EAST ASIAN INTERNATIONAL STUDENTS’ EXPERIENCES IN HIGH SCHOOL MATHEMATICS CLASSROOMS

by

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Abstract

This qualitative study of five Chinese or Korean international high school students takes place in the Greater Toronto Area and explores, from a sociocultural perspective, their discourse on the topics of differences between their home countries and Canada on matters of school structure, home life, and views on the model minority myth of Asian students excelling academically. The model minority myth is defined as homogenizing Asian students as an encompassing group of students whose academic success is attributed to their ethnicity. Through semi-structured interviews, it was discovered that most of the participants agreed that Asian students who had been educated outside of Canada were stronger academically in the subject of mathematics due to earlier and more rigorous training. These students also expressed their changing identities as independent students, the relevance of mathematics to their future academic and career goals, and their parents’ support of them following their own goals.
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Chapter 1: Introduction

In Canadian society, there is much discussion about the need for inclusive education and accommodating differences in schools. Particularly in metropolitan settings such as Toronto, Ontario and its surrounding areas, the diversity of the world is represented by the many different cultures, ethnicities, races, and linguistic backgrounds of students who attend its high schools. More evidence of the multicultural nature of Canadian schools is given by the number of international students of all ages, which exceeds more than 100,000 individuals, who study in Canada every year (Citizenship and Immigration Canada, 2012). These students are encouraged to study here as their “knowledge and skills are welcome in [Canadian] schools” (Citizenship and Immigration Canada, 2012). The question on all educators, policymakers and stakeholders’ minds should be: how do we create a school environment that is truly welcoming, in which students of all cultures, races, and ethnicities can feel comfortable creating their own identities and becoming active participants in the school and broader Canadian culture? A particular group of students that have been ignored are international students – those students who apply for temporary student visas to study in Canada while living on their own. Usually the youngest of these students are of high school age.

When students of minority race, ethnicity, culture and linguistic backgrounds enter high school after having been educated elsewhere, they must learn a new language, deal with the loss of old friends and extended family members, and cope with living in an unfamiliar environment. These changes occur while attempting to develop “interpersonal relational networks [which] would involve making new friends and acquaintances, maintaining old friends and family connections, then transforming them as necessary, so as to accumulate the individualized social goals and relations necessary to establish membership and to participate in the new club that is
Canada” (Hébert, Lee and Sun, 2003, p.88). High school is a time that is especially challenging for students because they are beginning to form a clearer self-conception. During the adolescent formative years, interactions between youth are crucial to how these young people construct their identities (Cummins, 1996). Of particular concern is how students who were not always raised in Canada fare when they enter the schooling system at the high school age.

As international students make the move to Canada, in many cases without their families, they face new challenges of participating in their established communities of practice while also becoming familiar with the norms of learning in a Canadian school and participating in their new Canadian communities of practice. From a sociocultural perspective, a cultural community is a “coordinated group of people with some traditions and understandings in common, extending across several generations, with varied roles and practices and continual change among participants as well as transformation in the community’s practices” (Gutiérrez & Rogoff, 2003, p.21). A minority racial cultural community is defined as a group of people who are viewed as being members of the same race that is ‘other’ than the White dominant one, and holding that race’s historical beliefs and practicing them (González, 2004). The key concept that sociocultural perspective tries to communicate is that membership in a cultural group is dependent upon the individual’s level of participation in the community’s shared ways, wherein ‘participation’ also includes contesting the shared ways (Rogoff, 2003).

The objective of my study was to examine the discourses of five East Asian international students on their experiences in their mathematics classes in an urban setting. According to Mills (2003 and 2004), Michel Foucault’s work on discourse defines it as a set of statements that are “regulated by a set of rules which lead to the distribution and circulation of certain utterances and statements” and at the same time keeps “other statements out of circulation” (Mills, 2003,
Thus, events and meanings that people find significant are organized and governed by discursive structures (Mills, 2004) and in fact, “we categorise and interpret experience and events according to the structures available to us” (Mills, 2003, p.56). As Gérin-Lajoie (2008a) explains, “social reality is shaped by discourses that in turn influence social interactions. Meanings are created through social practices and are influenced by history” (p.11). I define East Asian international students as those of Chinese and Korean ethnicities and international students as students who are studying in Ontario on short-term student visas and who are living with homestays. In my personal experience teaching Visa students, students who reside with homestays are living under unique conditions as they live with strangers who speak fluent English and who are often of a different ethnicity than the student; thus, these students tend to experience a very different home culture than what they are used to, and I wished to understand how this changed aspect of their lives influences their experiences studying in Canada. By experiences, I mean how these students navigate through their classes and their daily school lives as visiting international students. In particular, I am focusing on these students’ experiences in mathematics classes as the East Asian student is stereotyped as being good at math (Wing, 2007); in my own experience, high school math teachers view these students as assets by assuming these students already know the math and will have no problems adjusting to the Ontario curriculum.

The introduction of the revised Ontario Mathematics Curriculum for Grades 11 and 12 (2007) reveals that the main objective of high school is to meet students’ individual needs:

“The goal of Ontario secondary schools is to support high-quality learning while giving individual students the opportunity to choose programs that suit their skills and interests. The updated Ontario curriculum, in combination with a broader
range of learning options outside traditional classroom instruction, will enable students to better customize their high school education and improve their prospects for success in school and in life” (p.3).

The document outlines underlying principles that the mathematics curriculum focuses on, the most significant point of which is outlined below:

“Equity of opportunity for student success in mathematics involves meting the diverse learning needs of students and promoting excellence for all students. Equity is achieved when curriculum expectations are grade- and destination-appropriate, when teaching and learning strategies meet a broad range of student needs, and when a variety of pathways through the mathematics curriculum are made available to students” (p.3-4).

The goal of secondary mathematics curriculum is to ensure that all students attending Ontario high schools receive meaningful mathematics instruction that is suited to their individual needs. Asian students have traditionally been held to the model minority stereotype that paints them as being “high academic achievers” and coming from families who “highly value education” (Wing, 2007, p.462). My research aimed to explore East Asian international students’ experiences of studying in Canada, and in particular, studying mathematics in Ontario, while at the same time dealing with parental pressures from back home, adjusting to a new environment that is very different from what they are used to and living conditions that may not provide the old support system to which they are accustomed. While there has been much discussion about the needs of ethnic, racial and linguistic minority students in the field of education, international students seem to have been ignored, particularly at the secondary school level; one reason that Popadiuk (2010) asserts for this gap is that research conducted at the high school level is more challenging
to accomplish due to difficulty attaining informed consent and encountering more restrictions when recruiting participants.

In discussing the realities of life for East Asian international students, we must begin by examining how different they may find the ethnic makeup of Canada compared to their home countries. In urban centres such as Toronto, it is easy to point out all the people who are different from us in terms of physical appearance (Lee, 1999). The field of minority education reveals how students of ethnic, racial and even linguistic minority groups often see themselves being compared to White students in dress, linguistic behaviours, peer groups and academic achievements (Bergin & Cooks, 2002). Tensions may arise between members of the same ethnicity when faced with the prospect that aspects of shared cultural practices, such as language, are threatened by the influences of White culture and English language. For example, in some interactions within ethnic and racial groups, students may be expected to speak the language of their ethnic group rather than English; if they do not, they may be accused of trying to be “too Canadianized” by members of their same ethnic group (Goldstein, 2006, p.256). When such tensions arise, there are many resulting scenarios; minority students may feel the need to reject their own culture and associated ethnic ties (Lee, 1999), or they may resist the dominance of White society by banning together in a social identity that has as its first aim to resist White, dominant culture (Bergin & Cooks, 2002). Other adolescents may face xenophobia and racism that forces them to feel that they have no option but to form only co-ethnic friendships “for their own psychological well-being” (Tsai, 2006, p.293). Sometimes co-ethnic friendships can be based on linguistic similarities, especially when a student first arrives in Canada; for example, ESL students may not feel comfortable interacting with native English speakers due to “nervousness and embarrassment,” so they seek out others who can speak their home language
Some adolescents may consciously alter their behaviour in response to the context of a situation out of fear that “they may not receive the approval of those they are associating with at the time” (Downie, Mageau, Koestner & Liodden, 2006, p.531). While most of the literature deals with minority students who are immigrants or second-generation Canadians and Americans, there is evidence that suggests the results are applicable also to international students who come from East Asia. Nilsson, Butler, Shouse and Joshi (2008) explain that since “international students typically arrive on U.S. campuses from home countries where they were part of an ethnocultural majority, it seems reasonable that many of these learners come to U.S. institutions unprepared for experiences of prejudice” (p.153). As Nilsson et al.’s (2008) study focuses on international students at the college/university level in the U.S., part of the goal of my research was to determine if such statements also apply to East Asian international students who study in Canada at the secondary school level.

Often when we discuss minority education in mathematics, the focus is on the lower success rates of Black and Latino students of low socioeconomic class. The Diversity in Mathematics Education Center for Teaching and Learning’s (2007) review of equity literature in the field of mathematics describes cultural communities of practice as being participatory in nature; thus, students who are not part of the dominant, middle-class, White majority in North American schools are seen as participants, willing or otherwise, of minority racial cultural communities. For minority students, this means that their membership in their racialized cultural community is seen to have a direct impact on their abilities as mathematics students; “[b]ecause culture had come to be viewed as a holistic configuration of traits and values that shaped members into viewing the world in a particular way, these assumed rules for behavior were seen by some as the root of the educational failure of minoritized groups” (González, 2004, p.20). In
the case of Asian students, however, there is no discussion of failure. Rather, the model minority myth attributes Asian students’ success in North American schooling to their membership in their Asian cultural communities.

In my own experiences as an immigrant, East Asian parents stress to their children the importance and value of achieving high levels of success in formal school settings. Often these non-Canadian parents emphasize the hope of building a better future than the one left behind in their home countries (Krahn & Taylor, 2007). As I spent my elementary, middle school and high school years attending public schools in the Toronto District School Board, I realized more and more the stereotype that exists of East Asian students being studious, good at math and science and being overall overachievers. This stereotype was especially clear during high school when I came across the term ‘the Asian six-pack’ being used for the three grade 12 math and three grade 12 science courses, all in the University-bound stream, that were known as the most difficult high school courses. The use of the term illustrates a common conception of Asians in the schooling system in Ontario, the model minority myth. Students who are Asian are perceived to be very smart and capable of holding their own against, and even excelling beyond, the middle-class White population for which the institution of schooling is designed (Zhao & Qiu, 2009). These stereotypes certainly extend to students who are not children of immigrants but rather international students from East Asian countries such as China and South Korea.

If Asian students are factored into discussions about minority students’ lack of success at all, it seems that only their status as English Language Learners (ELLs) is the explanation for any trouble in school. In fact, a common conception is that Asian students, regardless of whether they are ELL or not and regardless of whether they actually have any willingness to study mathematics or were successful in the subject during their past schooling experiences, will
always be successful in science and math courses. One reason is that math is often thought of as a neutral subject that requires no knowledge of the English language (Cirillo, Bruna & Herbel-Eisenmann, 2010); another reason is simply because time and time again it appears as if the highest-achieving students in a math class are Asian students (Li, 2005). The goal of my research was to explore some possible answers to the questions,

1) How does the model minority view itself?

2) In particular, how do East Asian international students figure into the discussion of educating minority students in mathematics?

Certainly they do not fit into the same minority category as the ones traditionally studied for equitable mathematics instruction. In particular, East Asian international students do not fit into the lower socioeconomic class bracket; they are used to living an affluent lifestyle, as evidenced by the fact that their parents are able and willing to pay thousands of dollars in international student fees.

Visa students pay tuition fees ranging from $13,000 to $14,250 per year\(^1\) (School Board A, 2011d). Students who are able to arrange a place to stay – for example, with other family members or people they know – do so and also arrange their own custodianship. However, many international students do not have families living in Canada and their parents are not planning to apply for permanent citizenship; these students live with homestays, people who agree to provide students with a room and three meals a day, among other basic living needs (School Board A, 2011c). Often these homestay volunteers are employees of the school board and other community members. Thus, these students have the school board itself as their legal custodian and they live in homestays that are set up by the school board, which costs an additional $9,000

\(^1\) For anonymity purposes, any sources pertaining to the school boards that may identify them will be simply referred to as (School Board A, Year of Publication) and (School Board B, Year of Publication).
to $9,450 for the duration of the year (School Board A, 2011d). There are several other fees that students must pay – application fees, custodian fees, and medical insurance fees to name a few – so the minimum cost of an international student living in a homestay and studying in high school for the 2011/2012 school year was $23,750 (School Board A, 2011d). Clearly, these students come from a background of privilege since their parents are willing and able to pay such large sums of money for their children’s education.

Another unique perspective that these international students bring to the study of minority education is the impact of living with strangers. Having taught several of these visa students, I have come to the understanding that they often find studying without their families nearby difficult. In many cases I have witnessed students changing homestays several times during the school year due to unhappiness on the part of the student, the homestay family or both. Being a teenager and studying in a foreign country cannot be an easy endeavour. Although I had always felt the pressure from my parents to do well in school, I at least had their emotional support and physical support as they lived here too. Part of my research focus is on how living with strangers frames these students’ experiences of studying in Canada and how it influences their discourse on family relationships.

Having studied minority education at the graduate level with a focus on mathematics, I have learned a lot about the struggles and challenges of racial, ethnic and socioeconomic minority students in mathematics classes. However, there has been a lack of focus on East Asian students’ challenges and realities in the mathematics classes, almost as if they do not merit discussion. As a public high school teacher in a metropolitan area, I still see many instances of the stereotype of East Asian students being the ‘smartest’ students in school being touted by both Asians and non-Asians alike. This being said, how do these East Asian international students
portray the model minority stereotype? Are they truly high achieving in mathematics, especially when they need to learn a new language for academic fluency? Furthermore, as high school students who are also on a journey to create their identities amongst their peers, do they see themselves as full participants in their Canadian school community? These international students need a voice because their stories are ones that have not been studied in detail yet, and academically their unique situations will provide depth and breadth to the research that has already been completed on international students at the post-secondary level.

The focus of my research is answering the question, what are the experiences of five East Asian international students in high school mathematics classes in an urban setting? As previously mentioned, I am focusing on these students’ experiences in mathematics classes because of the stereotype that they do not need any assistance to succeed in math class. I am also focusing on mathematics as it is seen as a gatekeeper to many college/university programs and professions (Lubienski, 2007; Walker, 2003); its importance in the academic careers of East Asian international students’ is a point of interest. I have gathered qualitative data through interview sessions with students from two urban school districts just outside of Toronto. I used semi-structured interviews to conduct my study of emerging patterns, as well as differences, in five East Asian international students’ experiences in Ontario math classrooms. My main goal is to describe “what all participants have in common as they experience” the phenomenon (Cresswell, 2007, p.58) of studying in Canada, without their families, during their formative teenage years, as well as the differences in their experiences that showcases their unique voices.

While there have been studies of Asian international students at the post-secondary level, there has been little research done at the secondary school level to describe how students as young as fourteen years of age negotiate their participation in a new cultural community without the
support of their friends or families, which experience is often exacerbated by the fact that these students are English Language Learners, or ELLs. Furthermore, they may find themselves subjected to the model minority stereotype, something they may not have been used to back home when they were part of the ethnic and racial majority. All of these factors influence these students’ discourse on how their identities as East Asian international students, and their roles in their mathematics classes, have been affected by the move to Canada.

As a Korean Canadian teacher, I feel that the study of what East Asian visa students make of their educational experience in Canada is important because it adds a dimension to the field of education that is overlooked. A focus on international students will give a new perspective on the studies of how East Asian minority students form their identity since these students’ primary allegiances may lie with their home country rather than the country in which they are studying; their experiences will be very different from that of immigrant students, who come to Canada with an understanding that this will be their permanent home. This study will give high school East Asian international students a voice; such opportunity for the students to speak about their own experiences has been lacking (Chan, 2007). Although Asian students tend to be viewed as the model minority due to their perceived higher levels of achievement than Whites and other ethnic minority groups, I feel that their individual experiences should not be ignored if Canada continues to laud itself as a multicultural community. This is especially true as many international students often go on to pursue post-secondary education options in Canada.

In the following chapter I will outline what has been researched about international students in general and Asian international students in particular. I will also explore what minority education, including identity formation and participation in cultural communities of practice, specifically in the field of mathematics, encompasses. Then I will discuss how Asian
students are viewed in the mathematics classroom and the specific need to teach the language of mathematics. Lastly, I will give an overview of the notion of discourse and how our experiences are framed by societal and cultural influences.
Chapter 2: Literature Review

The International Student Experience

There are many benefits and risks involved in being an international student and hosting international students. Studies on international students focus on those students who come to the United States and Canada mainly at the post-graduate stage of their studies. A common thread throughout the research is the discussion of the benefits of hosting international students to the host country. One benefit is that the much higher fees that international students pay to study in the United States goes back into academic pursuits by funding scholarships in technology-related fields (Anderson, 2010). These higher tuition fees that international students pay to study in Canada also serve as a way to offset the decrease in government funding of higher education (Cudmore, 2005). In addition to the financial resources that international students bring to the host country, there exist larger social benefits as well. International students become a “pool of preferred potential immigrants” (Chen, 2006, p.78) due to their intellect and skills, and those students who do decide to stay in the host country add “intellectual capital” to the economy (Lee & Rice, 2007, p.381).

One of the benefits to the home country is that the knowledge international students acquired while studying abroad contributes to the “development of their home society and economy” (Grayson, 2005, p.71). In addition, the network that international students create between their home country and the host country is one that allows both parties to benefit by facilitating future development of friendly economic, trade and ambassador relationships (Grayson, 2005; Cudmore, 2005). By studying abroad, international students add academic, cultural and economic benefits to both the host country and their home country (Chen, 2006).
The most important benefit of studying internationally is that it prepares future generations to live in “an increasingly international and culturally diverse environment” (Cudmore, 2005, p.43). Some students who return home after their studies do so with more knowledge than they started with, as well as a greater appreciation for and understanding of global relations and feelings of affection and affinity for the host country (Grayson, 2005; Lee & Rice, 2007; Cudmore, 2005). Overall, studying internationally allows students to learn new things, a new language, meet new people, and broaden these students’ appreciation of a larger world outside of their home country (Popadiuk, 2009).

Existing literature also highlight the negative implications of studying abroad. From the perspective of the host country, international students may be viewed narrowly “as economic revenue, which in turn can place less emphasis (and accountability) on their cross-cultural and academic experiences” (Lee & Rice, 2007, p.384). On the part of the home country, having students study abroad can result in a “brain drain” that deprives their home countries of “the skills and technological advancements that can only come through the development of an educated workforce” (Cudmore, 2005, p.50). The negative effect on the international students is that studying abroad can result in them facing racism in the form of exclusion based on supposedly justified notice of differences in cultural background (Lee & Rice, 2007). They may feel left out from student study groups or social events as well as sense their professors’ unwillingness “to be flexible with accommodation to non-standard speakers of English” (Lee & Rice, 2007, p.397-398). Such hardships are especially salient in the case of international students from non-Western and non-English-speaking countries, reinforcing how international students of non-white ethnicities in particular may face difficulties when studying in North America (Lee & Rice, 2007).
The majority of the previous studies on international students have focused on the psychological perspective of how they fare when they arrive in a foreign country, what steps they take to adjust, and what supports are made available to them to help them become acculturated. Many cases highlight the struggles of these students as they study far from home and families. Heggins and Jackson (2003) state that “although […] Asian international students seem to be a resilient group, homesickness and loneliness are pervasive, and depression is common” (p.381).

Within the group of Asian international students, however, there is still variation in how quickly they become acculturated; factors such as their level of independence, language competence, and prior travel experiences play a role in their ease of transition (Heggins & Jackson, 2003). Typically, Asian international students under-utilize professional counseling services that are provided by the college or university they attend often because of the “shame and stigma that are associated with psychological problems in traditional Asian culture” (Heggins & Jackson, 2003, p.382).

Nilsson et al. (2008) explain that in general, “international students arriving from Asian social contexts are likely to have been brought up in a culture that emphasizes collectivism and obligation to family and community” that results in “high standards of achievement and substantial pressure to excel” (p.149). Often, the result of such cultural obligations and parental pressures is that Asian international students strive, problematically, for perfection (Nilsson, Butler, Shouse & Joshi, 2008). Similarly, Leung (2001) discovered that both international and immigrant Chinese students in Australia were less satisfied than their Australian counterparts with their academic and social successes. The literature shows that Asian international students face possible racism and discrimination as well as an acute sense of non-belonging during their time in North America, which impacts their overall well-being negatively (Nilsson, Butler,
Shouse & Joshi, 2008). In Diangelo’s (2006) study of power structures in a U.S. college classroom, she discovers that the Asian international students were lowered to the level of mere audience by their White, English-speaking classmates. By dominating the discussion and easily accepting the loss of multiple perspectives, the college classroom “reinforce[d] a message that there is nothing of significance to learn from students of color, either intellectually or personally” (Diangelo, 2006, p.1993).

Clearly, studying outside of the home country is a risk for international students on many levels. What, then, are some of the push and pull factors that international students consider when choosing to leave their home countries to pursue studies in Canada or other destinations? Understanding these factors is critical for forming a more complete picture of these students’ experiences, starting from the time they consider studying in a foreign country and ending with the completion of their studies. Push factors are those reasons why a student would leave their home country, positive or negative, whereas pull factors are those reasons that attract a student to study in a particular country (Chen, 2006). Canada’s current reputation as a country that is more tolerant and accepting than the U.S. seems to be acting as a pull factor (Chen, 2006; Cudmore, 2005). The decrease of visa applications to the U.S. after September 11th, 2011 due to strict regulations and high costs of post-graduate education (Dassin, 2004) also support the theory that Canada’s “straightforward visa process and reasonable ease of obtaining a student visa” plays a role in attracting more international students (Chen, 2006, p.95).

