagree, 3=Somewhat Agree, 4=Agree, 5=Strongly Agree)

Names	Items
Health Insurance 1	Having a public health insurance coverage contributed significantly to my academic success.
Health Insurance 2	The public health insurance significantly made my cost of studying here to be cheaper and more affordable.
Health Insurance 3	The public health insurance coverage contributed to my decision to come to school in this province.

Health Insurance 4	My immediate family who are with me during my academic study benefited greatly from the public health insurance.
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Demographics and Background:

What is your gender? (1) Female, (2) Male, (3) Other, (4) Choose not to identify
What is your age in years?
Years in College: (1) First year, (2) Second year, (3), Third year, (4) Fourth year, (5) Fifth year or more
What is your ethnicity? (1) White/Caucasian, (2) African/Caribbean/Black, (3) Asian, (4) South American, (5) Mexican, (6) Middle East, (7) Other [Please specify]
What is your current relationship status? Please tick the correct one: <input type="checkbox"/> (1) Living with partner or spouse <input type="checkbox"/> (2) In relationship, not living with partner or spouse <input type="checkbox"/> (3) Single <input type="checkbox"/> (4) Other [In text box, please specify]
How many dependent children (18 years or younger) do you currently support? [In text box, please specify]
What is your current employment status? (1) Unemployed, (2) Working part time
Are you currently receiving financial aid? (1) Yes, (2) No

Participant Response Check:

Names	Items
Respcheck	I have read the questions in the assessments carefully and answered them honestly. (1) Not at all true, (2), (3) Somewhat true, (4), (5) Very true