Although pull factors such as safety and tolerance of diversity are some of the concerns that post-secondary international students have, it seems the most important factors they consider are the institute of study’s reputation, quality, ranking, and research capabilities (Chen, 2006). The same author found that international students tend to favour the United States because they
considered the institutions there to have more funding for research as well as access to the best technology and ties to the most influential corporations. At the same time, however, international students seem to recognize that a graduate degree from Canada will allow high mobility to other countries such as the U.S. (Chen, 2006). It seems that in order for Canada to remain a competitive force in attracting international students, Canadian education must invest more to improving graduate education through such methods as participating in international conferences and faculty-student exchange programs as well as investing more funds into research (Chen, 2006).

Further research on how these students’ unique needs are or are not being met in Canadian classrooms would also inform future directions of the field of education and provide some indication of how to better support international students. Another way to invest more into the education of international students is by exploring how their realities are similar to and different from the realities of students who have lived in Canada all their lives, to give them a voice in the education system that has thus far not paid much attention to them. Nilsson et al. (2008) recommend “[g]iving international students opportunities to express their hurt, frustration, and disappointment with” the host country and its people, as well as “involving advanced international students who have resided in [the host country] for a few years in campus outreach efforts with newly arrived international students” (p.155). In order to add to current existing research on international students from the psychological lens, my study aims to examine the sociocultural factors that influence these students’ identity formation while abroad and their discourse on their educational experiences in Canada.

Currently there is a lack of discussion of the effects of studying as an international student at a younger age. Popadiuk (2010) believes that some of the reasons are due to
difficulties obtaining informed consent from parents who live in another country and who may not fully understand what the research is about due to varying levels of fluency in English. In addition, the process of getting permission from research ethics boards to study minors is more time-consuming and complex than when researching students of majority age (Popadiuk, 2010). Thus, in spite of the fact that these high school level students have different and unique concerns compared to graduate level students (Kuo & Roysircar, 2006), there is not enough attention given to their experiences and needs while studying abroad. This younger group of students should also be included in discussions as their experiences would be different from those of Asian immigrants and Canadian-born Asian students and unique to those of international graduate students. My study aims to include these students’ voices in order to add more depth and breadth to existing research.

There are some similarities as well as differences when comparing the psychological development of Asian international students and Asian immigrant students. In Leung’s (2001) study of Chinese migrant (immigrant) and overseas (international) students in Australia, the researcher discovered that when international students felt a sense of control, they more easily acclimatized to their new environment both academically and psychologically, while supportive relationships with family and friends played a more crucial role in the well-being of immigrant Chinese students. Kuo and Roysircar (2004) discovered that when both international and immigrant students arrived in Canada during their teen years, both groups showed similar levels of acculturative stress, which suggests that within groups of Asian immigrant students there exist heterogeneity of acculturation rates. What adds to the stress of Chinese high school international students’ adjustment to studying in a foreign country without the support of their family is that there is a “lack of information about the host culture” and students may have “little sense about
the purpose of their sojourn” (Popadiuk, 2010, p.1523). According to the results of Huang’s (2009) study of four Chinese graduate students studying in the U.S. or Canada, international students may be better prepared for the changes they will encounter if they are told about the differences in the academic culture – teaching style, student-teacher relationship, and role of the teacher – between China and North America in advance of their departure.

Although much of the literature does not discuss international students at the secondary school level, we may infer that high school students may face similar difficulties in adjusting to studies in a foreign country; thus, some of the suggestions on how to better help international students at the graduate level may be applied to high school East Asian international students as well. The goal of this research is to fill the gap that currently exists to better inform the education community about the struggles and challenges that these international students face when they come to Canada to study during their adolescent formative years, and in particular how these students talk about their experiences studying abroad. With more detailed research into these students’ experiences comes better information that school counsellors can use to help students feel less anxious about the transition to a new country in order to “prevent or mitigate unnecessary suffering of these young international students” (Popadiuk, 2009, p.242). Additionally, the study of these students’ discourses on their experiences will add to the important work that has already been done on adolescent identity formation, what they take away from the experience of learning in a new country, and how they negotiate their participation in new cultural communities of practice.

In the following sections of the literature review, I will outline how identity formation results from participation in cultural communities of practice and describe how international
students participate in these communities differently from and similar to other students studying in Canadian schools.

Identity Formation and Participation in Cultural Communities of Practice

Identity formation is an important concept in this study because of my interest in how these students’ sense of selves change with their temporary move to Canada and what their discourse reveals about how they make sense of their new surroundings. The traditional definition of identity claimed “an all-inclusive sameness, seamless, without internal differentiation” (Hall, 1996, p.17). On the other hand, modern definitions of identity allow for change and fluidity and indicate more uniqueness in individuals rather than a mark of sameness. The new, fluid definition of identity is that it is a process of formation rather than a fixed end product that people hope to achieve or become at some point in time. Hall (1996) defines identity as “conditional, lodged in contingency” (p.16), arguing that it needs to be understood as “produced in specific historical and institutional sites within specific discursive formations and practices” (p.17). Furthermore, he claims that identity emerges “within the play of specific modalities of power, and thus are more the product of the marking of difference and exclusion, than they are the sign of an identical, naturally constituted unity” (Hall, 1996, p.17). This is in line with Allahar’s (2006) definition of soft sense of primordial attachment, which is loyalty or attachment to a group that is socially constructed as if blood ties exist where they do not, and this attachment formation “depends on the circumstances at hand and understands that sociopolitical identities are situational, not biological; flexible, not fixed” (p.33).
Allahar (2006) argues that, essentially, all people want to belong to a group. It is through membership of such collective bodies that people feel safe and able to claim affiliation with certain beliefs and practices. Although class and economic affiliations are more practical and address more pressing needs amongst groups of individuals by providing support and resources needed for survival, it is the “more popularized and visible primordial concerns of race, ethnicity, tribe and nation” that play a stronger role in the behaviour of individuals and group affinity choices, even in modern society (Allahar, 2006, p.38). In Hall’s (1996) description of what the process of identity construction looks like, both material resources – class and economic affiliations – and symbolic resources – race and ethnicity affiliations – are required. Woodward (2002) asserts that the process of identity formation results in claims of what we are as well as what we are not, thus “by stating where we do belong we mark ourselves off from those to whom we do not belong” (p.147).

Woodward (2002) highlights the difference between race and ethnicity when it comes to defining identity formation. She discusses the difference between ethnicity, or “routes,” and race, or “roots” – the former representing changes that occur in ourselves during the journey we take in our lives and “enables us to prioritize particular moments on the journey in order to highlight the moments that matter, the ones that have been formative” (p.155), whereas the latter defines “a means of marking ourselves out as different from others and the same as those who share the same stories of origin” (p.144). She argues that,

“People need a sense of place and of belonging and this is often translated into the desire for roots and some sense of authentic origins, a start to the story so that we can move forward through having laid claim to a myth of origin. The question is whether the notion of identity as rooted and the essentialism that appears to
accompany this idea can deliver the security and feeling of groundedness that people may seem to want” (p.137).

In Woodward’s (2002) view, the essentialist view of identity approaches its formation process as dualistic – a binary in which people are assigned what they are or what they are not based on genetics, which does not allow for any blurred lines.

Related to the claim of an identity based on ethnic background is the claim of an identity based on linguistic background. Gérin-Lajoie (2005) argues that adolescents who claim a bilingual identity do not necessarily participate in the practices of that linguistic background (p.903). She asserts that an individual’s identity path, their parcours identitaire, will be influenced by how they position themselves in regards to their social and linguistic practices,” as well as be affected by other “factors such as social class, gender, race, etc.” (p.903). In her study of Canadian adolescents’ views of their bilingual identities, she discovered that despite two students claiming a bilingual identity, it meant two very different lived realities. For one student, his father considered “the market value of French” to be the most important consideration for why the family uses the French language (p.907). The second student, on the other hand, used English only as a language of communication and being more centrally situated in French cultural practices – participating in French activities, to “live in French” – was more important to her sense of identity (p.909). The results from Gérin-Lajoie’s (2005) study indicates also that family and friends strongly influence how adolescents form their bilingual identities and in what ways they interact with their French minority language and culture in an English-dominant society. Although the study was about an official minority language in Canada, the results should be extendable to other minorities who “have learned to live on and across very distinct language boundaries” (Gérin-Lajoie, 2005, p.912).
In addition to the issue of a linguistic identity, minority students in Canada – those students whose ethnicity and linguistic background is not White Anglo-American and who do not speak English as their primary language – are influenced by other factors when deciding their level of participation in their cultural communities of practice. The friendships that students form with their peers play an important role in their level of participation in their school cultural community. As international students have already begun social interactions with peers in their home country and started to develop a sense of their routes and ethnic background, they face changes when thrust into a new country where they are suddenly part of the ethnic minority and their language skills are not as good as hoped; the task of building social interactions, from which identity formation processes takes place, becomes more difficult as these international students must learn to navigate new practices and cultural norms. As Popadiuk (2009) discovered, “the complexity of human relationships and how interpersonal relationships facilitate and hinder transition and adjustment of unaccompanied Asian international students” is an important addition to the existing academic knowledge of international students’ experiences (p.236). Thus, the peer groups that East Asian international students participate in have an impact on their identity formation while they study in Canada and for their future lives that follow.

For immigrant and second-generation adolescents, parental influence is a large consideration in the types of friendships and social comforts these students form. Depending on what parents want for their children, young immigrant adolescents often have little or no control over how they live their lives. According to Stroink and Lalonde (2009), second-generation Canadian adolescents must negotiate two worlds with potentially contradictory cultural values and ideals – one in which they “encounter Western values and ideals through peers, teachers, and
media” and another in which they meet “the heritage culture through parents and other members of the immigrant community” (p.45). Thus, bicultural students experience inner turmoil as they try to “identify with both [cultural] groups and reconcile their unique norms and values” (Stroink & Lalonde, 2009, p.45). This is often the case when the parents’ culture is one that is stricter than the European Canadian one (Ho, Bluestein & Jenkins, 2008). The differing levels of strictness or parental harshness can result in different childhood experiences for immigrant children, including pressure to be friends mainly with other children of the same ethnicity or race (Schneider, Dixon and Udvari, 2007). The commonality of cultures makes it easier for parents to keep tabs on what their children are doing, since they would be able to communicate with their children’s friends’ parents. Furthermore, assuming that some of the cultural aspects make their way into raising children – such as setting curfews and rules about dating or academic expectations – co-ethnic friendships allow parents to feel like their children are on the same level as the rest of their friends. It is not uncommon to see Asian international students from the same country stick together (Heggins & Jackson, 2003); one reason for this may be that international students find more in common with each other than with their Canadian peers.

During the adolescent formative years, friendships can be crucial to how young students construct their identities. For immigrant students, it is important to be able to form new bonds once arriving in Canada in order to re-establish a sense of social security; the same is true of international students who have a much harder task in front of them, not only because of their older age but also because of the (generally) temporary nature of their stay in Canada. One way to form a bond with others is by seeking out peers who are of the same ethnicity and who speak the same language (Hébert, Lee & Sun, 2003; Goldstein, 2003; Lee, 1999). Co-ethnic friendships are often easier to form and provide protection for immigrant students, and by
extension, international students. In instances where cultural values and linguistic origins are similar, it is easy for children of the same ethnicity to relate to each other and be more at ease with one another. Holding this group membership can also be a way to remain separate from “those” White students who do not find it easy to understand the restrictions that some immigrant parents place on their children. In the case of international students, it may be that these students find it easy to relate to each other because of similar socioeconomic backgrounds and expectations that come with being an international student.

Sometimes co-ethnic friendships can be based on linguistic similarities, especially when a student first arrives in Canada; for example, ESL students may not feel comfortable interacting with native English speakers due to fear of ridicule, so they seek out others who can speak their home language (Tsai, 2006). While one of the main reasons international students come to Canada is to become academically fluent in English, it may be a source of comfort to be able to speak the home language with their peers in a place that is so far from home. Although Asian international students may “have excelled academically in their home countries,” their knowledge of academic English may be far behind that of their peers; thus, they may find it difficult to understand what their teachers are trying to communicate to them about the subject matter (Heggins & Jackson, 2003, p.385). Other times, the co-ethnic group memberships can be an act of banding against the dominant White, English-speaking society (Bergin and Cooks, 2002). Continued racism and xenophobia that emphasize the “otherness” of immigrants (which is further exacerbated by some ESL programs) may push immigrant youth to become friends with those who are ethnically and culturally similar to them (Tsai, 2006). This othering can be especially salient to new international students, prompting them to group with other international students from the same home country.
The formation of co-ethnic or co-linguistic friendships is often beneficial to immigrant and international students. One advantage may be when students with limited English knowledge come together, they can help each other understand a teacher’s explanation or even discuss the marks they received on a test or assignment (Goldstein, 2003; Gutiérrez, 2002). Having friends who are interested in academia is important; having friends who can easily communicate with one another is critical. By having a group of same-language speakers in the classroom, even though that language is not English, it can further the group’s motivation of achieving high marks and thus further their cultural capital by improving their academic standing in their school (Goldstein, 2003). This is particularly true of international students whose sole purpose of being in Canada is to receive an excellent education, one that their parents pay thousands of dollars for every year. Heggins and Jackson (2003) point out that according to Ong (1989), Asian international students “tend to isolate themselves from the general population by socializing and studying only with other Asian international students” (p.382).

There are some tensions that may arise when one only forms co-ethnic friendships. Goldstein (2003) argues that by mastering the English language for social use, minority students can increase their social capital through forming inter-ethnic friendships – friendships outside of one’s ethnic cultural community. The reality of life in most of Canada (and in actuality, life as a global citizen) is that English is needed in order to acquire educational degrees and to work in high-paying, elite professions. When immigrant and minority students only have friends who speak the same non-English language as they do, they will often choose to speak that other language more often than English (Goldstein, 2003). The double-edged sword becomes, if one cannot speak English, one would find it easiest to form friendships with group members of one’s ethnic and linguistic origins (Hébert, Lee & Sun, 2003); then once these co-ethnic friendships
form, it is difficult to use or practice English with each other – out of embarrassment, out of inconvenience, or out of not wanting to appear better or showing off – which results in a permanent group formation based on ethnic and linguistic origins.

One result of forming co-ethnic friendships is that when an ethnic group of students stick together, these students’ foreigner status is more markedly apparent. When faced with racism and discrimination from people outside of one’s ethnic cultural group, one outcome is that rather than fight against the discrimination, minority students may respond to perceived racism and discrimination by “hating their ethnicity and race” (Lee, 1999, p.114). For this reason, immigrant youth may choose to not become friends with white students “for their own psychological well-being” (Tsai, 2006, p.293). On the other end of the spectrum of behavior, immigrant students may instead favour acting more like the White, European-Canadian peers whom they see as the norm of society (Lee, 1999; Bergin & Cooks, 2002). Accusations of “acting white” (Bergin and Cooks, 2002, p.113) are based on observations of behaviours such as speaking standard English, dressing unlike other members of their minority group, associating more with White peers, and achieving high academic standards (Bergin and Cooks, 2002). This last point does not apply to international students, who in general have high academic standards because they were already high-achieving students in their home countries and their parents have sent them to Canada specifically for the purpose of studying; however, an unexpected side effect of studying in Canada may be that these students begin to abandon their parents’ views or their home culture’s views of behaviours, which will influence their identity formation.

Stroink and Lalonde (2009) assert that immigrant students who are able to integrate their home culture and their school culture only experience conflict when pressured “from ethnic peers to behave more in accordance with ethnic norms,” while on the other hand, students who
identify only with their ethnic culture experience “the greatest amount of personal discrimination and exclusion from the mainstream culture” (p.46). It is a challenge for students to balance their loyalties to their home culture – live by their parents’ wishes – as well as live by the norms that their friends have set for them (Chan, 2007).

Sometimes the biggest determining factor of whether a culture, ethnicity or language is encouraged and upheld in the home environment has to do with how the parents feel about the “market value” of the language or culture (Gérin-Lajoie, 2005). When parents believe that the primary purpose of being bilingual is for financial security – that is, having more opportunities in the future, being more marketable in the business world which translates into better job security and financial benefits – their children may follow that line of thought and only claim a bilingual identity without actually practicing the social and political aspects of maintaining such an identity (Gérin-Lajoie, 2005). This may be an often-seen result of international students studying in Canada; since their sole purpose is to acquire an education, they may not be active participants, or even desire to be active participants, in Canadian culture or see themselves as belonging to social groups here. Even though inter-ethnic relationships (those between people of different ethnicities) may not be as strong as co-ethnic relationships (those between people of the same ethnicity), they are still bonds that form and add much onto a person’s social network. By forming friendships with students outside of their same ethnic groups, “these youth are grounding themselves in Canadian culture, they are living Canadian multiculturalism, and they are learning to master the symbolic and relational codes embedded in the host society” (Hébert, Lee and Sun, 2003, p.102).

While having friends of other ethnicities does not signify a sense of tolerance or openness, it seems that people are more comfortable in this multicultural society to see different ethnicities...
of people in one group in order to achieve a sense of living in a diverse, accepting society, even if inter-ethnic friendships are not as stable as co-ethnic ones (Schneider, Dixon and Udvari, 2007). In fact, Stroink and Lalonde (2009) found that immigrant adolescents who believe more strongly that their home culture is very different from their school culture are less able to identify strongly with both cultures and suffer from lower levels of self-esteem. One result of living in such a diverse country is the prevalence of the cultural chameleon – someone who changes their identity based on the social context (Downie, Mageau, Koestner and Liodden, 2006). One way that students deal with living in a multicultural environment like Canada is to not choose one ethnicity or other, or to define their identity in rigid term. Thanks to the effect of globalization, cultures and cultural practices cannot be viewed as fixed and immovable; in fact, being a chameleon works to the benefit of those adolescents going through turbulent stages in their lives in which nothing seems stable (Yon, 2000). Stroink and Lalonde (2009) also point out that being bicultural may have positive results, such as being able to successfully navigate living in a global society and that “dual in-group identification, which some biculturals find inaccessible, is associated with benefits for adjustment” (Stroink & Lalonde, 2009, p.59).

This chameleon-like attitude can be a natural consequence of immigrants who choose to embrace the host culture’s values and customs in some form of participation (Ho, Bluestein & Jenkins, 2008). A chameleon-like behaviour is not necessarily better for one’s social or emotional well-being, however; in some cases, these same students are more likely to report less positive perceptions of their ethnic culture and lower well-being (Downie, Mageau, Koestner & Liodden, 2006). When faced with racism and xenophobia, the negative feelings about how the chameleon’s culture is being perceived can turn into resentment toward others, which thus turns into resentment at oneself for playing the chameleon game. Some may not know what to do and
become changeable entities that conform and adapt to any given situation by changing their own identities (Downie, Mageau, Koestner & Liodden, 2006). In the case of international students who may live with families whose cultures are not like their home cultures and who may make more of an effort to socialize with students outside of their home cultures, we may see more of a cultural chameleon who adopts one persona while studying in Canada and then another persona while visiting family back home.

Due to the diverse population in North American schools, addressing the social needs of minority and immigrant students is a high priority (Chan, 2007; Lee, 1999). As Stroink and Lalonde (2009) explain, bicultural immigrant students go through an especially difficult time forming their identities as they navigate reconciling the differences between their Western, school culture and their Eastern, home culture. Lee (1999) asserts that “[e]ducators who work with Asian American immigrants and refugees need to be especially aware of the possible differences between home and school culture and the intergenerational tension that can exist in homes in which cultural transformation may be occurring” (p.118). This is especially important since immigrant students “participate in a curriculum that was developed and implemented by others, whose perspectives on curriculum and schooling are shaped by narratives very different from their own” (Chan, 2007, p.192). Goldstein (2003) presents a similar view that when teaching bilingual students, educators need to keep in mind these students’ “multiple socialization agendas and participation in multiple communities” (Goldstein, 2003, p.248). If students avoid academic achievement, or vehemently avoid being seen with students outside of their own ethnic groups in order to “resist white hegemony and the school power structure,” educators need to figure out what they need to do to restructure the system so that these minority students are being equitably treated by both staff and peers (Bergin and Cooks, 2002, p.115).
While much of the literature surrounding minority students have been about immigrant students, some similar results can be applied to international students who are also studying a curriculum that was designed by others, in a culture that views them as outsiders because of their transient nature. Although these students’ needs may not be on the forefront of educators’ minds because they have chosen to study in Canada and come from affluence, they still deserve a voice. Furthermore, it is precisely because they have chosen to study in Canada and we accept them to study here that we have a responsibility to explore what draws them to Canada and to consider the implications of these students’ presence to our education system and Canadian society as a whole.

It is clear that in such a global society and a multicultural one like Canada, “the relations and cultural practices [of students] emerge as complex, full of surprises, contradictions, ambivalence and tensions” (Yon, 2000, p.155). While forming close friendships is important for adolescents’ emotional well-being, the looser acquaintanceships formed between inter-ethnic students are also mutually beneficial ones that allow for respect for one another and exchange of resources (Hébert, Lee & Sun, 2003). Perhaps the continued exchange of ideas and collegial feelings can turn into trust of other people, greater openness toward different ethnicities and races, and the acceptance of changing definitions of identity. Although the literature does not specifically discuss international students, we can infer that similar tensions and issues of negotiating identity through language use would exist for these students.

In addition to identity formation through language practices and peer relations, another facet of these students’ experiences which I am interested in learning about is their identity as mathematics doers. Cobb and Hodge (2007) claim that students studying mathematics continuously develop the following three identity constructs: the normative identity, which
encompass norms and obligations a student would have to fulfill to be a successful math student in a particular classroom; the personal identity that describes who students are becoming in certain math classrooms, and the core identity, which refers to students’ more long-term belief of who they are and who they want to be. The same authors argue that students reconstruct their core identities as they participate in cultural communities of practice. These relationships between identity constructs and communities of practice indicate that minority students’ participation in mathematics greatly influences how they construct their identity as mathematics doers and as members of racialized cultural communities (that is, communities of practice wherein the members are seen by outsiders to have shared beliefs, values and practices based primarily on their perceived race). This means that students’ core identities are developed as a relationship between the mathematics identities and their other identities, such as their racialized and gendered identities, and “[a]ny challenge or affront to one [of these identity constructions] is then interpreted as a challenge to others” (Martin, 2007, p.151). Through these students’ discourses, I would like to learn more about how their identity as East Asian student and mathematics doer are interconnected in order to form a more comprehensive and complex picture of their experiences studying in Canada.

When minority students do not achieve good results, the poor achievement results often lead teachers, the institution of schooling, and other invested stakeholders to view the students as deficient – lacking something that would otherwise allow them to be academically successful (González, 2004). The deficit view of minority students leads to the reasoning that their participation in their racialized cultural communities is causing their poor achievement in the subject of mathematics (González, 2004). Consequently, students’ achievements in mathematics have a significant impact on their identity formation as mathematics doers – that is, as
participants in the mathematics community – as well as their racialized identity formation. While existing literature and research focuses on minority students of black and Latino backgrounds, similar statements can be made of East Asian international students’ successes being attributed to their race. When these students succeed, it is often believed to be because they are of East Asian descent; if they do not succeed in mathematics, they are often viewed as an atypical Asian student. Exploration of these international students’ discourse on their mathematics identities will give some indication of how social constructs and their cultural communities of practice from back home have influenced and continue to influence their discourse on their experiences in Canada and their identity formation.

The next section of the literature review will deal with some of the differences between East Asian and North American school cultures that result in different approaches to education.

*Differences between East Asian and North American School Cultures*

The differences between East Asian and North American education systems have been discussed in various literature. In Stroink and Lalonde’s (2009) study of East Asian Canadian undergraduate students, some born in Canada and others born outside of Canada, the authors determined that the students perceived the Canadian and East Asian cultures differed most on the traits of adventurous, traditional, and quiet, and on the values of keeping the old ways and going your own way. They also found that students believed the two cultures to differ least on the traits of proud, moderate, and idealistic, and on the values of self-control and social order. Myers, Zhong and Guan (1998) assert that Chinese culture emphasizes inequality among members by emphasizing utmost respect and deference to elders or those in positions of authority while
American culture values equality of all people. This view is supported in observations of the Chinese education system that skews more heavily toward the teacher being the foremost authority and source of knowledge in the class and whose focus is on lecturing students (Huang, 2009).

Huang (2009) summarizes that literature has focused on the main difference between the Western education system and the Eastern education system to stem from the dissimilarity between Socratic values of learning and Confucian values of learning. The Socratic style of learning is based on the Socratic values of questioning belief, formulating personal hypotheses, and becoming an independent doer, whereas the Confucian style of learning values effort, respect, behavioural reform, and practical ways of acquiring knowledge (Huang, 2009). Confucian philosophy of showing respect to authority figures and hard work rather than ability leading to success are values that strongly influence Chinese ways of thinking and behaving (Huang, 2009). Cheng and Guan (2012) agree that the Confucian values of Chinese culture, along with the collectivist beliefs, are reasons given in the literature to explain Chinese students’ “passive learning behaviors” (p. 414).

The difference between Confucian and Socratic views have led to a traditional portrait of Chinese and Korean students as being passive learners while North American students are portrayed as self-directed, active learners (Cheng & Guan, 2012). The authors cite such characteristics as “low levels of classroom participation, a reluctance to ask questions or think independently, a tendency to rely on teacher–student relationship, and low levels of demonstrated autonomy in study practices” being representative of East Asian learners (Cheng & Guan, 2012, p.414). The perceived lower level of independence in the Chinese education system is highlighted by Myers, Zhong and Guan (1998) who report that Chinese students have less
choice in what courses they take during their four years of study at a public post-secondary institution in China whereas American students attending a U.S. college are expected to independently map out their program pathway with a little bit of guidance from faculty advisors. In fact, Chinese students are trained “to sit in large lecture halls, assiduously take notes, and memorize what the teacher has told them without ever having the opportunity for class discussion or analysis of material” (Rubin, 1983, p.35 as cited in Myers, Zhong & Guan, 1998, p.243). Huang (2009) discovered that Chinese graduate students studying in the United States and in Canada felt the same about their classes back home – their job as students in their Chinese learning communities had been to “listen to the teacher, take notes when necessary, and learn by heart what the teacher has taught” whereas the North American learning community expects students to participate in class discussions, ask questions and “even challenge the teacher” (p.338).

Cheng and Guan (2012) discovered that American undergraduate students in the U.S. scored higher on three learning behavior variables: raising questions; indication of understanding, and independence in teacher-student relationship compared to Chinese undergraduate students in a Chinese university. On the other hand, they did not find significant difference between the student groups in classroom participation and independent thinking (Cheng & Guan, 2012). They also found the Chinese students scored higher on the structure-oriented learning approach – a holistic approach to learning that focuses on connections between information pieces – while there was no significant difference between the two groups in the depth-oriented approach – a learning style that focuses on in-depth analysis of information from multiple angles and by raising questions. The authors argue that Chinese students are less likely to voice their understanding but they do not view themselves as unwilling to engage in classroom activities or
as less independent thinkers than American students regard themselves (Cheng & Guan, 2012). Thus, Chinese students were found to be quieter in their thinking unlike the American students who voiced their understanding more verbally. Huang (2009) reports that one of her earlier studies of Chinese students studying in American colleges found that they were distracted by the amount of student participation and group work, the lack of notes being written on the board, the fact that their professors did not follow the textbook closely, and the absence of lecture summaries.

The difference in the role of the Chinese teacher and the North American teacher is highlighted in Huang’s (2009) study of four Chinese graduate students, two from an American university and two from a Canadian university, which suggests that North American professors are more “facilitators of learning rather than authorities of knowledge” (p.338). Myers, Zhong and Guan (1998) also report that past studies have noted Chinese culture to hold in high regard instructors “who give structured, information-packed lectures” (p.243). The same authors assert that in the U.S., students view their instructors as effective and engaging if they are more approachable and likeable. Meanwhile, Chinese students perceived that their teachers do not frequently interact with them through informal communication such as small talk, using first names, or discussing personal matters (Myers, Zhong & Guan, 1998). The authors argue that this is due to cultural role reinforcement; Chinese instructors are not expected to engage in such immediacy behaviours that would lower their status to the same level as their students. Overall, Chinese students perceived themselves to be learning more and to be more engaged with the material if instructors used verbal immediacy behaviours such as humour, and most importantly they felt more favourably towards a course and the subject matter if they interacted more with their instructors on academic issues (Myers, Zhong & Guan, 1998).
As the literature focuses on how Chinese graduate students learned in their home country versus in North America, one of the gaps that my research will fill is how high school-aged Chinese and Korean international students frame their learning – how their experience in the Canadian school community is the same and how it is different from their experiences learning in their home countries. For international students from China and Korea who are used to taking notes in class and rarely interacting with their teachers, they will have to adjust to the expectations of the North American classroom. As the Ontario system evaluates students on such learning skills as Initiative, which includes participation in class, these students will need to re-evaluate their role and their relationships with their teachers in Canadian classrooms. This leads into the next portion of this literature review which presents how Asians have been portrayed as a superior minority group and the effects of this view on Asian students’ academic and psychological well-being.

**Asians as the Model Minority**

Stroink and Lalonde (2009) explain that one of the strongest areas of conflict between the Chinese immigrant child’s Chinese home culture and American school culture is the value of, and importance placed on, education. One of the most commonly mentioned traits of Asians is that they enjoy a higher level of academic success than other minority groups and even White people. In their study of Asian American engineering students at a U.S. college, Trytten, Lowe and Walden (2012) found that, in general, participants fully accepted the model minority stereotype “both for themselves and for other As/AsAms [Asians/Asian Americans]” (p.451). Their definition of the model minority stereotype is summarized in the following points:
• "Extremely intelligent: As/AsAms" are perceived as inherently smarter than other racial groups, especially in mathematics and science.

• Hard working (good work ethic): As/AsAms willingly work long hours and are exemplary employees and students.

• High economic attainment and goals: As/AsAms desire monetary stability and upward mobility.

• Seeking educational prestige: As/AsAms see education as the path to success, preferring to study high status professions at elite institutions and attaining high GPAs.

• Uncomplaining about racial issues and problems: As/AsAms passively accept racism and discrimination, choosing to be model citizens that do not complain about inequities.” (p.442)

Lee (1994) asserts that the model minority stereotype of Asians Americans states that this group succeeds academically mainly because of their hard work and their cultural belief in the value of education. Wing (2007) adds that the typical view of Asian students is that they do not have academic failings, they receive support from their parents as well as their ethnic and cultural community to achieve high academic standards, and their parents come from middle-class backgrounds. Essentially, the model minority myth “wholly endorses the American Dream of meritocracy and democracy with the notion that anyone regardless of race, class, or gender has an equal opportunity to work hard and consequently is justly rewarded for their labor through economic upward mobility” (Park, 2008, p.135). The typical model minority view of Asian students includes evidence that Asian students achieve higher test scores in mathematics and the
SATs (standardized test that high school students must write) as well as higher grade point averages compared to other minority groups in the United States and Canada (Li, 2005).

One reason why the stereotype exists of the Asian immigrant student being so hardworking may be attributed to their feelings of responsibility and guilt for their parents’ sacrifices in coming to a new country in order for their children to have better educational opportunities (Lee, 1994; Park, 2008). Park (2008) explains that in all immigrant narratives, “regardless of the immigrant’s country of origin, time of migration, or access to social and cultural capital,” there exist similar stories of hardships about how immigrants have “little or no money, limited English-language proficiency, [endured] physically demanding labor, and social isolation” (p.137). Kao (1995) and Li (2006) highlight the role of parents in the success of Asians students in North America; not only do Asian parents have, on average, more schooling than White parents, Asian parents also have higher (and non-negotiable) expectations of their children (Kao, 1995). They also place greater value on education, are willing to invest more in education and directly intervene in their children’s studies by teaching and tutoring at home (Li, 2006). Although the immigrant story of hardships do not apply to East Asian international students, it is obvious that they do come to Canada with their parents’ high educational expectations; we can infer this from the fact that their parents invest thousands of dollars every year into their Canadian education and their willingness to have their children live separately from the rest of their family for months at a time.

For Asian families, the role of the parent as provider and child as subservient is clearly outlined and rigidly fulfilled (Kao, 1995). Having children who grew up in Chinese homes in which their parents were passionate about their children’s education and had high expectations of them resulted in students who were “generally motivated to pursue excellence” (Li, 2001, p.482).
Furthermore, there exists an “intense push for economic and social stability by immigrant parents” as “a direct reaction to the daily insecurities and stresses that plague new immigrants as they endure a marginal existence” (Park, 2008, p.138). For East Asian international students, once they arrive in Canada it is possible that they do not live with the same level familial support that they were used to back in their home countries. Since many East Asian international students stay with homestays who are white families, they may find their new home life to be very different from what they were used to in their home countries (Popadiuk, 2010). The East Asian international student may have to transition from a very rigid home structure where studying is expected to be the first priority to a place where they have freedom to do what they want without parental supervision. This transition means that these students “learn to renegotiate their family relationships back home, often shifting from dependent children to young adults learning to take care of themselves” (Popadiuk, 2010, p.1541). This change in environment must play a big role on how international students fare when they study on their own in Canada (Popadiuk, 2010); the home life structure may no longer play as large a role in their academic success while they are in Canada or may even negatively affect their studies as they struggle to get accustomed to new customs and traditions with their homestay families. By exploring the effects of the homestay life on these students’ discourses on family relationships, I will be adding to existing studies of international students’ experiences and challenging the model minority myth.

The main reason that the model minority view of Asians is detrimental is that it allows the homogenization of a group of students who are individuals with individual successes and challenges. Perpetuating the model minority myth “merges all Asian groups together and erases profound historical, cultural, linguistic, and economic differences between and within groups” (Diangelo, 2006, p.1994). Additionally, “deviation from the model minority ideology implies
not only a moral shortcoming due to their own individual failure, but also separates them from the American norm, thereby reinforcing their foreigner status” (Park, 2008, p.136). Lee (1994) explores four groups of Asian students to show that “Asian Americans do not see themselves as being the same, they do not share a common attitude regarding future opportunities, and they do not share a common attitude toward schooling” (p.428). She determined that there were some Korean students who tried to excel academically to fit in with their white middle-class peers, another group (the new-wave Asian students) who rejected the notion of doing well in school and instead focused on forming closer co-ethnic groups for support, and still others (the Asian American students) who forged a new identity based on both their Asian and American experiences (Lee, 1994). Even at the same school, these Asian students all had different experiences; this was evidence of the fact that the model minority myth of Asians is outdated and overgeneralizing.

The model minority view that all Asian students do well in math is refuted by the different academic achievement levels between Asian ethnic groups (Kao, 1995) as well as within groups (Lee, 1994). Zhao and Qiu (2009) summarize why the model minority myth is hurtful to Asian students:

“They mask the many problems Asian students encounter in school and society.
They justify overlooking the many Asian students who do not fit the stereotype.
The myths hurt other minority groups. They are used to deny racism – if the Asian can do it, then race is not a factor in America, so the logic goes. The myths also can hurt education in general as the Asian way of education is imitated – evidenced by the growing popularity of different versions of cram schools in the
U.S. and praise for the Asian education system by American education leaders – without consideration of its negative consequences” (p.339).

They argue that treating Asian Americans as a homogeneous group adds value to the claim that “race matters more than effort” (Zhao & Qiu, 2009, p.341). They argue for the need to treat students as individuals and attend to their needs differently because “the nature of a student with high academic achievement is certainly different from those with low academic achievement. Similarly, a student burdened with overly high expectations for academic performance should be treated differently than a student who has too little family support or suffers from low expectations” (Zhao & Qiu, 2009, p.343).

Diangelo (2006) shares a similar belief that the model minority stereotype serves to elevate the status of Whiteness by grouping together Asian students and “render[ing them] invisible, and dismissed, all under the pretext that this is an Asian cultural preference” (p.1994).

In Wing’s (2007) view, the model minority myth denies that low-achieving Asian students even exist because it spouts the belief that Asian students are “culturally or genetically predisposed to do well in school” (p.482). According to Li (2005), the myth is damaging to those students who are lower-performing academically as it prevents teachers and schools from providing these students with the support they need. In Popadiuk’s (2009) interviews of high school international students from China, Korea and Japan, there was evidence that “teachers began assuming [the international students] could understand everything that was happening in their academic work, even when they could not, which led to feeling blamed and inadequate” (p.239). Trytten, Lowe and Walden (2012) agree that the “the hard-working and intelligent facets” of the model minority stereotype can result in staff and other students to hold Asian students to higher standards.
With the increase in the Asian population in Canada, researchers have started to realize more and more that there are now Asian students who come from a wide range of cultural, political and economic backgrounds, which affects how they are viewed by teachers and other community members in light of the model minority myth (Li, 2005). In spite of the support for the model minority view of Asians being inaccurate, the belief of the superiority of Asian students in math classes continues to be perpetuated in Canadian high school classes today. By continuing to disseminate the model minority stereotype, we fail to “look at the critical role school and societal factors” play in Asian students’ academic achievements or lack thereof (Li, 2005, p.75). Another negative consequence of the model minority stereotype is that Asian students may be pressured into pursuing careers that are not aligned with their true interests (Trytten, Lowe & Walden, 2012). The results of Trytten, Lowe and Walden’s (2012) study showed that while the participants claimed the model minority stereotypes were not true for themselves or for other Asian students, at the same time they reported experiences that were in line with facets of the stereotype. The participants, in fact, perpetuated the detrimental quality of the model minority stereotype by expressing “both their general belief in racial equality and meritocracy and their hegemonic socialization towards the positive aspects of the stereotype” (p.457). By exploring this issue further through my study, I hope to add my voice to those that claim Asian students deserve to be heard and treated as individuals and in particular to advocate that the needs of East Asian international students at the high school level must also be recognized.

In the following section I will discuss equitable mathematics education, how Asian students have been factored into this discussion of equitable math teaching, and the importance of language teaching in math classes.
Minority Students in Math Class

Since mathematics is a gatekeeper to many college and university programs as well as future career paths, students’ success in mathematics often determines what they can and cannot pursue in the future, which explains the important role that this subject plays in these students’ academic careers and identity formation. According to Gutiérrez (2007), equitable mathematics strives to meet the goal of being “unable to predict student patterns (e.g., achievement, participation, ability to critically analyze data/society) based solely upon characteristics such as race, class, ethnicity, gender, beliefs, and proficiency in the dominant language” (p.41). Three ways in which to reach this goal include: 1) “get marginalized students to identify with ‘dominant’ mathematics”; 2) “develop a critical perspective among all students about knowledge and society in ways that ultimately address (3) a positive relationship between mathematics, people, and the globe” (p.38). Since mathematics achievement serves as a “gatekeeper” to successful employment and upward mobility (Lubienski, 2007; Walker, 2003), it is crucial for minority students to achieve high levels of success in the subject area. Due to the view of minority students as deficient in discussions of academic success, fewer black and Latino students enroll in advanced high school math classes compared to Asian American and white students (Walker, 2003). According to Gutiérrez (2002), high school teachers do not sufficiently understand the significant role of students’ ethnic or linguistic experiences in the teaching and learning of mathematics.

The effect of equating students’ perceived participation in racialized cultural communities with their academic success is apparent in Dei, Mazzuca, McIsaac and Zine’s (2004) interviews of Black high school students during the destreaming period of grade 9 students in
Ontario schools. These students felt that teachers were biased against them by equating their Black identities with lower academic success; furthermore, Black students were discouraged from wanting to continue studies at higher streamed levels as they felt singled out for behaviours that were similar to those of their White counterparts (Dei et al., 2004). The impact of students’ own beliefs of how they are perceived as representing their race is evident in the way that minority students may not want to speak up in math class for fear of badly representing their minority group (Walker, 2003). On the other hand, Martin (2007) shows another side of the argument; rather than racial and ethnic identities hindering math learning, he argues that such boundaries can act as “motivators to pursue mathematics knowledge and meaningful participation” when “put in the context of liberation and freedom” (p.157). The marginalization of racialized groups of students and the characteristics attributed to them based on their membership in racialized cultural communities reinforces the need to focus on how to deliver equitable instruction, particularly in the subject of mathematics. The emphasis needs to be on creating critical thinkers who study and question why certain mathematics is learned, who it oppresses, and how power structures in society can be changed.

In order for equitable math learning to take place, students need to see themselves reflected, even occasionally, in the curriculum and in instruction (Gutiérrez, 2008). Furthermore, the home culture and community knowledge needs to be brought into the classroom so that students see their home identities and academic identities as existing in the same realm (Civil, 2007). Equitable mathematics instruction also needs to be able to cater to students’ individual identities and provide “relevant and useful education” to students’ individual pursuits of happiness” (Gutiérrez, 2007, p.46). Educators need to “focus on a range of issues including (1) students’ long-term aspirations, (2) their commitment to learning in school and in their
mathematics classes, and (3) their assessments and explanations of other students’ commitment to and perceptions of the benefits of succeeding in school and in their mathematic classes” (Cobb & Hodge, 2007, p.167-168). Lubienski (2007) recommends that schools cater to lower socioeconomic status students by making sure they get “the best teachers, the richest mathematics curriculums, the smallest class sizes, and the most careful guidance” (p.58). Most importantly, equitable mathematics education needs to take into account students’ identities as participants in various communities that greatly affect what they want to learn and what they need to learn from the study of mathematics (Martin, 2007). Essentially, educators need to take the time to understand their students as individuals and consider following a reform model of a classroom that honours diversity of students’ experiences (Gutiérrez, 2002). This statement should also apply to Asian students who are often ignored because they are viewed as excellent math students and overall high academic achievers.

For East Asian students, the expectations placed on them are the opposite of what we typically hear about minority students. Embedded in the model minority view of Asians is the stereotype that they are very good at mathematics. One reason why Asian students are seen as being very good at math is because of the higher level of mathematics education being taught in these students’ home countries. The belief in this difference is highlighted in Li’s (2006) interviews of Chinese immigrant parents, who believed that math instruction in Canada “was ‘easier’ and ‘insufficient’ in content and depth” (p.37). This belief in the lack of practice manifested in these parents providing drill exercises at home and used textbooks and workbooks to assign extra homework at home, practices that could explain Asian students’ higher average math scores (Li, 2006). This strong parental influence and high expectation as factors influencing Asian students’ success in mathematics is supported by Huang and Waxman (1994)
who discovered in their study of a school district in the Central South region of the United States that “Asian students demonstrated greater pride in the classwork, stronger desire to succeed, and higher expectation to do well in mathematics” (Huang & Waxman, 1994, p.14).

Huang and Waxman (1994) studied the cognitive psychological factors they felt affected student achievement in mathematics:

- **Academic Self-Concept** – “the extent to which students exhibit pride in their classwork and expect to do well in mathematics”
- **Achievement Motivation** – “the extent to which students feel the intrinsic desire to succeed and earn ‘good’ grades in mathematics”
- **Involvement** – “the extent to which students participate actively and attentively in their mathematics class”
- **Satisfaction** – “the extent of students’ enjoyment of their mathematics class and school work in mathematics,” and
- **Parental Involvement** – “the extent to which parents are interested and involved in what their children are doing in mathematics” (Huang & Waxman, 1994, p.8-9)

These authors discovered that Asian-American students had higher levels of all the factors than their Anglo-American counterparts. They also previously reported that, overall, Asian students’ enjoyment of mathematics was the key to their success as this enjoyment led them to be more active participants in the learning process than their White peers (Huang & Waxman, 1993).

Furthermore, the same authors found that Asian students maximized their instructional time with teachers by interacting with teachers for instructional purposes rather than about personal issues. While these authors’ findings are in the cognitive psychology field rather than the sociocultural perspective of learning, the findings have implications for how Asian students frame their
learning experiences and in what ways they see themselves as successful, which guided my
discussion with my research participants about their experiences studying in Canadian
mathematics classes.

With such a history of success in mathematics, it is no wonder that the model minority
stereotype paints Asian students as being successful in math regardless of other factors that may
influence achievement, such as language barriers. In spite of studies of English Language
Learners (ELLs) that show the importance of knowing the formal language of instruction in
order to succeed in school, the issue of language is often disregarded when it comes to Asian
students in math classes. Chen and Li (2008) assert that several studies have showed
achievement gaps between ELL and non-ELL students, suggesting language competency affects
math performance; however, it is often ignored that students following the Canadian math
curriculum are expected to be able to describe their solution steps, explain their mathematical
thinking and provide arguments and conclusions, all to communicate mathematical ideas
effectively (Chen & Li, 2008). Educators who view math as a universal language may avoid the
need to specialize language-intensive mathematics instruction for Asian ELL students that would
assist them in becoming more proficient in academic English language use.

Moschkovich (2002) gives an overview of two limited perspectives of bilingual learners,
whom she defines as “students who participate in multiple-language communities” (p.198), in
math classes. The first perspective is one that asserts acquiring vocabulary in the second
language is the most important struggle that students need to overcome when learning
mathematics in a new language. This perspective ignores the expectations of today’s
mathematics classrooms, which have evolved from simple translation tasks such as taking notes
or solving word problems to “explaining solution processes, describing conjectures, proving
conclusions, and presenting arguments” (Moschkovich, 2002, p.193). The author argues that this perspective also ignores the multiple meanings of words and leads to teachers missing “how a student constructs meanings for mathematical terms or uses multiple resources, such as gestures, objects, or everyday experiences” (p.193). The second problematic perspective is one that argues bilingual math students’ main task is to create a mathematics register in order to learn the multiple meanings of words. While this second perspective is preferred to the first as it gives a more complex view of math learning for bilingual students, it still fails to take into account the fact that mathematics Discourse is specific to each mathematics classroom and that the social context of what is stated needs to be taken into account. Furthermore, Moschkovich (2002) argues that everyday register can also be used as a resource rather than a barrier to effectively communicating mathematical ideas.

Moschkovich’s (2002) stance is to use a situated-sociocultural perspective of math learners. Her argument is that learning to communicate in mathematics in a new language goes beyond simply learning vocabulary, but rather it requires “using social, linguistic, and material resources to participate in mathematical practices” (Moschkovich, 2002, p.197). The author asserts that,

“[m]athematical Discourses involve different communities (mathematicians, teachers, or students) and different genres (explanations, proofs, or presentations). Practices vary across communities of research mathematicians, traditional classrooms, and reformed classrooms. However, even within each community, there are practices that count as participation in competent mathematical Discourse” (Moschkovich, 2002, p.199)
She argues that language use in mathematics needs to be studied in its social contexts – that is, “language is not only cognitive but also cultural, social and situated” (Moschkovich, 2005, p.121-122). She gives the example that being bilingual is seen in some societies as a product of a high level of education but in a minority context, for example Latino bilinguals in the U.S., it is seen as a sign of lower socioeconomic and power status (Moschkovich, 2005). She asserts that most bilinguals are not equally fluent in both languages and that if they are not seen as equally fluent then they are labeled as semilingual, or having low level of language competence in both languages, thus employing a deficiency model. Connected to this perception of semilingualism is the notion of code switching – “the practice of using more than one language in the course of a single communicative episode” (p.125) – being a negative result of not knowing enough of one language. Moschkovich (2005) defines language switching as using “two languages during solitary and/or mental arithmetic computation” while code-switching refers to “using two languages during conversations” (p.125). She argues that code switching should not be viewed as a deficiency as it allows some students to use both languages as resources when communicating mathematically and participating in math communities of practice.

It is important that mathematics teaching moves away from the view of math as a universal language because this excuse allows mathematics teaching to ignore students’ cultural and linguistic backgrounds (Gutiérrez, 2002). Li (2005) recommends schools develop curriculum and classes specifically for the needs of ESL students to avoid misplacing Asian students, and other ELL students, in mainstream classes that do not offer the support they need, as well as to train teachers to implement more culturally responsive strategies. Since math is a language in itself that uses specific symbols, syntax, terms, definitions, and school context, it is necessary that teachers focus on teaching the language of mathematics, especially to ELLs
The focus on teaching the language of mathematics is of special importance to East Asian international students, who may be familiar with much of the mathematics content being taught in Canada from their own experiences back in their home countries but struggle with the thinking and communication sections of the curriculum that require a more familiar knowledge of the English language and specific English vocabulary used in mathematics courses in Canada. Once language competency is achieved, however, bilingual students have been found to achieve more success in the subject of mathematics than their peers proficient in only English or only their home language (Chen & Li, 2008). Moschkovich (2005) also asserts that bilingual students are often more proficient than their peers at ignoring misleading language cues in math problems. In order to get away from a deficient model of viewing minority students, Moschkovich (2002) insists that we need to increase our understanding of “what counts as competence in mathematical communication” (p.197). The author argues that examples of competency in most mathematics Discourses include “being precise, […] using representations to support claims, […] being explicit about assumptions, connecting claims to representations, imagining, hypothesizing, and predicting” (Moschkovich, 2002, p.207). Essentially, bilingual students need to practice using mathematical Discourse which involves “ways of talking, acting, interacting, thinking, believing, reading, and writing” in a math context as well as learning about “mathematical values, beliefs, and points of view” (Moschkovich, 2002, p.198).

Teaching ELLs means attending to not only their language needs but also their cultural differences that may create challenges when they are trying to develop their identities in their multiple communities of practice. According to Marks Krpan (2007), the possible challenges that ELLs face include: encountering different kinds of mathematical thinking; using
manipulatives for the first time; being unaccustomed to communicating mathematical thinking or cooperative learning in math class; needing support with acquiring math-specific vocabulary in English or working with multi-step word problems, as well as parents having a different understanding of what math education entails. In order to cater to ELL students’ emotional and language needs, equity-minded math education should create learning environments where “ELLs can be successful at both learning mathematics with understanding and at becoming more proficient in English without sacrificing their home language or culture” (Borgioli, 2008, p.186). Being bilingual should be an asset that teachers use to help students acquire mathematics knowledge, especially in the case of international students who may already have the content knowledge at a specific mathematics level but are facing difficulties in math class due to their language skills and the expectations of their student roles in their new Canadian classrooms.

To assist ELL students acquire English language mathematical vocabulary and competence, Li & Chen (2008) recommend cooperative learning by grouping students with different language proficiencies together, allowing for sharing of varied mathematical viewpoints and developing social skills such as collaboration and participation. Cirillo, Bruna and Herbel-Eisenmann (2010) also recommend cooperative learning in addition to using visuals and manipulatives to help ELLs acquire mathematics knowledge. Moschkovich (2005) believes that we need to consider what kind of math problem is being asked and students’ previous experience with mathematics when they choose to use their first language or English. The author summarizes that students may use their first language when working on a computation problem on their own, then depending on who else is involved in the conversation in the math class the student may translate the problem into another language. If a student has not been exposed to the math topic at hand in their first language, they may just use the language of instruction
Moschkovich (2005). Moschkovich (2002) recommends that an inclusive mathematics classroom allow students to use gestures, objects and their first language as resources for communicating mathematical ideas and solving problems.

Since most East Asian international students would be placed in an English as a Second Language (ESL) class, the role of the ESL teacher is extremely influential in these students’ academic and emotional lives. It is increasingly important that ESL education moves away from the anglicizing and Eurocentric perspective through which it has traditionally been taught. Traditionally, English language education has focused on methodology, which stresses that a pre-established, ‘successful’ method of teaching that is passed from teacher to teacher and context to context is the most important factor of whether language teaching is successful or not (Dogancay-Aktuna, 2005; Bax, 2003; Kumaravadivelu, 2001). In recent years, we have begun to move towards the need to factor students’ sociocultural backgrounds in order to achieve context-specific teaching and honouring students’ experiences (Dogancay-Aktuna, 2005). One way to achieve this focus on multilingualism and cultural maintenance is through intercultural education, which is defined as one that “offers the knowledge, skills, and values to move between and across multiple cultures, with sensitivity to the challenges posed by the need to negotiate multiple cultures and identities” (MacPherson, Turner, Khan, Hingley, Tigchelaar & Lafond, 2004, p.9). By educating students to operate with intercultural competence, we ensure that students are able to “interact with people as complex human beings with multiple identities and their own individuality” (Byram, Gribkova & Starkey, 2002, p.5). The first step is for educators to support all students, both those who are proficient in English and those who need more support. In particular, educators need to treat English language learners as individuals with unique needs rather than a homogeneous group of lower-level learners (Gutiérrez, 2002).
While East Asian international students may not fit into the category of lower-level learners, they still need to be treated as individuals rather than a homogenized group of students. The realities of these international students’ daily lives and backgrounds are not taken into consideration when they are lumped into the group of model minority Asian students. These students are studying in a foreign country, without their families or friends, and without the comforts of their home environment. All of these factors influence these international students’ discourse about their experiences studying in Canada and whether or not they will be as successful in the Ontario education system as they were in their home country. By studying how high school international students fare in the school system, the results can be added to what we know about international students at the post-graduate level to begin attracting students to Canada at all ages. If Canada would like to continue to attract international students, it follows that the recruitment process can start earlier than at the post-graduate level. In order to find out how to design Canadian education with a multicultural perspective and an academic environment that is inviting to international students, it is necessary to further research how these teenaged visa students construct their identities as they participate in multiple cultural communities.

Before I outline my methodology, I will discuss the conceptual framework of my study.

Conceptual Framework

The model minority stereotype portrays Asian as a homogeneous group of people who have achieved success in North American society because of characteristics that are inherent to their race, such as an ethic of hard work and perseverance. This belief is damaging because it disregards individual identities, histories, challenges and abilities (Diangelo, 2006). The framework I will use to approach my research is the model minority stereotype of Asian students,
which I believe needs to be broken down and analyzed. I will explore in what ways this model minority stereotype is challenged by the experiences of these East Asian international students.

Factors that influence international students’ mental and emotional states while they are studying in Canada need to be analyzed in order to create a better experience for these students. One challenge that East Asian international students may face is dealing with racism and prejudice because they “come from home countries where they were part of an ethnocultural majority” (Nilsson, Butler, Shouse & Joshi, 2008, p.153). Other difficulties they may encounter come with the change in language, laws, and cultural norms. Adding to these factors is the pressure to succeed that many of these students may feel from their families; all of these reasons contribute “to why Asian international students do not feel comfortable and to some degree marginalized within the academy” (Heggins & Jackson, 2003, p.385). In order for educators to address these issues, we need to challenge the model minority stereotype of East Asian students in general and East Asian international students in particular.

Park (2008) argues that the model minority myth marginalizes Asian Americans and other minority groups in two ways. The first is by rendering Asian Americans invisible when it comes to discussions on civil rights laws, affirmative action and access to mental and physical health care; the other is by making them particularly visible in order to oppose the interests of other minority groups by explaining that if Asian Americans are successful, other minority groups can be as well. For too long, Asian students have been shifted to the side when discussions surrounding minority education have surfaced. The view that these students do not need help because they are doing just fine, or even better than White students, has damaged Canadian society by denying these students their individual identities and failing to provide low-achieving Asian students with the educational support they require (Wing, 2007). This is
problematic because as Canadians, we cannot tout an educational system that is equitable if true equity is not being achieved.

In order to move toward a more equitable education system, I have examined the experiences of five East Asian international students to find where their voices are being silenced and in what ways, and where their values and experiences are being honoured and in what ways. My particular interest lies in their experiences in the mathematics classroom because I question the “racial profiling” that stereotypes all Asians as naturally good at math (Wing, 2007). I take the stance that some East Asian international students will do well in mathematics classes, just as some students of all racial and ethnic cultural communities do well in mathematics classes. When East Asian international students do not feel that they live up to a certain standard in the mathematics class, I want to know how they view themselves and how they frame their experiences studying in Canada. Wing (2007) speaks of Asian students in the following quotation:

“[T]heir stories hold policy implications for teachers, counselors, school staff, social services, and government. There is a need to recognize that many Asian students are in need of support services; that they are virtually absent in the curriculum; that they have much in common with other students of color; and that their voices ought to be fully included in any dialogue or plan of action at the high school and college level with regard to issues of diversity, race relations, school reform, and multicultural teaching and learning” (p.482).

The statement can be applied not only to Asian students in general but to East Asian international students in particular who also have a place in the Canadian education system as full participants.
The key now is to analyze in what ways they believe their full participation is being denied, if it is, and to explore what educators can do to challenge the existing stereotypes.

The interviews that I conducted have revealed the discourse of these international students on the topic of their experience studying in Canada. Mills (2004) gives an overview of the structures that Foucault asserts are intrinsic to discourse: the episteme; the statement; the discourse, and the archive. The episteme is “the sets of discursive structures as a whole within which a culture formulates its ideas,” including the “range of methodologies which a culture draws on as self-evident in order to be able to think about certain subjects” during that specific time period (p.51). Statements, which are “utterances which have some institutional force and which are thus validated by some form of authority” (p.54), are grouped into different discourses or discursive frameworks that form epistemes. Discourse as a whole is the “set of rules and procedures for the production of particular discourses,” which are “sets of sanctioned statements which have some institutionalised force, which means that they have a profound influence on the way that individuals act and think” (Mills, 2004, p.55). An archive is “the set of discursive mechanisms which limit what can be said, in what form and what is counted as worth knowing and remembering” (p.56-57).

According to Cherryholmes (1987), “[t]he rules of a discourse govern what can be said and what must remain unsaid. Its rules identify who can speak with authority and who must listen” (p.301). Mills (2003 and 2004) summarizes the internal regulators that Foucault deemed keep discourses certain discourses in existence and determine who has authority to speak on a topic. The effect of such internal regulators is that in a specific time period, only a specific type of discourse is produced; that is, discursive practices are not truth statements that could stand alone and detached from the social, political and economic state or history of the time setting that
produces them (Cherryholmes, 1987). Discourses are sets of authorized statements that influence how people act and the way they think; such discursive structures are what we use to interpret what we believe is real and truth, and both institutional and cultural forces influence discursive structures (Mills, 2004). According to Cherryholmes (1988) and MacLure (2003), Foucault’s work on discourse asserts that power is both reductive and productive in that it restricts what can be said and by whom but at the same time it produces knowledge by creating those discourses that are circulated at that time period. Gérin-Lajoie (2008a) cites Voithofer and Foley (2007) in asserting that institutions regulate discursive formation by positioning people through regulated “truth” statements that then turn into policies and dispersal of resources into certain areas.

MacLure (2003) summarizes the poststructural notion of discourse:

- “‘Realities’ are discursive; that is, there is no direct access to a reality ‘outside’ discourse.
- Language is not ‘transparent’: that is, it is not a neutral medium or vehicle for providing access to the world, or to thought.
- People are ‘made subjects’ through their involvement as speaking subjects within discourses.
- The self is therefore ‘decentred’: instead of the self-actualizing individual conceived of in humanist philosophies, selves are multiple, fragmented and ‘subjected’ to the constraints of discourse.
- Power, knowledge, truth and subjectivity are interlinked and produced in/through discourse.
- Language is never innocent.
• Ambiguity, uncertainty, irrationality and indeterminacy lie ‘at the heart’ of meaning, reason and truth” (p.180-181).

Gérin-Lajoie (2008b) points out, when discussing the integration of diversified student population in schools, the problematic nature of the official discourse. On the one hand, it touts that “all cultures are equal in Canada and as such should be respected and celebrated in the context of the linguistic and cultural duality of the country” (p.109) while on the other hand the attention in education has shifted to focusing on “school achievement, accountability, and teachers’ professionalization” (p.110). Through these participants’ discourse, she concluded that policy makers and stakeholders need to do more to understand minority students’ social contexts and backgrounds rather than seeing them as deficient or merely individualizing their problems.

Through the discourse of these students, I have gained some insight into how they frame their experiences as international students. I heard some contradictory statements as well as statements that unify into a cohesive thought and indicated some commonality in their experiences. Their discourse also revealed how these students view themselves and what this view has in common with and is different from the model minority myth. It would not be possible to conclude that these students’ lived experiences are what constitute their one true identity; as McAdams (2001) explains,

“[i]n that postmodern lives are always in flux and in that no single story can possibly bring together the many different and everchanging features of postmodern life, it would be naïve to think that each person crafts an unproblematic and self-consistent grand narrative that organizes his or her entire life into a pattern of perfect unity and clear purpose” (p.116).

In the following chapter, I will outline the research methodology that has been used for my study.
Chapter 3: Methodology

Qualitative Research and Using Interviews

Qualitative research has been an established practice for decades whose main goal is to study things in their natural settings and then to make or create sense of the observed events through interpretation (Denzin & Lincoln, 2011; Kincheloe & Berry, 2004; Denzin, 2004). Qualitative research is all about representing the world through many viewpoints, using such empirical materials as personal experiences, interviews, artifacts and observations to name a few (Denzin & Lincoln, 2011). Its goal is to produce a multivoiced text that allows room for the interpretation to be made and affected not only by the researcher but also by the people under study (Denzin, 2004; Gubrium & Holstein, 2001).

The qualitative researcher is viewed as many different things. One role is that of a bricoleur, or a quilter who “stitches, edits, and puts slices of reality together” in order to bring “psychological and emotional unity to an interpretive experience” (Denzin & Lincoln, 2011, p.4-5). The researcher quilts an image of the world in order to examine the world as a relationship between parts rather than as separate pieces that act on their own; among the many considerations that bricoleurs must keep in mind, the most important is the acknowledgement of how “the researcher’s preferences and assumptions shape the outcome of the research” (Kincheloe & Berry, 2004, p.6). Furthermore, bricoleurs understand and try to change the power structures that surround what is deemed as knowledge and what data is privileged over others because of the specific academic or political sources (Kincheloe & Berry, 2004). In many instances, qualitative research calls for multiple methods and makes meanings through various
representations rather than following a single, rigid, standardized research procedure (Gubrium & Holstein, 2001; Kincheloe & Berry, 2004; Denzin & Lincoln, 2011).

There are several criticisms of qualitative research, most of which stem from the differences between qualitative and quantitative research. Qualitative research is viewed as a soft science by the positivists who believe in an absolute truth or a “value-free objectivist science” (Carey, 1989, p.104 as quoted in Denzin & Lincoln, 2011, p.2). Qualitative researchers emphasize that there is no such thing as absolute truth, even in quantitative research or science (Denzin & Lincoln, 2011). Most qualitative researchers recognize that

“[a]ny gaze is always filtered through the lenses of language, gender, social class, race, and ethnicity. There are no objective observation, only observations socially situated in the worlds of – and between – the observer and the observed. Subjects, or individuals, are seldom able to give full explanations of their actions or intentions; all they can offer are accounts or stories about what they did and why. No single method can grasp the subtle variations in ongoing human experience” (Denzin & Lincoln, 2011, p.12).

It is through these subjective observations and writing that one interpretation of the world will be produced, which is the aim of all qualitative researchers. My own research does not claim to have produced an all-knowing view of what all East Asian international students experience while studying in Canada. My aim was to help make meaning of a group of students’ discourses on their experiences studying in Canada through interviews, specifically semi-structured interviews.

In order to get a sense of these students’ identity formation as East Asian international students and math doers at this time in their lives, I have gathered the stories of their lived
experiences through the interview process. According to McAdams (2001), the psychology of telling one’s story “reflect[s] cultural values and norms, including assumptions about gender, race, and class” (p.101). These students’ experiences at this point in their lives would be a different story than they would tell during their years before coming to Canada; thus, I was able to gain insight into how these students viewed themselves and formulated their current identities.

As McAdams (2001) states, “[a] person’s evolving and dynamic life story is a key component of what constitutes the individuality of that particular person, situated in a particular family and among particular friends and acquaintances (Thorne, 2000) and living in a particular society at a particular historical moment (Gregg, 1991)” (p.101).

Through listening to these students’ lived experiences, I gained some insight into their self-concept, which McLean, Pasupathi and Pals (2007) define as “conscious beliefs about the self that are descriptive or evaluative” (p.263). Similar to McAdams’ definition of life stories, these authors argue that the telling of stories “develops and maintains both the life story and self-concept” (p.263); the life story is “an extended but selective autobiography of personal experiences and interpretations of those experiences that provides unity and purpose to the person” (McLean, Pasupathi & Pals, 2007). They “use the term situated stories to emphasize the fact that any narrative account of personal memory is created within a specific situation, by particular individuals, for particular audiences, and to fulfill particular goals” (McLean, Pasupathi & Pals, 2007, p.262). They argue that, “at a broader level of analysis, it is important to recognize that people have profoundly different ways of organizing and processing experience. These ways of organizing experience reflect personality traits as well as goals, schemas, and differences in cognitive orientations, such as ego development” (p.270). Just as the definition of identity is not fixed as it was in the traditional sense of the word, the postmodern approach
suggests that narratives about oneself are complex, contradictory and always changing (McAdams, 2001).

The main method through which meaning is made is through conversation between the interviewer and the people under study (Gubrium & Holstein, 2001; Merriam, 1990; Denzin & Lincoln, 2011), and the purpose of interviewing is to gain another person’s perspective (Patton, 1980, Merriam, 1990; Denzin & Lincoln, 2011). Rather than the qualitative researcher being the sole meaning-maker, interviews allow the respondents to also take part in the narrative and meaning-making process (Gubrium & Holstein, 2001, p.88). Qualitative interviews were the method of choice for my particular study since my goal was to “[establish] common patterns or themes between particular types of respondents” (Gubrium & Holstein, 2001, p.85).

Interviews range on a spectrum from highly structured to open-ended formats (Merriam, 1990, p.73). Highly structured interviews would involve predetermined questions and question order; usually this type of interview structure is used for a large sample size, when the hypothesis has already been formulated and now will be tested, or when quantity of results matters. In unstructured interviews, there are no pre-selected questions as the interview is exploratory – the researcher does not yet know anything about the phenomenon and, thus, does not know what questions to ask. This method of interviewing is rarely used as the sole means of data collection since it is difficult to make connections between the data that has been obtained in such a disjointed manner (Merriam, 1990). In between the highly structured and completely unstructured formats is the semi-structured interview, an interview format that allows for a list of guiding questions or topics but does not demand exact wording or order of questions. The semi-structured format encourages certain information be gathered from all participants but at the same time allows for new insights and information to come naturally from the interview subjects
themselves. The semi-structured interview method allowed me to follow a line of questioning that I had in mind with my participants but at the same time did not limit me so much that I ignored what they told me about their experiences.

The purpose of these interviews was to understand these international students’ sense of selves as they constructed their identities through the telling of their stories. McAdams’ (2001) view of identity construction through stories is that “individual life stories reflect cultural values and norms” (p.101); through the interviews, I have gained a sense of what these students valued and their discourse on their experiences as international students. As these students are living in a particular scenario – in a foreign country, without their family or friends around – that is very different from what they were used to in the previous years of their lives, the stories they tell of their experiences will be a key component of their identity at this time in their lives. Through the gathering of “conscious beliefs about the self that are descriptive or evaluative” (McLean, Pasupathi & Pals, 2007, p.263), I have gained some insight into these students’ identity formation at this time in their lives as East Asian international students and mathematics doers.

In the following sections, I will outline my empirical study, including participant selection criteria, interview topics and procedure for analysis.

Empirical Study

The focus of my research was to examine the discourses of five East Asian international students on their experiences in their mathematics classes in an urban setting. While there are studies of international students at the post-secondary level, little research has been done at the secondary school level to describe how these students negotiate their participation in a new community without the physical support of their friends or families, an experience that is often
exacerbated by the fact that these students are English Language Learners, or ELLs. If these students are aware of the model minority stereotype or are subjected to it during their stay, this is another factor that may affect how they construct their identities as East Asian international students studying mathematics. The potential direct benefits to the participants from their involvement in the project was the chance to reflect on their experiences and to vent any frustrations, fears, challenges, and successes that they may not have had a chance to discuss with their family and friends. The potential benefit to the education community is knowledge about how international students experience their time in Canada; this is crucial as Canada cultivates its reputation as a diverse, multicultural nation and continues to draw in international students to academic institutions both at the high school and post-secondary level.

The major question that helped frame my research was, how do participants talk about their experiences in high school mathematics classes in an urban setting? I chose the site of the mathematics classroom because the model minority stereotype of Asian Americans paints a view of these students as being successful in mathematics classes regardless of other factors that may influence their roles as students, such as their home lives, language abilities or past educational history. In particular, I wanted to learn from their experiences as to how they perceive themselves in the math classes and how they perceive others view them as mathematics doers. If these students are successful in the math class, is it viewed as just a product of their ethnicity rather than their hard work? If these students are not successful in math class, do they then believe themselves to be a failure as an international student, as an East Asian student, or as both? As Heggins and Jackson (2003) explain in the case of Asian international students at the college level, they face “pressure to succeed academically [which] stems from their culture as well as family influences. This form of pressure can be quite overwhelming for Asian international
students, particularly when they are dealing with adjusting to the campus climate” (p.386). I would like to build on existing studies of Asian international students to include how East Asian high school students deal with this pressure while adjusting to the climate of a different home environment at a younger age. Heggins and Jackson (2003) found that Asian international students at the post-secondary level developed strategies to become successful students over time. My goal was to get an idea of how East Asian international students at the high school level achieve their academic goals and how their experiences studying in Canada influence their formation of identity at this time in their lives.

Participant Recruitment and Selection

In order for the qualitative research to be meaningful, the participants should be those “who understand the culture but [are] also able to reflect on it and articulate for the researcher what is going on” (Merriam, 1990, p.75). The criteria that I chose were specifically created to ensure that interviewees would be able to actively participate in the meaning making process by expressing “thoughts, feelings, opinions, [and] his or her perspective” (Merriam, 1990, p.76).

The first criteria was that all participants had to be of 16 years of age (in grade 11) or older so that they are at a certain level of metacognition where they are able to distinguish between their schooling experiences, and in particular their experiences in math classes, in their home country and in Canada. Participants had to be international students from China or Korea and at least in ESL level DO in order for there to be enough conversational ability for the interviews to take place without a translator. Another criterion was that students had to be living with homestays as I was particularly interested in the effects that living away from a comforting,
traditional home environment has on these students. As these students are not living with their parents, I wanted to discuss if their parents’ teachings still influenced their decisions of how to spend their time and what priority to give their studies. Another condition was that students had taken or were currently taking one math course in a Canadian high school. The final criterion that I set was that at the time of the interview, students should have been in Canada for at least one year prior; thus, they were able to answer reflectively as they compared their experiences in their home country and in Canada, as well as to discuss the changes they have noticed in themselves over the past year. Although East Asian international students generally come from affluent families who have not suffered insecurities or economic hardships, they may still feel the same push for economic and social success, evident by the fact that they are trying to get an international education to compete in a global society; my goal, through these interviews, was to discover to what extent the weight of money and parental expectations influence these students’ experiences during their time in Canada.

All five participants that I recruited met the age criteria and all of them were from China or Korea; one student clarified that she was from Taiwan, which I included as part of China. All five participants were in ESL level DO or higher. Four of the five participants were living with homestays – strangers that they met when they arrived in Canada. One participant was living with her aunt and uncle; I accepted this condition since she was still living away from the home environment that she was familiar with as her aunt and uncle had lived away from her, in Canada, all her life. Out of my five participants, only one had been in Canada for less than a year; I decided to include her experiences because she was able to give a fresh account of the differences she felt between her life in China and life in Canada. All five participants had taken at least one math course in their Canadian high school.
I used my connections as a teacher in a school board just outside the Toronto metropolitan area to recruit participants. Being a member of a smaller network of administrators, teachers, education assistants, settlement workers, and community liaisons from around my school board, I advertised my study to the members of this network of teachers and other school board staff, many of whom teach and interact with East Asian international students. In addition to approaching colleagues, I submitted a request and was granted approval to conduct research in School Board B, a public school board in the Greater Toronto Area. I drafted an advertisement that outlined the research and the criteria for participants and sent it to three schools in School Board B with a high concentration of East Asian international students so that interested participants could contact me directly via e-mail. Three students contacted me; two of them ended up participating in the study as one of them did not reply to my response e-mail.

My original goal was to obtain up to ten participants to study. I believed ten would be a good number because the amount of interview data would not be so much that it would get impossible to code the data, catalogue it and analyze it. At the same time, ten is not too few to detect a pattern in their experiences. However, I managed to recruit just five participants after months of attempting to contact international students through both personal connections and through teachers at School Board B. One reason for the lack of participation was perhaps because the pool of potential participants was small to begin with; not every high school accepts international students, and those that do have limited space for these students. Furthermore, I was unable to go to the school in person as I am myself a full-time teacher, thus I was not able to recruit participants by describing my study to the students and answer any questions they may have had in person. Another reason was the labour talks that were happening at the time. During the recruitment process, there were labour issues between the Ontario Secondary School
Teachers’ Federation (OSSTF, the public high school teachers’ union) and the Ontario government; there were talks of strike action and at one point, all extracurricular activities were cancelled and any activity not explicitly outlined as part of teachers’ duties were restricted.

Being cognizant of the labour issues as I am myself a member of the OSSTF, I had to approach the subject of recruiting participants very carefully as it required teachers to do something beyond their specified duties. Due to these factors, it was difficult to recruit more participants than the five that I had.

The Interviews

Interested participants were e-mailed a form that requested sociodemographic data, including their status in Canada, the relationship they have with whomever they are currently living with (homestay or relative), their birthdate, what gender they self-identify, where their home country is, what level of English course they were currently taking or completed to date, and what mathematics course they were currently taking or completed to date. One purpose of the form was to determine inclusion and exclusion of participants. It allowed me the opportunity to ensure that students who are participating in the study understand the criteria used to select them. Any students that did not fit the criteria were notified and their form was destroyed.

I set up an interview time with the students via e-mail or text message. As I met two of the students on a Saturday, I was unable to interview them at their school site; thus, we met at the public library and I held the interviews there. For the three other participants, they expressed preference to meet outside of school so I interviewed them at a coffee shop. Each interview took between fifty and seventy minutes. At the start of every interview, I explained to the participants
that I would be recording audio data in order to fully transcribe the interview verbatim at a later time. During the interviews, I took some notes of the main ideas that come up but focused more on maintaining the conversation. I used a semi-structured interview method where the general questions were written but exact wording was not the focus; this was so that I was able to “respond to the situation at hand, to the emerging worldview of the respondent, and to new ideas on the topic” (Merriam, 1990, p.74).

As a Korean Canadian immigrant educated in the public school system and currently teaching in a public school board in the Greater Toronto Area, I was aware that my own experiences may influence the direction of the interviews. I tried to be careful not to assume that I knew the answers to the questions that I asked my interviewees, as well as keep an open mind and not assume that because I am Asian I was somehow privy to their emotions. I tried to avoid grouping my experiences with these students’ experiences and instead tried to hear what they had to say without my prejedgments clouding their words.

One topic that was discussed during the interviews was the differences between these students’ school lives and routines back in their home country compared to their experiences in their Canadian high schools. We discussed how these students felt about coming and living to Canada, including what were their reasons for studying in Canada. We conversed about the differences these students noticed between their lives back in their home countries and their lives in Canada – how their daily routine in and out of school changed and how they fared in their Canadian high schools compared to back home. The interviewees told me about their feelings toward their homestay families and what it was like to live so far away from their parents. We moved on to discussing the importance of mathematics and what role the students saw the subject playing in their future studies and career paths, and they compared how their math class
routine and success in mathematics were affected with their move to Canada. Then we explored the model minority myth, what these students had heard about the myth and whether they felt it applied to them. The students talked about their experience of having to learn and use English in an academic setting, as well as the importance of knowing English fluently to their future aspirations. Finally, I asked the students about their feelings about being international students and the various aspects that they had to deal with – the financial side of studying as Visa students, the change in their relationships with their parents, and future plans to continue their studies internationally. We concluded the interview with the students telling me their final thoughts on being international students and why they would or would not recommend the experience to future students.

At the start of the interview, I emphasized to these students that I would be asking clarifying questions or follow-up questions and that as much detail as possible would be appreciated. I tried to be very conscientious of being “neutral and nonjudgmental” in order to “minimize gross distortion” of the perspectives presented by the interviewees (Merriam, 1990, p.75).

Analysis

Once the interviews were over, I typed the transcription of the audio-recorded interviews verbatim and then coded them. Coding is the process of attaching key words to sections of the interview text that will help in “identifying and reordering data” (Coffrey & Atkinson, 1996, p.29). Coding allows for summarizing data in order to establish links between concepts in a meaningful way that will lead to theory and framework creation (Coffrey & Atkinson, 1996;
Saldaña, 2009). During the first round of coding, open coding takes place, which Strauss and Corbin (1990) describes as a process to break the data to identify categories into which the data could be sorted. During this first round of coding I read through my interview data and assigned short phrases to interview lines that would later help me identify where else in the interviews similar incidences were coded. The second round of coding is called axial coding, which reorganizes the data by “making connections between a category and its subcategories” (Strauss & Corbin, 1990, p.97 as quoted in Cresswell, p.290). Through the second round of coding, categories are conceived by grouping together codes that share similar characteristics and discussion points (Saldaña, 2009). This was when I conceived the ten categories into which I grouped my codes and that I later used for my analysis. Through analysis of the relationships between the categories, thematic concepts are created and turned into theories (Saldaña, 2009).

There are three models of coding methods – closed, open, and mixed. A closed coding model is used when all codes are predetermined before analysis, while an open coding model is when the codes are born entirely from the data. The method that I used was mixed model coding where some of the codes were predetermined by me prior to the analysis, while other codes came from the data. I first coded the data that reflected my direct conceptual interest (Coffrey & Atkinson, 1996, p.36), such as “relationship with homestay family” and “differences between school back home and school in Canada.” The rest of the codes were emerging codes that “come more or less directly from the [interviewees’] words” (Coffrey & Atkinson, 1996, p.36), such as “clarification needed for English.” This mixed model method of coding allowed for flexibility as I analyzed the data and provided a more participant-centred focus on the data. By attaching codes to the segments of interview data, I was able to examine similarities and differences between participants’ experiences, and in particular, take the similar instances and put them
together in an analysis of the emerging patterns. Most importantly, coding allowed me to move from organizing the data to interpreting it meaningfully by studying the implied “systematic relationships among categories and concepts” (Coffrey & Atkinson, 1996, p.47). In order to avoid data loss, I was particularly conscientious to not use coding to reduce data but rather to “explore how codes and categories relate to the original data, to other data, to theoretical ideas, and so forth” (Coffrey & Atkinson, 1996, p.46). Although my own experiences as an East Asian student who enjoyed mathematics classes and excelled in them in high school would undoubtedly affected process of analysis, I also attempted keep in mind that my participants’ views could be very different from mine simply because of the time period as well as the conditions under which they are studying in Canada. I tried to keep in mind these differences, as well as similarities, and not to present a narrow view of their experiences.

During the second round of coding, I collected my codes into ten categories, which I then grouped into two main themes – the changes in the academic part of these students’ lives, and the other aspects of their lives that changed with their move to Canada. These two themes answer my main research question about the experiences of these East Asian international students in high school math classes in an urban setting. The next chapter outlines the context of the study and gives a description of the five students I interviewed before delving into the results of my analysis.
Chapter 4: Context of Study and Student Portraits

Context of Study

According to the Government of Canada, in 2012 alone there were more than 100,000 international students accepted for study (Citizenship and Immigration Canada, 2012). According to Cudmore (2005), the top two Asian countries that send students to study internationally at the college/university level are South Korea and China. This figure is in line with Statistics Canada’s statement that “Asian students have consistently accounted for the largest share of international students […] to reach 52.7% in 2008” (A Changing Portrait of International Students in Canadian Universities, 2011).

Three of my five participants studied in School Board A, where the tuition fee for high school students ranged from $13,000 to $14,250 per year (School Board A, 2011d). Students who are able to arrange a place to stay – for example, with other family members or people they know – do so and also arrange their own custodianship. However, many international students do not have families living in Canada; these students live with homestays, people who agree to provide students with a room and three meals a day, among other basic living needs (School Board A, 2011c). Homestay families are chosen by the school board among applicants; these families are school board employees or just community members. In School Board A, students apply to have the school board set up their homestay and legal guardianship for them; in such instances, the students are appointed one school board employee as their legal guardian who is responsible for all such students. Their homestay family is not their legal guardian but they have the ability to sign permission forms and given consent for school activities. Out of the three participants who attend school in this board, two of them take part in this homestay program and

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thus pay an additional $9,000 to $9,450 for the duration of the year (School Board A, 2011d). The third student arranged for his own homestay and did not reveal how much he paid in homestay fees. In School Board B where the remaining two participants study, the tuition fee for a full year of study is $13,500 (School Board B, 2013a). There is no board-maintained homestay program; thus, international students are expected to arrange for their own homestay arrangements as well as proof of medical insurance (School Board B, 2013b).

International students who choose to live with homestay families do not have a pre-existing relationship with their homestay families, who may be of a different cultural background than the students. In other instances, students and their families may research their own homestay through resources such as the Internet, or in one student’s case in this study, an agency that takes care of finding homestays for international students. These students would pay the fees directly to their homestay. The homestay family takes responsibility for getting students to school; both School Board A and School Board B specify that even if the school that the student attends has a bussing program, international students cannot take the school bus. Thus, either the homestay family assumes responsibility for these students’ transportation to and from school or the students must find their own way either by taking public transportation or, if they are lucky to be living at a homestay close to their school, by walking. As these international students are not living with their relatives, they must adjust to new household norms while also negotiating their new roles in their Canadian school environments.

Both school boards require international students to write an English language proficiency test to determine what level of English they speak, read and write; this allows the school board to place these students in level-appropriate classes, ranging from limited to no English skills at all, level ESL AO, to proficient in English around a grade 9 level, ESL EO. In
some cases, students may be placed directly into a mainstream English class. In School Board A, 
students are required to write a mathematics proficiency test as well (School Board A, 2013a). 
As all of the documents for application to study in Canada are written in English, a certain level 
of proficiency in the language is assumed on the part of the applicants and their 
parents/guardians. While most high schools offer an English as a Second Language program, 
one school in School Board B accepts international students but does not offer an ESL program 
(School board B, 2013a).

When students apply to be an international student with a school board, they are not able 
to apply directly to a school but rather to the school board in general (School Board A, 2013a; 
School Board B, 2013b). If the student’s application is accepted, the school board will place him 
or her with a school that has room to accept international students. Not every school in a school 
board accepts international students; in School Board A, nineteen high schools are listed as 
having a program for international students but all are currently cited as being full and were not 
accepting any applications for the 2013-2014 school year (School Board A, 2013b). In School 
Board B, two high schools were accepting international students (School Board B, 2013a). 
Students can request to change schools but their choice is not guaranteed (School Board A, 
2013b; School Board B, 2013a).

In addition to being able to afford studying abroad, students must also maintain a good 
academic standing. In School Board A, students must have an average mark of 65% or higher to 
apply to be an international student, and they must maintain this average in their Canadian high 
school if they wish to continue their studies (School Board A, 2013a). In School Board B, 
students are expected to remain “in good standing” in order to study as an international student 
(School Board B, 2013b). While students who attend Canadian high schools as permanent
residents have the opportunity to re-take courses and to simply try again, it is not clear whether these international students have the same choice if they do not meet the minimum average requirement.

The following section describes the five participants’ sociodemographic information.

Student Portraits

-Julie²

Julie was a grade 11 student attending Main Secondary School in the Greater Toronto Area. She came to Canada by herself from China a year and a half ago and has attended Main Secondary School since her arrival. Her mother had heard about studying abroad from a friend whose daughter attended school in Australia. Officially, her legal guardian was a school board-designated employee who heads up the international student office. Her homestays were arranged by the school board and at the time of the interview, she was living with her second homestay family. Her initial homestay was a white, Jewish family and they lived in the same neighbourhood as her current homestay family, about a thirty minute walk from her school. At her first homestay she was the only international student. Her second homestay was a Korean man and his Chinese wife; they are both teachers with the school board at the elementary level. Julie lived at this second homestay with a friend from her school, Luanne, who is also an international student and one of the other participants in this study. Julie’s new homestay mother spoke the same language as Julie and sometimes conversed with her in Julie’s first language. The homestay father communicated with Julie in English only.

² Students’ names as well as their school names have been changed in order to preserve anonymity.
Julie did not indicate whether she had any family members in Canada. She planned to finish her final year of high school in Canada while living with a friend rather than a homestay family. She planned to continue her studies as an international student at a Canadian post-secondary institute studying business. She was uncertain as to whether she would return to China to work after her studies or remain in Canada.

**Luanne**

Luanne was a grade 11 student and also attended Main Secondary School in the Greater Toronto Area. Luanne also came to Canada from China by herself a year and a half ago. She was the one who first had the idea of studying abroad when talking with her friend who studied in Canada. She talked to her parents and they agreed that it was an experience worth trying.

Luanne’s situation in Canada was similar to Julie’s in that her legal guardian was also the school board-designated employee. She also lived by herself at her first homestay, a white, Jewish family, and she lived about a forty-minute walk to her school. As she was unhappy with her first homestay situation, she spoke to her guardian to change the homestay and now she and Julie both live with the same Asian family in which the homestay mother is a Mandarin and English speaker and the father is a Korean and English speaker. After the interview was over, Luanne revealed that although her parents had originally wanted her to study in the Greater Toronto Area, now they wished for her to move to the Kitchener/Waterloo region to live with their family friends and attend school there instead. Luanne wanted to go to university in Canada to study to be a nurse.

Luanne had taken grade 10 ESL math and planned to take Grade 11 Advanced Placement math in the following semester. At the time of the interview, she was in ESL level DO.
Brian

Brian was a nineteen-year-old grade 12 student from Korea, completing his last semester at Main Secondary School. He had been in Canada for over two years as an international student and studied at Main Secondary School during his entire stay in Canada. At the time of the interview, he was finishing a grade 12 physics course in order to upgrade his mark from the previous semester. It was Brian’s father’s idea for Brian to come to Canada to study as an international student; before that, Brian had only heard about Canada because his sister had vacationed in Vancouver. Brian’s legal guardian was a private company that facilitates Korean students coming to Canada to study as international students. His parents found the company and they specified that the homestay family be Catholic. Brian has stayed with the same homestay family since he first came to Canada.

Brian has applied to civil engineering programs at University of Toronto, McMaster University, University of Waterloo, Ryerson University, and York University. He planned to begin his university education in Canada and possibly transfer to a Korean university partway through his studies. Brian wanted to return to Korea because he needs to serve in the Korean army and he planned to build his future life in Korea. He had taken all three grade 12 university level math courses (Advanced Functions, Calculus and Vectors, and Data Management) in the previous school year and at the time of the interview was only taking one course at his high school.

Anne

Anne was a grade 11 student attending Crescent River Secondary School in the Greater Toronto Area. She lived with her aunt and uncle; her aunt is Anne’s father’s sister. Anne came
to Canada by herself. She had heard about coming to Canada to study since elementary school age, and it became a reality in high school. She classified herself as Taiwanese rather than from mainland China. Anne wanted to be a nuclear engineer but believed that jobs at the government level related to her field were not open to international students. For this reason, Anne would like to return to Taiwan; she did indicate, however, that for other engineering jobs she would stay in Canada. Anne did not believe her parents would immigrate to Canada but she would like her younger brother to come to study in Canada as well. She believed she will study at a Canadian university after all but is uncertain whether she will stay in Canada or if she will return to Taiwan once she has completed her studies.

**Peggy**

Peggy was a grade 11 student from China and also attended Crescent River Secondary School with Anne. Peggy came to Canada with a friend and the two of them lived as roommates in the same homestay. As Peggy’s school board does not arrange homestays for international students, Peggy’s father researched homestays on the Internet and heard about this specific one through some family friends. There were four international students in total, all of them Chinese, living at this homestay.

Peggy’s family, composed of her parents, her grandmother and her adopted younger sister, was in the process of immigrating to Canada but, according to Peggy, the paperwork takes a year or two to complete; in the meantime, Peggy’s parents wanted her to complete high school in Canada so they sent her ahead of time. She did not mention any other family friends or relations in Canada. Peggy was interested in accounting and was considering pursuing a
university degree in either accounting or business. She preferred living in Canada and had no plans to return to China.

In the following section, the analysis will examine these five students’ discourses on academic successes and challenges back home compared to in Canada and how other factors such as their current living conditions, friendships and ease of English language use affected their academic views and future plans.
Chapter 5: Discourse on Participation in Canadian School Culture

In this chapter I will focus on the differences that these students noticed upon their arrival to Canada, including differences in the physical environment and in the way that the school system is set up. The discussion will then turn to how these students believe they fare in math classes in their Canadian high schools, what they make of the model minority myth, and what they believe about the importance of the use of the English language when it comes to their participation in their academic and social lives.

Noticing the Diversity of People and Physical Changes in the Environment

When international students arrive in Canada, they cannot help but notice the differences between Canada and their home countries. In the case of these five international students from China and Korea, they encountered a multi-ethnic society. The research participants described China and Korea as monoethnic countries, thus the reason for the shock, in the case of some of the students, when they first arrived in Canada and came across different ethnicities of people in their schools and on the streets. Peggy explained:

I feel like [my school] consist of people from, like, all of the world because there are black people, white people, and it’s kind of like, an international school.

Anne, who attended the same school as Peggy, agreed that their school seemed to have a mix of people of different ethnicities and expressed her surprise over this:

I think there are many different kinds of immigrants from all over the world in our school, yeah. Not only Indians, many different kinds, I don’t even know their names. […] That actually surprised me, because many different kinds of people, many different appearance, yes.
Luanne described one of the first differences she noticed between China and Canada was the mix of people here:

China – I know China is all the Chinese and Canada is different country – different uh, people, white people, black people, and uh, maybe they are from Europe.

Brian also mentioned the different ethnicities of people in Canada, noting that before coming to Canada three years ago, he had never seen a “foreign person.” These students spoke of the mix of people in their schools and in the Greater Toronto Area in general as a positive aspect and one factor that enhanced their experience studying and living in Canada. From their discourse it seemed that these students enjoyed living in a multi-cultural society like the Greater Toronto Area.

Another difference that these students stated noticing was the change in weather. All of the students described how much colder it was in Canada; some of them also described how the air was fresher here than in their home country. Brian mentioned that it was almost the first time he encountered snow when he came to Canada. Anne also listed the landscape and the weather as the main differences she noticed when she first arrived here:

Like, first of all, that would be a big land. In Taiwan, everything is high buildings and just pretty crowded, and the air – the air here is fresh, pretty fresh, and the weather, yeah, absolutely the weather, it’s colder here.

Peggy listed the language and the landscape as the first things that she noticed were different than what she was used to in China, stating “there are a lot of high buildings in China.” She also mentioned that the weather was colder and drier in Canada than what she had been used to in China. Such changes in physical landscape influenced Anne’s experiences, as she mentioned how the distance between buildings and shops affected her attitude in Canada:

And, yeah, mostly lonely because when I have nothing to do in Taiwan, I call my friend and we can hang around, and we live pretty close to each other in Taiwan.
And everywhere we go, we can just walk, we don’t have to pay for anything, we just walk, take a walk to a park or something, but here everything is far, far away from each other, so we have to take bus, that kind of stuff. Yeah. But now, it’s OK now, I think I’m used to it. Just used to it but still kind of feel lonely.

While Anne expressed that she was used to the different landscape, her statement about still feeling lonely suggested that the change in physical environment reminded her that she was in a different country far from home. It is clear that the participants’ mention of these environmental differences supports Popadiuk’s (2010) and Heggins and Jackson’s (2003) claims that the new environment does play a role in international students’ adjustment to studying abroad.

While the high school international students in Popadiuk’s (2010) study claimed that they felt “proud and lucky to live in the city, feeling happier and healthier than back home, being uplifted and wanting to stay longer, and being impressed” by the new Canadian environment (p.1537), the students in my study did not mention these as outright reasons for wanting to study in Canada or for staying in Canada once their studies were completed. According to Heggins and Jackson (2003), these changes in “language, norms, laws, and the people” are factors that contribute to Asian international students’ potential feelings of being ostracized while studying abroad (p.385). As Popadiuk (2010) asserts, there needs to be more research about such factors like geography and weather influencing international students’ acclimatization because at the current time, research on this topic is lacking. One area that past research on international students has focused on is the differences in the school system, and my research participants elaborated on the changes they noticed and how these changes affected their roles as students.

One difference that these students experienced when making the move to attending their public Canadian schools was the relaxing of school rules. All of the female participants in this study mentioned how they had to wear uniforms in their schools in China. In addition, there were other rules that restricted what the students could wear, such as jewelry and even their
hairstyles. Julie described that, at her school, the girls had to tie up their hair in ponytails and if they had bangs, they would have to be above the eyebrows. Boys were expected to have buzzed haircuts. Peggy added that girls are not permitted to wear jewelry to school. Furthermore, students were not allowed to date:

And of course, you can’t have a boyfriend or girlfriend. Yeah, [teachers] would contact your parents and they will try all the ways, like, they can to, like, make you break up.

While most of the girls spoke as if to condemn all the rules that they had to follow back home in their Chinese schools, at least one student, Anne, lamented the loss of structure:

Yeah, we have to wear a uniform [back home]. I miss that so much. […] Because you don’t have to think about what do you have to wear, every day, every morning, you just have to grab your uniform somewhere and put it on.

Even a simple adjustment such as having to think about what clothes to wear to school posed a change in routine, as in Anne’s case the freedom to choose her clothing and personal appearance was a new factor that she had to consider when getting ready for school in the morning in Canada.

Another major difference in school rules was the disciplinary measures that teachers were allowed to take with their students. Both Anne and Brian discussed the differences between disciplinary measures in their schools back in their home countries and their schools in Canada; Anne described:

And the teacher, like, here, if you sleep in class they just knock your desk or just, don’t even look at you. But the teachers in Taiwan, they will be – they give you extra punishment. Also the homework, if you didn’t do homework, you have to, like, maybe stand – standing up during the whole class or you have more exercise for the homework. Yeah, something like that.
Brian mentioned corporal punishment as one of the differences between school in Korea and school in Canada, noting that although now the education system in Korea has changed and perhaps teachers can no longer hit students, when he attended school they certainly could and did:

 Uh, some people, like, don’t hitting, but like, actually, Korean students do not follow well, so, I think teachers hitting every day [during] that time.

These students’ mention of stricter disciplinary measures in their home countries aligns with prevailing beliefs about the importance in East Asian cultural practice of following the teacher or authority figure’s words without question (Myers, Zhong & Guan, 1998; Huang, 2009). The difference in the level of discipline is another change that these international students must become accustomed to; it supports the notion that North American students are expected to be more independent and rely less on the teacher to motivate them to do their work (Cheng & Guan, 2012; Huang, 2009). What is really interesting is Brian’s statement about Korean students not “follow[ing] well” suggests that the model minority myth about Asian students always obeying authority figures does not seem to hold true from the perspective of the students within the supposed homogeneous group of Asians.

Another common difference that was mentioned between school in China and Korea and school in Canada was the difference in class size. Julie mentioned that in one class back home in her school, there were almost sixty students while in her Canadian class there were at most thirty students in a class. Luanne described her class sizes as thirty to forty students in China, while in Canada she had around twenty classmates. Brian said in elementary school he had perhaps sixty classmates, while in high school he had about forty classmates; he did mention, however, that his younger sister, who was studying in Korea, had fewer classmates now than Brian had when he studied in Korea. This decrease in class size was another change that these international students
experienced when they made the move from China or Korea, which created a new, more intimate learning experience for them.

In addition to the difference in class size, the orientation of the students was also different in Chinese and Korean schools. Both Julie and Peggy mentioned how in China, all students remained in their one classroom throughout the whole day while the different subject teachers came to the classroom to teach their subject; this classroom was the students’ territory for the entire school year. Anne had the same experience when she attended school in Taiwan:

We have to move between classes to classes. But in Taiwan we just sit in the same class. There is a certain room for every class, we just sit there and then you – you’ll be with the same people for three years, like, your classmates. But here, you have to move around because you have different classes for different classrooms, you have to move around. Oh, but in Taiwan if you’re going to science class you have to move classrooms. But like, most of the classes, math, Mandarin, English, you stay in the same classroom.

With the exception of one elective class and the math class that separated students based on their achievement levels, Brian also described how the majority of his classmates were the same for the entire school year. The system that these students were used to back in their home countries was quite different from the classroom set-up in their Canadian high schools. Both Main Secondary School and Crescent River Secondary School are semestered schools in which students move from classroom to classroom for each period and many, if not the majority, of their classmates change from period to period. The difference in class size and the movement of students from room to room were changes that these students had to become accustomed to very quickly in order to function in their Canadian schools. This seemingly simple shift was another difference that reminded these students that they were studying in an unfamiliar environment.

With the move to Canada, these students negotiated new ways of forming peer groups as their classmates kept changing from class to class. When asked which system he liked better,
Brian expressed his preference for the Canadian high school system where both classrooms and classmates were different every period. His reasoning was that with the Canadian method, he was able to meet more people. Julie, on the other hand, preferred the Chinese system:

[...] We stay all day, and we know who is real friend.

Brian’s response showed that one change he noticed with the move to a Canadian school was that he was able to interact with a variety of students and could get to know more people. On the other hand, Julie’s statement suggested that her social group was more solidified in her Chinese school because she was with the same classmates all year long. Julie’s perspective proposed that it is may be more challenging for East Asian international students to form friendships as they do not spend a lot of class time with the same peers; this supports Popadiuk’s (2009) finding that some international students at the high school level find it more difficult to make friends than they had hoped.

Aside from the structural differences that these students noticed, there were other significant changes that affected these students’ classroom practices which will be discussed in the following section.

*Participating in New Learning Communities of Practice*

Since the students interviewed in this study have attended schooling for several years, they had a good understanding of the differences between how the school system was run in their home country and how it is run in Canada and which system they preferred. In the interviews, the students discussed the new expectations of their Canadian schools, how they interacted with their teachers and how they became participants in the school cultural community.
All five students described spending less time in school in Canada compared to back home. In China, Julie started school at 9am and finished at 7pm. She had nine classes during the school year and her schedule changed from day to day; on some days, she would study a subject twice as long as she would on another day. At Main Secondary School, Julie began class at 9am and finished school at 3:30pm – a much shorter school day than she was used to back in China. Luanne also described her school day in China as being longer than her school day at Main Secondary School; in China, she started school at 7am and ended at 5pm, studying six subjects for the entire school year based on a weekly schedule. Brian’s schedule in Korea had him attending school from 7am until 11pm, eating both lunch and dinner meals at school. He explained that, officially, classes ended at 5pm but from that time until 11pm students had mandatory study hours at school where there was a teacher who supervised the students. With the exception of senior students who could get permission from their homeroom teacher to not attend these study classes, these sessions were mandatory for students in younger grades. Peggy’s daily school schedule here was also shorter than what she was used to back home; in her Canadian school, she took four classes every day from 8:10am to 2:50pm, while back home in China, her school day ran from 7:40am until 9:30pm in a similar set-up as Brian described, with the evenings dedicated to individual study. In Taiwan, Anne started school at 7:30am and finished at 4:50pm. After dinner, she attended extra lessons outside of school so she would continue her studies from 7pm until 10pm. Anne’s schedule, including the extracurricular lessons, was typical of a Taiwanese upbringing in which most parents send their children to after-school tutoring, particularly for math lessons, throughout their many years of schooling (Wei & Eisenhart, 2011).
These five students had to get used to the different school system here as they all attended semestered schools in which the same four subjects are studied on a daily basis for 75 minute periods for the first five months of the school year. Then, there is a final exam for most of these four subjects, and once these exams are over the new semester begins and the students learn four new subjects every day for the next five months. Since the subjects in their Canadian schools are studied for seventy-five minutes compared to fifty to sixty minutes in their home countries, these students had more class time built into their day to begin (and in many cases, complete) their homework. Back in China and Korea, these students described how a typical class was spent with the teacher taking the entire period to teach, as mentioned by Peggy:

[In] Chinese class, we do not have time to do homework. The teacher will talk the whole class.

While back home in Taiwan, Anne had to find time between classes and during her lunch and dinner breaks to complete about two to three hours of homework daily; in Canada, she found that she usually had enough class time to finish all her work and spent at most an hour every evening doing homework at home. Another change these students noticed was that they had more opportunities to interact with their teachers in their Canadian classrooms.

Contrary to Diangelo’s (2006) findings of Asian college international students being reduced to mere audience by their White, English-speaking classmates, the students in this study became more active participants in their classroom culture when they made the move to Canada through increased student-teacher interaction. Peggy explained that at Crescent River Secondary School, there is more interaction between students and teachers than there was in her school in China; in her opinion, this level of interaction lent itself to a more interesting learning experience. She commented:
In China, I think the classes, like, boring. It’s more boring. You just have to sit down and listen to the teacher and the teacher will talk all the class and then you do your homework. But here, it’s like, teacher will, like, um, give you the worksheet and kind of, like, we have the class together instead of just the teacher talk. I think the class here are more casual, something.

Brian expressed a similar viewpoint, stating that:

Most Korean students are unactive, like, teacher control all people but Canada education system is different cuz teacher want to talk with student, they always want to talk with student. I like that.

These students expressed similar views as Asian post-secondary and graduate students when it comes to the differences between school culture in Asian countries and school culture in Canada – the teachers tend to lecture more in China while teachers in North American schools incorporate more class discussions and opportunities for student-teacher interaction (Myers, Zhong & Guan, 1998; Huang, 2009). Based on the discourse of these students, the same finding extends to classrooms at the high school level. Both Peggy and Brian felt that their Canadian high school teachers were engaging the students by having discussions and trying to talk to the students rather than filling up the entire class time with just note-taking. Brian claimed that:

[Korean teachers] also talk with students but less than Canada. Like, they, usually they write the theory, like that, and Korean students write, write theory, and keep going, keep going, keep going. […] Canada teachers almost, like, write something briefly, then they talk about what is it, like that, then talk about and ask a question, what is it, then student answer about the question.

Anne described a similar lack of teacher-student interaction in the majority of her classes in Taiwan, where students would take notes during the whole class in their books while the teacher lectured:

[…] if you’re talking about the Mandarin class, it’s a lot on the board and you actually have to make a lot of notes on your textbook, […] they have space on the textbook and usually if you look at those textbook for those students, you can see – oh my gosh. Full of words, full of notes. And, like, for science courses, it’s the same. You have to make notes. Yeah.
This view of the Canadian classroom being more interactive supports Huang’s (2009) assertion that North American teachers use “varied informal teaching methods” (p.336) and that students and teachers are more equal partners in the learning experience. This finding supports what Huang (2009) discovered about the difference between the North American education system, in which student participation is encouraged, compared to the Chinese education system in which the flow of information is unidirectional from teacher to student.

These changes in classroom norms resulted in a shift in what students perceived their roles to be in the school environment. Back home in their Chinese and Korean classes, these students were passive participants, doing what the teacher said and not having much opportunity to ask questions or interact with the instructor. However, in their Canadian classrooms, they were treated more like partners – the teacher is still the authority figure at the front of the classroom, but now the students were expected to be more active learners by participating in discussions and talking with their teachers. This is in line with Myers, Zhong and Guan’s (1998) assertions that Western education systems value students who are active participants rather than the typical Chinese model of students who attend class, listen, take notes, and do not interact with the instructor or engage in small group activities. These students’ identities as learners shifted more toward the North American model as they learned to value more the teaching style employed by their Canadian teachers who utilized classroom discussions and informal interactions. By mentioning their enjoyment of increased interactions with the teacher in the classroom, these students’ comments support and extends Myers, Zhong and Guan’s (1998) findings that Chinese post-secondary students enjoyed a class more and were more engaged in the subject matter when their instructor used nonverbal and verbal immediacy behaviours.
Another difference that two of these international students noticed was their more prominent role in deciding what courses they would take in Canada and their increased levels of self-regulation when it came to their schooling. Peggy described one benefit of coming to Canada to study was that she had the freedom to select courses based on her interests:

And because, like, in Canada, I can choose the course I’m interested in, but in China you have to study biology, geography, all that stuff. Here maybe there is more free.

Both Anne and Peggy believed that the Canadian education system demands that students take more initiative and play a larger role in their own education. Peggy’s comment about being able to choose the courses she was interested in is in line with Myers, Zhong and Guan’s (1998) statement that in China, college students do not enjoy as much freedom in choosing elective courses as do college students in the United States. As Peggy expressed, the Canadian education system favours students who are better at self-regulating:

[…] the teachers here, the teachers here won’t tell you, like, will not force you to do the homework or tell you what to do. It’s pretty much on yourself. You have to know what you want to do and you have to keep yourself doing it.

Anne agreed, stating:

What do I prefer? I’ll say, like, the system here, because you’re a high school student, you have to look at your behaviour on yourself, you have to take care yourself, not the teacher have to tell you what to do, yeah.

For Visa students coming from China and Korea where the school day was tightly scheduled and regimented, experiencing the Canadian school system is a complete change that they need to become used to in order to succeed here. As they do not have such strict rules about completing homework or having all of their courses decided for them, these Visa students need to deal with the sudden onset of freedom and autonomy that they have attending Canadian schools. This change also affects their identity as students; they must now rely on their own motivation and
sense of responsibility to complete their homework and stay on track. Peggy and Anne’s viewpoint of the North American school culture favouring more independent learners supports what Huang (2009) posits is the Socratic approach to education in Western societies. From what was shared by the participants, it seems their identities have shifted with their move across the ocean; without their parents or the rigid expectations of the school set-up that they had been used to back in their home countries, these students became more active, independent learners in order to meet the expectations of the school system in Canada (Cheng & Guan, 2012).

These Visa students’ identities as academics were influenced by their move to Canada. They learned to navigate different classroom environments and peer groups as they moved from class to class during their four-period school day. In addition, they also had to become more independent self-regulators in terms of completing their work, yet at the same time they found it easier to do so because of the longer class periods and lack of material covered in depth. This shift in classroom participation norms influenced how these international students viewed themselves as more active participants in the Canadian classroom than they were in their Chinese and Korean classes; these new communities of practice impact how their identity as students, and their identity as mathematics doers, were formed (Cobb & Hodge, 2007).

In the following section I will outline how these students experiences with math classes back home and math classes in Canada have impacted their identities as mathematics doers and what these students had to say about the model minority myth.

*Identity Formation as Mathematics Doers and East Asian International Students*
The subject of mathematics is an important component of this study as I explore the facet of the model minority myth that Asian students are particularly successful in this subject area. Li (2001) references authors such as Kim and Chun (1994) and Sue and Abe (1995) who claim that Asian students have historically had higher scores on mathematics assessments and the SATs in the United States compared to European Americans and other minority groups. A common explanation given by the students in this study for the success of Asian students in North American math classes was that they perceived the level of math instruction to be easier and less in-depth than instruction in their home countries. Luanne explained:

And uh, for the knowledge, China is a little bit difficult. [Math here is] easier than China.

Peggy also used the word “easier” to describe the level of mathematics in her Canadian high school compared to her Chinese one. One reason for the perceived “easier” level of mathematics was because many of these students had already learned the math they were doing in their Canadian math classes back home in China and Korea before coming to Canada. Luanne stated:

[…] before I [was in] grade 10, I learned grade 10 math.

Brian echoed the same sentiment:

[…] like, when I come to Canada, I can study basic stuff. Grade ten, I already know about grade ten, so I can review math.

These students’ perception of the easier level of mathematics in their Canadian high school experience aligned with how Chinese immigrant parents felt in Li’s (2006) interviews, providing evidence that they felt the same as these parents about the lower level of instruction in Canadian math classes benefiting their course marks.

In addition to already having learned some of the concepts in their home countries, these international students experienced more success, overall, in their Canadian math classes because
of the slower pacing of the lessons. Julie explained that, in a regular math class at Main Secondary School, her teacher would first teach the mathematical concepts then give time in class to practice the questions until everyone understood the concepts. This structure and pacing was different than what she had been used to back home in China, especially when it came to writing tests:

In China, we study, we study it’s very fast. […] The – maybe, sometimes in one class forty minutes, and we need do one test, it’s mean almost fifty questions.

When asked if she preferred the system from back home in China or math classes in Canada, Julie answered that she liked math class in Canada because of the slower pacing:

Teacher [in Canada] give you enough time to think about this question, and it’s [not] too much information we [have to] learn.

By coming to Canada, Julie became a more successful mathematics doer as she was able to take her time learning the concepts and gaining the practice she needed in class to master the subject. Brian gave a similar account of his math classes in Korea and also believed that the slower pacing of the lessons in his Canadian math classes at Main Secondary School allowed him to better understand what he learned:

In Korea, I have to keep going and take lesson again and again so I don’t have time to review about what I couldn’t understand, but Canada have many time to study […]

One result of the slower pacing was that these students were able to complete their assigned math homework in class, something that Peggy explained that she was unable to do back in China:

Class starts, like, […] teacher will just teach, if there is a formula or some new stuff we need to learn, […] and he’ll give some examples and we solve it together, and then he will, like, tell us the homework and we’ll do the homework. […] In Chinese [math] class, we do not have time to do homework. The teacher will talk the whole class.
By working in class rather than leaving their homework for later, these international students seemed to truly maximize the class time they had, which aligns with what Huang and Waxman (1993) discovered about Asian immigrant students maximizing their class time with teachers more than their White counterparts. Anne explained that the slower pacing of the lessons also benefited her homework completion habits:

> I think the teachers they plan for the curriculum every day, so they introduces – introduce the material first, then they kind of have notes on the board, and then you have to note it down on the lined papers, and they start to talk about the examples, and the last part is working, so you have some homework, you can practice. Actually, homework is done in class, for me.

By studying in Canada, these international students believed that they achieved a higher level of success in mathematics than they did in China and Korea because the perceived lower level of material and less in-depth coverage allowed them more time to study and less material to have to know for tests and exams. These changes in classroom structure and expectations point to changes in the students’ normative identities, which include what procedures and steps these students need to follow to be effective math students in their Canadian classrooms (Cobb & Hodge, 2007). From what these participants have shared about their experience, it seems that as they became used to new classroom routines and adjusted their roles as students in a Canadian classroom, these students’ identities evolved as they became more independent workers and active participants in their Canadian classrooms.

Although she believed that she was not achieving at the level she should be, Luanne still admitted that she liked math but couldn’t explain why she liked it. Her identity as a mathematics doer remained unchanged with the lower levels of achievement in her Canadian math class. Brian, on the other hand, expressed his increased enjoyment of mathematics after coming to Canada:
[...] I think – I hate the math class in Korea, but I changed in Canada.

He explained that his increased enjoyment was due to having less pressure to succeed on the final exam and his improved grades in Canada compared to in Korea. Brian’s identity as a mathematics doer shifted positively as he experienced more success in his Canadian math classes. Julie’s discourse revealed yet another side of the East Asian international student experience as she described her enduring disinterest in the subject of mathematics. Despite claiming she enjoyed the subject more in Canada than she did in China, she expressed her overall dislike of the subject:

Because in China, math is very difficult, so…I don’t like.

In Julie’s case, her core identity as a mathematics doer was not positively affected by her experience with mathematics in Canada because of her lingering negative experiences with the subject in her home country. These students’ varying degrees of enjoyment with mathematics suggests that one concept the model minority myth ignores is that Asian students have individual preferences when it comes to what they enjoy or do not enjoy studying at school.

Anne and Peggy were two students who described always having liked math class and being good at math, achieving high results and enjoying their success. Anne said her favourite subject was mathematics because she found it interesting. However, she was the one student in the study who said she preferred the math instruction she received in Taiwan compared to the level of instruction in Canada:

[In Taiwanese math classes] you practice a lot, they give you a lot of questions, and different levels of questions, like, if this is the first day of trigonometry, they will give you the easy ones, and as the days go on, they will give you more and more difficult ones. And then they will have a brand-new one, it’s like the thinking questions, you’ve never seen those kinds of questions before, they will be on the exam and tests.
For Anne, her enjoyment of mathematics revolved around getting as much practice with the material as possible and exploring new levels of problem solving, which would help her in her engineering studies. While Peggy also admitted that math instruction in China was more in-depth, she believed, unlike Anne, that too much detail was not a good thing:

I think the things that we learned in China are more difficult than what we learned here. Um, but those things are kind of useless because, I mean, like, if you did not really major in that subject you did not really have to know a lot about it, you just know the basic things and I think that’s enough.

For these two students, they described their enjoyment of math as one of the reasons why they experienced success in the subject area, which aligns with Huang and Waxman’s (1993) finding that Asian students achieved better results in mathematics because they enjoyed the subject. Their identities as mathematics doers were unchanged with the move to Canada as they both enjoyed mathematics before in China and Taiwan and they still enjoyed learning the subject in Canada. However, their unique levels of enjoyment and what they hoped to get out of the subject was different and supports that the model minority myth does not account for such differences in Asian students.

While it seemed difficult for some of the students interviewed to explain in great detail why they liked or disliked the subject of mathematics, all five of them described future career paths that require continued study of mathematics. In this way, they seemed to recognize Lubienski’s (2007) and Walker’s (2004) claims of mathematics as being the subject that is the gatekeeper to future achievement and career prospects. While Julie did not enjoy studying math at all, she knew that she would need it for her future university studies as a business major. Like Julie, Luanne was pursuing a pathway that required her to take more math courses – she wanted to go to university to become a nurse. She explained that she planned to take an Advanced Placement math course because “it’s good for nursing;” she added that even if she were pursuing
a career path that did not require math courses, she believed she would still continue to take math courses. Brian also required more math credits because he wanted to study civil engineering. He claimed that he would take math courses even if his future program did not require it because he preferred it over other subject offerings at his school. Anne also recognized the role of mathematics in her future career:

I’m going to engineering, I think, in the future, and for engineering, math, it’s pretty important.

In Peggy’s case, her enjoyment of the subject was related directly to its application in her future and she recognized its importance in daily activities such as personal finance:

[I like math] because it’s useful, like, you have to buy things, you don’t want to lose your money.

Peggy’s reasoning was tied to her future goal to become an accountant; in this way, mathematics instruction was effective for Peggy as it provided relevant information that will help her achieve her objective (Gutiérrez, 2007). As mathematics instruction aligned with both Anne and Peggy’s future aspirations, it was meaningful for them both (Cobb & Hodge, 2007; Martin, 2007).

As all five of these students already had a clear vision of what their future studies and career paths hold for them, they had a big motivator or push for them to continue their studies in mathematics and aim for high results. Regardless of their personal like or dislike of the subject, they recognized the importance of the subject of mathematics to their future career aspirations. Their discourse revealing the significance of mathematics to their lives suggests that Cobb and Hodge’s (2007) definition of equitable mathematics instruction has been, at least in one aspect, achieved with instructing these East Asian international students when it comes to their “long-term aspirations” (p.167). They displayed understanding of needing to commit to learning mathematics because of its importance to their “pursuit of happiness” in achieving their career
goals (Gutiérrez, 2007, p.46) and their mathematical education experience was meaningful because of the daily application of mathematics in their careers. At the same time, these students described different comfort levels and enjoyment with mathematics, which speaks to their unique experiences studying as international students in Canada and provides evidence that the model minority myth does not fairly account for students’ individual preferences that may influence their long-term goals.

The model minority myth states that Asian students in North America achieve greater levels of academic success than other minority groups due to their hardworking nature, their inherent abilities (particularly in the subjects of math and science), and the value their parents place on education (Trytten, Lowe & Walden, 2012; Lee, 1994; Park, 2008; Wing, 2007). One of the prominent facets of the model minority myth being that Asians are good at math, I asked my participants whether or not they found this statement to hold true. One interesting finding was that several of these students did believe this statement to hold true, but only for Asian international students – that is, only Asian students who had, at some point in their lives, studied mathematics in Asia were very good at mathematics.

When I asked Julie about Asian students’ success in Canadian schools, she explained that she believed Asian international students did well in mathematics in particular. When asked about Asian students who were born in Canada, however, Julie could not describe their levels of achievement in school – she said she did not know what kind of marks these students earned in their math courses. Although Brian said that no one ever said directly to him that he should be good at any certain subject because of his Asian ethnicity, he did admit that he often heard the stereotype that “Asians are good at math and science.” He claimed that it seemed true at his school because the Chinese international and immigrant students in his school attained higher
marks in math and science courses; his explanation for this was because they had more practice in their home countries:

I think...I think most Asians take lessons, like, early than Canada, so they – most Chinese or Korean know how to figure out math questions, so. They already practice more than Canada.

He claimed that this stereotype of Asians being good at math and science only applied to those students who had been educated outside of Canada; when asked about Korean and Chinese immigrant students who had been educated in Canada for all their lives, Brian expressed his belief that they were no better at math and science than other students. Peggy was also aware of the stereotype of Asians being good at mathematics; she experienced this firsthand, with people saying directly to her that “Asian students are best at math.” Like Julie, Peggy could not answer whether this statement applied to Asian immigrant students because she did not socialize with them and was not close enough to them to know their academic achievement levels. She did believe that this statement was true when applied to Asian international students because of her own success in math class as well as the success of her other Chinese international friends:

Because I think maybe Asian students always get good marks in math. [...] I think it’s true because my friends all get good marks in math.

These students’ discourse revealed that they did not believe all Asian students are part of a homogeneous group and dispelled the model minority myth that all Asian students are created equal and all are good at math and science. At the same time, they did group Asian students educated in Asia as being good at mathematics.

One reason why these students felt that Asian students educated outside of Canada were more successful in mathematics was because of the extracurricular classes that many of them attended on a regular basis in their home countries. Anne described:
Asian students always do that, like, they go to outside classes and they always learn more there. At school, they just listen to the class and, it’s kind of more easier there, in schools, they don’t teach you a lot, actually. And because you go to outside lessons, they teach you more lessons, they give you some more difficult questions, you can do better on the tests.

Anne’s statement aligns with Li’s (2006) discovery that Asian parents are willing to invest more in their children’s education through more tutoring and extra lessons outside of school. Anne’s discourse again grouped all Asian students educated in Asia as the same, achieving high results due to all of them having been educated in extracurricular classes.

Another reason that these students gave about international students being more high-achieving was the level of schooling Asian students receive in their home countries. Anne claimed that there is a stronger basis of mathematics being taught in her home country of Taiwan, which is why Asian international students enjoy higher levels of success academically:

Because, like, in Taiwan, in Asian countries, you have strong base for those math and science, those courses, the teachers gave you a lot of exercises and different kinds of questions, so kind of had stronger – stronger basis, I think so.

Peggy also believed that the more rigorous education system in China was one of the main reasons for the higher level of success achieved by Asian international students:

Because, um, I think this is related to education in China, because the things we learn here in grade 11 are almost the things we learn in grade 10 in China.

Rather than prescribing to the belief of an inherent smartness of Asians in math and science as Trytten, Lowe and Walden (2012) claim is one of the facets of the model minority myth, these two students believed that Asian international students achieve high levels of success in mathematics due to the more rigorous training they receive at an earlier age in their home countries. Their claims align with Li’s (2001) results that Chinese immigrant parents believed their children achieved high academic results because of the challenging learning environment that they grew up in and the education they received in China.
While most facets of the model minority myth have been dispelled by these students’ statements, there was one facet that Anne expressed a willingness to believe in – that of the hardworking Asian. When asked why she believed the image of Asian students as being good at math exists, Anne explained that it is because Asian students are hardworking:

[…] because of their parents, they have to work hard to satisfy their parents. Not because they’re smart, but they work hard. […] [Canadian students] still work hard, but Asian students work pretty hard, like harder than anybody else.

Anne’s perspective aligned with that of the model minority myth, which includes the belief that “Asian Americans are successful in school because they work hard” (Lee, 1994, p.413). In this way, she was like many of the Asian American engineering students in Trytten, Lowe and Walden’s (2012) study, who also subscribed to the stereotype of the hardworking Asian; her comment also supported Huang’s (2009) statement that participants of Chinese cultures employ Confucian values of learning and thinking, which state that hard work rather than an inherent smartness is the main reason for success.

Four out of the five students interviewed for this study ascribed to the model minority facet that Asians are good at math; however, they specified that this applied to Asian international students only. Rather than believe that all Asian students achieved success in mathematics due to an inherent smartness, they believed that success was based on prior experiences learning the material. In Anne’s case, she also thought that Asian students work harder than other students in order to please their parents; her statement aligned with Kao’s (1995) findings of Asian parents having higher, non-negotiable expectations of their children and Li’s (2001) findings of Chinese students who were more highly motivated because their parents were more passionate about their children’s education and had high expectations of them. The exception to these findings was Luanne, who, unlike the other four students in the study, felt that
there were no stereotypes of Asian students’ success. When asked if she had ever heard of any stereotypes of Asian students being good at math or science, she quickly answered “no.”

The fact that these international students believed prior training to be the prime reason why Asian international students are academically successful, besides Luanne, is evidence that these students held themselves to the same high standards – they were Asian international students who had studied math outside of Canada, thus they should also be better at math than students who had studied in Canada all their lives. As these students did not indicate that they felt they were negatively impacted by the model minority stereotype, it would seem that they have not yet been exposed to the way that such myths can be used to ignore the needs of Asian students, or they have not experienced any negative effects as of yet, or did not choose to address them in the interview. One reason for this lack of exploration could be because in order to be an international student, one must maintain a certain academic grade. Another explanation may be that these students just did not feel any difference between themselves and the students who have attended Canadian schools all their lives; however, the fact that these students could not describe the achievements or the daily lives of their non-Visa student peers indicated that they did not have enough interactions with such students. In the following section, I will discuss how these students described their level of English language use and its importance in math, other areas of academia, and social interactions.

Importance of Learning and Using English

For English Language Learners (ELLs), the acquisition of socially used English, or the language needed for informal conversation and daily living, takes about two years (Cummins,
The acquisition of academic English, or the formal language used in reports, essays and other forms of communication for academic purposes, including content-specific English used in specific subject areas, takes five to seven years or longer (Cummins, 1984). The use of English for social and academic goals impacted how these students viewed themselves as members of their school society and Canadian society at large. For some of these Visa students, learning English for use in the math class was not a challenge while others felt that it held them back from achieving higher standards. For all of these students, English took a backseat when it comes to their social interactions with other students at their school and their interactions with friends outside of school.

The importance of learning English was ingrained into the daily school routine of these international students, all of whom learned English at their schools before coming to Canada. Brian’s description of his English classes in his Korean school depicted how the subject was broken into its crucial aspects and taught at his school, much like French is taught as a second language to students in Ontario as Canada’s official minority language from grades three up to and including grade nine.

[…] and English uh, English, like, class one is grammar, like that, so maybe three week – three times a week. […] And one is like, I can’t remember, it’s called conversation, so once a week.

All five students studied English at their schools in China and Korea; in addition to these mandatory school classes, Anne and Peggy both attended extracurricular English language studies. Anne explained that her in-school English classes did not help as much as her extracurricular classes:

The weekends, sometimes I have to go to, like, tuition school, to study extracurricular. And that’s also where I learned English.

Peggy also attended outside language classes:
But it’s [the extracurricular classes], like, English – EF education, they are all foreigner – foreign teachers, like American, Canadian teachers, like, they just kind of talk to you, practice. It’s kind of like that.

Anne expressed her belief that mandatory school English classes leave international students underprepared to effectively communicate in English when they arrive in Canada. In fact, these two students were the ones whom I found most able to easily converse with me during the interviews. These five Visa students’ differing levels of comfort with English in math classes was another indicator of how the model minority myth overgeneralizes the skills and needs of Asian students.

While all five participants explained that they found their math class in Canada easier to get through than in their home countries, a couple of them still encountered some difficulties when it came to the use of the English language in math classes. Luanne expressed that her mathematics skills were hindered by her lack of English language knowledge:

In China, I have good marks but in Canada, the language is very a big problem, so I didn’t get very good.

Luanne said she took ESL math at Main Secondary School, which teaches the same level of curriculum as the regular math classes but as all of the students are ELLs there is more of a focus on language teaching. In spite of this, she explained that she still struggled with English mathematical terminology.

[When I first started the course] I think I [was] good, because before I learned this in China. And uh, the end, I don’t understand some English words, so I can’t understand about the question, I can’t do. I feel difficult.

Luanne’s discourse revealed that studying mathematics was intimately related to knowing academic English for mathematical purposes. While she generally found math to be a subject that she could easily master, her lower level of English language use was an obstacle to her desired level of success in her Canadian math class. Luanne’s statement aligned with what one
of Huang’s (2009) participants expressed about the challenge of learning a course in English because of his difficulties with the English language. Heggins and Jackson (2003) explain that a lower English competence level is one reason why international students at the post-secondary level feel less confident about their academic abilities, and Luanne’s discourse suggested that high school students may encounter similar feelings of inadequacy. Although Luanne felt confident about the mathematics she was learning at first, she faced a challenge when it came to learning the English language and math at the same time; thus, her comfort level with the math she was learning decreased, a turn of events that affected her identity formation as a confident mathematics doer.

Luanne’s expression of frustration with her mathematics abilities being challenged by English language struggles was not unique. Even Anne, who achieved marks in the mid to high nineties in mathematics classes at Main Secondary school over the last two school semesters, felt that she should do better:

Anne: I’m really, really actually good at [math], I could get 99, 98, something like that, but still, I think I have some trouble.
Vivien: What are the difficult parts of math here?
Anne: Difficult, difficult parts…I think it’s the way the questions are like, the way – because they are different from Taiwan, what they are asking you, and the way the questions look like […]

Since students in North American learning communities are expected to be able to communicate their mathematical thinking and to practice the mathematics Discourse specific to these new classroom settings (Moschkovich, 2002), learning the language of mathematics in English plays an important role in these students’ academic lives (Li & Chen, 2008). As all of these international students are ELL students, they should have some support acquiring math-specific vocabulary in English (Marks Krpan, 2007). The difference in the way that math concepts are taught and the way the questions are formed posed a challenge for the high-achieving Anne,
which supports the view that math is not free of linguistic nuances (Cirillo, Bruna & Herbel-Eisenmann, 2010) and that different environments will require proficiency in mathematics Discourse which is unique to the social context of the environment (Moschkovich, 2002). As math problems in their Canadian classrooms were presented to these students using English language and North American notation, they had to become accustomed to these new norms in order to succeed in their math classes. Heggins and Jackson (2003) argue that international students at the post-secondary level need to develop language competency in order to feel more confident, which will translate into their acculturation in a new education system; the same is true for international students at the high school level. Indeed, it is still difficult for math classes in Canada to embed explicit language teaching as it is not apparent that math classes in North America would require a different set of practices than math classes in other countries (Moschkovich, 2002) and we need to help ELL students understand that everyday language can be used mathematically as well as teach synonyms that denote the same mathematical term and words that sound similar to mathematical terms but with different meanings (Cirillo, Bruna & Herbel-Eisenmann, 2010).

Even within this small group of international students, however, there was variance in their perspectives on language and mathematics learning. Peggy was one student who felt that learning math in English was not a huge hindrance to her achieving high levels of success; she claimed to be earning a mark of 100% in her grade 11 university-level math course and that she did not find math class in Canada difficult, even when it came to solving word problems in English:

Maybe sometimes, maybe there is a word that I may not understand, but it is sometimes, and I can ask teachers about it and I can get it.
Peggy’s discourse revealed how her experience learning math in English was different from that of Luanne’s and Anne’s, a finding that illustrates how the model minority myth that homogenizes Asian students is outdated. Her experience may serve as evidence of Moschkovich’s (2002) assertion that bilingual students use multiple resources – in this case, Peggy’s teacher was her resource – in order to be successful in English-language mathematics class. Thus, as Zhao and Qiu (2009) assert, the model minority myth is refuted by these students’ differing levels of comfort and support needed with English language skills in their mathematics classes and as Moschkovich (2002) argues, every student will use his or her first language in a different way when participating in the mathematics classroom. It would be tempting to group all international students in an ESL-level math class and claim that they all need the same level of English language support; however, even within this group of five East Asian international students, there is a great degree of differences.

Some of the students also revealed their struggles with other areas of academia due to language issues. More than one of my research participants mentioned that they had even more trouble with science than in their home country due to their level of English language proficiency. Luanne claimed that English language use held her back from achieving higher levels of success in the subject. While she explained that her marks in science were not very good in China, she said they were even lower in Canada due to having to learn the science terminology in English. Brian also encountered difficulty with his science course due to the language component:

I have to understand what, like, about theory, so it was very hard to understand what – because teacher speak English, so, I can’t.

Anne also admitted that in biology class at Crescent River Secondary School, she struggled to learn the content:
Because for, like, biology, I was already pretty bad at biology in Taiwan because I wasn’t good at memorizing stuffs, but here, that’s another thing to study because here it’s all in English.

In order to achieve the high standards these students set for themselves, they had to resign themselves to the fact that it would take more time for them to understand certain concepts that are taught in English, particularly when they already faced challenges in the subject area in their home countries. For Luanne, Brian and Anne, the struggle to use fluent English in an academic setting resulted in feelings of frustration as they struggled to achieve success in their science classes even more so than they had in their home countries. Their discourse about their challenges in science refutes the model minority myth that all Asian students are good at science. At least in the case of these three students, they felt that they did not achieve as good of a mark in the subject as they should.

Aside from using English in school, these students described to me how they do and do not use English in social situations. During the interviews, one challenge that I faced was to restrict how often I needed to ask for clarification when I could not understand what these students said to me during the interviews. As I am sensitive to the fact that these students may not necessarily be confident in their English language use (Tsai, 2006), I tried to avoid asking Julie, Luanne and Brian to repeat themselves during the interview; however, there were a couple of occasions where I had to ask them for clarification or check for their understanding and verify that I understood them correctly. Through our conversations, it became clear that the importance of becoming fluent in English was one of the most influential aspects of choosing to study abroad for some of these students. Julie mentioned practicing English as an important benefit of studying as a Visa student:

For here, you can learn English and know different history about different culture.
Anne also admitted that her father was the one who wanted her to learn English while in Taiwan because of her future studies in Canada and also the benefit it would bring to her in the future when she looked for a job; in the end, she felt it benefitted her and prepared her for life in Canada:

Anne: Because he wanted to send me to Canada. And I think he also thinks that English is pretty important for the future, applying for job, or anything, that’s pretty important.
Vivien: OK. Do you agree?
Anne: Yes, I do. That actually make me a lot easier to be in Canada.

Among the many challenges that international students face, they must come to terms with studying in English and trying to build as much of their knowledge of its use both academically and socially. Unfortunately, having the opportunity to practice English language use seemed to be few and far between for several of these students. In spite of attending school and being immersed in the language, they expressed not having much reason to actively use English for communication in their social circles, which were mostly composed of same language speakers.

Through their close and personal friendships with other international students, four out of the five Asian students in this study did believe that “Asians are good at math” applied specifically to international students due to the level of mathematics studied in their home countries. However, their lack of knowledge of how Canadian students perform academically suggests that they do not have close inter-ethnic friendships. All five students revealed that their closest friends in Canada were all international students of the same ethnicity as them. This is not an uncommon result for Asian International students, who often form close friendships with those who speak the same language as them and who are of the same cultural background (Hegginss & Jackson, 2003). While they held the belief that using English was important, many
of these students reverted to using their first language when around their friends, which is not an uncommon result when linguistic minority students interact with one another (Goldstein, 2003).

Both Julie and Luanne revealed that they spoke only Mandarin with their Chinese friends, and that they would use Mandarin in class if they were with their Chinese peers. When asked if her teachers ever said anything to her about English language use, Luanne replied that her accounting and ESL teachers told her “it’s better” to speak English. Luanne’s discourse implied that she believed it would be more beneficial to practice speaking English while at the same time she continued to use Mandarin in social circumstances when interacting with her Chinese friends.

Brian described how he would use both English and Korean at school around his Korean friends:

Brian: In class we have to speak, like, always English.
Vivien: Even with your Korean friends?
Brian: Yeah yeah.
Vivien: Why? Did the teacher tell you?
Brian: Yeah yeah. And then we sitting separately, so, we can’t talk.

When with his friends in class, Brian was expected to speak English and his teachers enforced this rule. In some cases, the teacher was more explicit with this belief by separating Brian from his Korean friends. However, he easily reverted back to using Korean around his friends at lunchtime and said he would only use English around Korean people when he was with second-generation Korean friends:

Lunchtime, uh, we speak Korean, but sometimes we have to speak English because we, uh, played with – hanged out with second generation people. […] They can understand Korean but they can’t speak as well.

Brian’s discourse revealed how he successfully navigated the norms of his Canadian school and his social circles. While in class, he listened to his teacher and used English but when with his friends, he was free to use Korean and did so. At the same time, he knew when it was more
inclusive and appropriate to use English around second-generation Korean students. He adapted his language use based on the situation at hand.

In Anne’s case, she used mostly Mandarin with her Taiwanese friends but she claimed that sometimes they would speak English:

Most of the time, we speak Mandarin. But sometimes we speak – it’s like, 60% and 40%, 60% speaking Mandarin and 40% speaking English, yeah.

Unlike the other students in the study, Anne was the only one who used English at home. As a result, she admitted preferring to speak Mandarin with her friends; speaking the language that reminded her of home was a source of comfort for Anne. Although Peggy claimed to use both English and Mandarin at school, further questioning revealed that she used Mandarin more frequently in her daily life:

Vivien: Do you ever purposefully try to speak in English with your Mandarin-speaking friends?
Peggy: Oh yeah, I have tried several times. [It] doesn’t work. You, like, forget about it.

She only spoke Mandarin at home since her homestay family and all of the students there were Mandarin-speaking. At school, she would use Mandarin to her Mandarin-speaking friends even if they were in class. Peggy did believe that using English was important because “you have to practice to improve it.”

Not only do these Visa students have to get used to using a different language in an academic context, but they also need to find a balance between practicing English and upholding their first language use so as to not “[sacrifice] their home language or culture” (Borgioli, 2008, p.186). Brian’s experiences revealed that he was able to use both Korean and English and knew when it was appropriate to use which depending on the circumstances. Peggy’s experience revealed that using English with her Mandarin-speaking friends felt forced and thus they often
forgot to speak in English. Anne’s discourse suggested that using Mandarin was a coping mechanism as she had to practice English at home. It was interesting that all of these students believed that learning and practicing English was the best thing for them but at the same time they chose to use their first language most often in social circumstances. For these students, coming to a school where there are other international students – that is, other students that understand their unique living situations and the expectations that their parents may have of them studying so far away and for so much money every year – meant that they naturally gravitated to forming close friendships with these students who spoke the same language and were of the same ethnicity as them (Hébert, Lee & Sun, 2003; Goldstein, 2003; Lee, 1999). These students’ discourse suggested that they placed more importance on forming supportive friendships rather than forcing themselves, awkwardly, to use English in social situations.

The motivation for learning and practicing English differed for each of the participants. Rather than improving English in order to improve his social capital (Goldstein, 2003), Brian wanted the results to be the other way around – he felt that increasing his social capital by being friends with English speakers would improve his English skills. Our conversation revealed his belief in the opportunity to practice and use English as being the most important benefit to having Canadian friends. Talking about one of his Korean friends, Brian explained:

Cuz my friend go to U of T, but really hard to make – like, make Canadian friends. He’s really good at English, has no trouble with English, but he said when he goes to class, he can see Korean every class, so he cannot make other, like, Canadian friends.

Brian expressed how by coming to Canada later in his adolescence, he felt that he did not have the opportunity to improve in his English skills because he was stuck forming close friendships only with other Koreans. His statement supported Hébert, Lee and Sun’s (2003) findings that minority students tend to lack improvement in their English language skills when they form close
friendships only with co-ethnic peers. While it seemed that Brian was not in dire need of friendship – he had a closely established circle of friends from what he described in his interview – he believed that friendships with English speakers would ultimately benefit him because he would be able to practice speaking English more often. For Brian, learning and practicing English was part of the cultural capital that he was to gain for material benefit later on – better future career prospects (Gérin-Lajoie, 2005). Being able to converse in English for the interview was one of the benefits of participating in this study, as Brian expressed. When the interview was over and I had thanked him for his time, he revealed that it had been a good experience for him because it was the first time he had had the opportunity to speak English to someone in a long time.

While all of the students in this study revealed that their closest friendships were with co-ethnic students and that their opportunities to practice English with them were limited, not everyone had the same motivation for becoming proficient in English. Peggy recognized the importance of getting the opportunity to practice her English speaking skills more in order to improve, expressing her belief that taking a certain course would benefit her English language abilities:

I think this [media course] might be good because I – because there might be some presentations and I think I need the chance to practice speak in the public.

Her motivation for learning and practicing English was a bit different from those of the other international students in this study since Peggy believed that she would be living in Canada permanently. Thus, she needed to continue developing her identity as a Canadian and full English language speaker since she believed her family was going to join her in the future. Both Brian and Peggy’s discourse revealed the importance that these students placed on learning English, but their differing motivations reveal that not all Asian students are the same and
provide more evidence that the model minority myth ignores the individual realities of each Asian student by attempting to homogenize them.

This chapter dealt with how these students navigated their new classrooms and what their levels of participation were like in their Canadian schools. The different reasons for students’ use of the English language and their belief of their mathematics performances spoke to the individuality of these students. In spite of some of them ascribing to the model minority facet of international Asian students being good at math, they attributed this success to their prior experience with mathematics rather than an inherent race-based reason. All of these students’ individual needs and challenges spoke to their unique identities as mathematics doers and as international students, supporting how the model minority myth ignores heterogeneity among Asian students. In the following chapter, I will discuss how other factors, such as these students’ home lives with their homestay families, impacted their experiences as international students in Canada.
Chapter 6: Discourse on Relationships with Family and Homestay, and Thoughts on Overall Experience

Aside from discussions of the academic changes these students faced when making the move to Canada, my interviews with these five East Asian international students also involved them telling me about their relationships with their homestay families and their families back home. The students’ discourses on their new roles as temporary family members varied depending on their situation and served as more evidence that their unique experiences challenge the homogenizing quality of the model minority myth. We concluded the interviews with the students telling me about their overall impression of what it is like to study as an international student.

Relationship with Homestay Family

One aspect that is missing from much of the research done on international students at the post-secondary level is the relationship that they form with homestay families. As most international students at the post-secondary level would live on their own as they are of the age of majority, this is one factor that is rarely considered or discussed in the literature. The home life is a crucial aspect when it comes to students at the high school level, however. As they are still under the age of majority, they need a legal guardian and they must live with someone who is legally of age. The stress of living away from family and friends for long stretches of time has been documented in studies of international students at the post-secondary level, mostly in relation to psychology rather than education. What has been missing is a study of how the homestay family life affects high school-aged international students’ experiences of studying
abroad. Four of my five research participants lived with homestay families – strangers before they started living together. The line of questioning about how these students negotiated their new roles in their homestays revealed the complex relationship that these teenaged international students have with their homestay families, whether these homestays served as a true substitute for the students’ families or if they acted as little more than landlords.

Julie began her stay in Canada with a family who was different from her culturally and linguistically. Living with a white, Jewish family who spoke only English, she did not feel like part of the family or that she was particularly welcome in the house. One of the first points she mentioned was how the food was different than what she was used to; such changes in household norms and rituals led to Julie feeling restricted in the place she was supposed to call home, as she revealed that:

So…if I go eat something, the kitchen, I can’t cook in and uh, when I eat food she just take everything for me, I can’t pick up myself, it means I can’t take the fork or something.

Julie’s discourse suggested that she did not feel welcome in the home of her homestay family, being unable to take utensils or plates on her own. This disconnect from her homestay family was further described in her daily interactions with them:

I didn’t talk too much with my last homestay. […] Uh, I feel it’s not very comfortable, but, uh, I don’t know why I don’t want to talk to them.

Although she could not articulate why she felt uncomfortable, she described a lack of communication with her homestay family that negatively affected her relationship with them. She explained that the mother of the homestay family would sometimes try to talk to her but the daughter in the family, in her thirties, merely said hello to her and did not try to engage her in conversation.
Julie’s unhappiness led her to talk to her legal guardian and change homestays. Her new homestay family was an Asian family. The mother of the family was Chinese and spoke the same language as Julie. The father of the family was Korean and conversed with Julie in English. She said that she was more comfortable with this homestay family because they showed her that they cared about her in various ways.

Because my homestay like talking to me, and uh…they make food some we like, and uh…we can join […] my homestay family uh, with the father and mother and […] go to somewhere like playing the badminton something.

Julie was able to ask her homestay parents, both teachers in the school board, any questions she had about her schoolwork and they would try to help her. She also said that they would check on her whereabouts. However, in spite of her level of comfort with this new homestay family, Julie recognized that living with any homestay would never be quite as comfortable as it was back home. She spoke about how she had to watch her behavior or check her expectations. She described a complex set of experiences; while she explained she felt comfortable with her new homestay family, she also described a sense of being more aware of her actions than she had been living with her own family as she had to act differently than she would have around her family. She mentioned how back home, she did not have to worry about eating food that she did not like because her mom knew what foods she did and did not enjoy. With the homestay family, there was always a sense of being in someone else’s home and thus, Julie recognized the importance of treading carefully:

I think the relationship is very special because it’s different with the [homestay] parents, so, sometimes we do something it’s very carefully. So, it’s mean, you [can’t] do everything you want […]

Julie expressed her desire to move out the following school year. She said she was turning eighteen soon and would be able to live on her own, so she and a friend were planning on living
on their own outside of a homestay. My own belief that a grade 12 student is not yet able to take care of herself, I asked if her parents were OK with the idea and she answered that they were, and that she already knew how to cook for herself and do her own laundry as she already did these things at her homestay.

Luanne’s living situation was very similar to Julie’s. When Luanne first came to Canada, she was living by herself with a white, Jewish homestay family. Both Julie and Luanne found their homestay families through the school board – that is, when they applied to be international students, they also requested that the school place them with homestay families. The fact that both of these girls were placed with Jewish families is not a coincidence; the area that their school is located in is very close to a prominent Jewish neighbourhood in the Greater Toronto Area. Similar to Julie’s experience, Luanne did not feel that her homestay family cared about her:

[The homestay mother] just say I looks like family, but the Christmas holiday, they just go outside and play, just me stay at home.

For Luanne, the homestay family merely saying that she was part of their family was not enough; their leaving her out of the winter break celebrations made her feel that they did not mean what they said. She also mentioned that the food was the same every day and that she got tired of the bread-based diet, a change from the meals she was accustomed to enjoying back home. Luanne’s guardian, also the school board employee, found her this new homestay where she lived along with Julie. Luanne claimed that,

They actually looks like family. […] If they have a party or plan, they tell me and ask me and sometimes they bring me go outside to play together.

Like Julie, Luanne felt that her homestay family cared about her and did not believe that her higher level of comfort had anything to do with the ethnicity of the family; rather, she claimed
that her current homestay family just cared about her and showed it in different ways, unlike her previous homestay family.

For both of these students who lived with homestay families that they did not feel they truly belonged to, their sense of identity as a family member who was cared about and thought of as important dissipated when they came to Canada. This impacted their experience in Canada as it emphasized their otherness and outsider status and led to their feelings of being unwelcome. Unlike Asian immigrant students who struggle through trying to reconcile the norms and values between their Asian home culture and their Western school culture (Stroink & Lalonde, 2009), Julie and Luanne’s situation exemplified the unique scenario that many high school international students are in – they feel like outsiders even within the place that is supposed to be their home. For these two students, living with white, Jewish families was conflicting as they still identified more strongly with their Chinese cultural norms and routines. By advocating for themselves, these girls’ actions supports Popadiuk’s (2010) assertion that East Asian high school international students “make an active choice towards helping themselves” (p.1542) as they told their guardian about their unhappiness and changed homestays. By living with an Asian family whose values and everyday rituals were more similar to what they had been used to back home, Julie and Luanne were able to reclaim some of their identity as important members of a family. In spite of this positive change, however, these students did not feel completely like true participants in the family’s practices as they were still somewhat outsiders, having to take care of personal matters largely on their own.

One way that these students’ identities changed with their move to Canada was that they had to exhibit a larger sense of independence and maturity. Julie mentioned that with the move to Canada, she learned to cook and did her own laundry, while Luanne revealed that:
Both girls travelled to Canada by themselves and felt that they could take care of the daily living issues on their own, without their parents’ or other homestay parents’ help. When asked if it was hard to take care of matters on her own, Luanne answered “so-so” but that now, after having lived in Canada for a while, she was happy. Being away from her parents, Julie felt that she could not talk to them about everything but rather focused only on the good things:

Because when [you] meet the family one time, if I talk something like I’m feel not good, so maybe they will too much worry about me.

Both girls talked about how at first coming to Canada was a lonely experience; this also came out when Julie spoke of shielding her parents from the truth of how she felt here on a daily basis. She said she would talk to them only sometimes if she had problems at school or with friends. Certainly these girls’ identities as daughters changed with their move to Canada; they no longer relied as much on their parents’ guidance or support and rather had to do more to take care of themselves, a new development that happened at a younger age than it would have had they continued to live in China with their families. Not only did these international students have to exhibit a greater degree of independence when it came to their studies, but they also had to extend such skills into their daily lives outside of school.

Brian had been in Canada for over two years and lived with the same homestay family that he started with when he was in grade ten. Although he attended the same school as Julie and Luanne, his living situation was different from theirs as he did not have the school board employee as his legal guardian and he had not been placed in his homestay by the school board:

[Korean] has many, like, programs like this, many, what is it called, many institute for international visa students. We just contact them, and then they, like, help to come to Canada.
The program Brian spoke of was catered to Koreans who are interested in coming to Canada to study as Visa students; the legal guardians they placed international students with were Koreans, and the homestay families were also Korean. Perhaps the shared ethnicity played a role in how Brian felt that his relationship with his homestay family was close to a true familial relationship, as Brian revealed:

> Uh, they act to me like their son. […] He [their son] is three years older than me. […] They treat like same.

Brian felt that his homestay family did a good job of treating him as one of their own, mirroring their treatment of their son as how they would treat Brian. They also cooked for Brian and did his laundry. His family back in Korea also had a relationship with his homestay as Brian’s mother maintained regular contact with his homestay mother. Brian’s regular routine included spending time with his homestay family on a more spiritual level as he attended church every week with them – something that he did not even do back home, but his mother supported as she was Catholic and felt it was important for him to be placed with a Catholic family. In addition, there was another visa student who was also living at this house, with whom Brian spent his time. Thus, although the blood ties between family members did not exist between Brian and his homestay family as in the traditional definition of a fixed primordial identity (Allahar, 2006), Brian felt that he was still viewed as a son in his homestay family.

Unlike Julie and Anne, Brian never changed homestay families. Having stayed with this one family for over two years suggested that Brian felt as comfortable as a person could feel living with strangers. However, he still expressed that he missed his family:

> They try to […] they think like son, but…although they, like, they care very well [but] sometimes, uh…I miss my parents.
At the same time, Brian believed that being in Canada helped foster a closer relationship with his mother, stating:

At least once a week we talk about Canada. My life. I talk everything, like, start from very small thing. […] Yeah. I think if – if I didn’t come to Canada, uh, it will [be] very hard with my mother, cuz I don’t have [the] chance to talk with my mother in Korea because I get up at 7am and study until 10pm, so I just go to bed every day. […]But in Canada, although once a week, I talk about everything, yeah.

Brian’s identity as a valued family member did not change when he moved to Canada because he found a homestay family whom he felt cared about his well-being and did their best to make him feel like one of their own; furthermore, he did not express any conflict between the cultural practices of his homestay family and his own practices from back home. In addition, the more relaxed school schedule in Canada allowed him, in his opinion, more of an opportunity to connect with his own mother back home; he maintained his identity as a valued son both with his family back home in Korea and with his homestay family in Canada.

Peggy’s relationship with her homestay family was somewhat similar to Brian’s. Peggy’s school board does not provide the option of placing international students with a homestay family. So, her father found her legal guardian/homestay family after doing some research online:

Uh, actually, it’s my dad find the homestay on the Internet because it’s a Chinese homestay and she puts some ads on the website and um, some of my father’s friends, they told him there is a good homestay […].

She described the change between her home life and life at her homestay in Canada:

Uh, I think, uh, at first I felt a little bit, like, uncomfortable because, like, you did not really have the – much privacy, private room, private time, because now you have roommates and people around the room, so that’s the thing I felt the most uncomfortable.

When Peggy first arrived in Canada, her level of comfort was challenged as she was no longer given the same level of privacy that she had been used to back home. However, she became
used to the living situation as there are three other international students living at this homestay along with the homestay family’s son. Peggy described her living situation:

 Uh, they will cook meals, three meals a day, and they provide snacks, beverage, and um, of course bedroom. And they sometimes will pick me up at night if I have, like, some school activities, something. And sometimes they will take us to shopping, and we have to clean our room every week and the mother will do the public areas cleaning and stuff and we just have to do ourselves.

Along with cleaning their own rooms, Peggy said the students also had to do their own laundry. The homestay family being Chinese meant that Peggy was able to maintain some of the same activities and traditions as she did back home:

 Oh, they sometimes will take us out for dinner and they will, like, hold a party or something and celebrate the Chinese festivals.

Peggy’s discourse suggested that she was able to participate in the same cultural practices, such as celebrating Chinese festivals, as she had back home. These similar practices could account for her ease of acculturation. She described that her family tried to keep tabs on her as best they could:

 Um, they spoke to my homestay before I came, and I will also tell them what eat and what we did, by Skype and video calls, so. They can’t – they plan to visit me but they – because they immigrate things, they have to keep their passport because they might get the Visa so they are not sure if they can visit me.

Peggy maintained a close relationship with her family back home by talking with them over Skype several times a week and did not describe feeling the separation as acutely as other students. One reason for this is possibly because she has the promise of her family joining her in Canada to hold on to; another reason is that she has only been in Canada for a shorter period of time than the other students. As Peggy had only been in Canada for the past five months, she could not articulate any major changes she experienced between her start time and the time at
which this interview took place; all she could say was that she got used to her living conditions
and felt a lot better about living at her homestay at the time of the interview.

The most different situation of all these students’ living conditions was that of Anne. She
lived with her aunt and uncle; her aunt was Anne’s father’s sister. Anne described her initial
feelings of coming to Canada as something that was beyond her choice:

When I was young, I didn’t want to leave my family and friends, that’s for sure,
and I was afraid to face new challenges and I didn’t want to live in a different
environment. That would be a lot of challenges. And yeah, I was half-forced to
come here, but after living here for one year, two years, I’m kind of used to it.

During two different points in the interview, Anne described herself as being accustomed to
living in Canada but still feeling lonely:

I feel…I feel, like, kind of lonely, because I miss my younger brother a lot, yeah.
[…] But now, it’s OK now, I think I’m used to it. Just used to it but still kind of
feel lonely.

Although one would assume that being with family would make the transition to Canada easier,
in Anne’s situation the relationship between her parents and her aunt and uncle was strained.
She cautiously described the condition between her parents and her aunt and uncle, being careful
to not sound overly critical but rather to point out the differences between parenting styles and
her aunt and uncle’s reasons for being so protective of her:

Like…the way [my aunt and uncle] teach children are pretty different. Like, my
parents, they are not pretty easy parents but you can, like, if you – the most, the
biggest difference will be if I want to go out with my friends, hanging out and
going to mall, my aunt and uncle, they will be like – because I’m not their own
child, and if I get injured or there’s some issues in Canada, if I get involved in
those, they can’t be afford to get one more daughter for my parents, so they’re
pretty afraid I can get in any trouble outside, so I don’t usually go to mall or
something with my friends.

Anne recognized that her aunt and uncle were more careful than her own parents would be
because they felt more of a responsibility for her as she was so far from home. She knew that
her aunt and uncle prioritized her education because that was the primary reason why she was in Canada in the first place:

Yeah. And they kind of strict, so. Like, I don’t – they’re pretty, they are – because I came to Canada for education, so they want me to do well on my school, they look at my marks, and actually, they want me to do well, so.

Her aunt and uncle’s concern which keeps Anne from being involved in certain activities supports Popadiuk’s (2010) finding that for many East Asian high school international students, they are discouraged from participating in extracurricular activities “due to lack of possibilities, cultural differences about such activities, or a stronger focus on academic work alone” (p.1541). What was different in Anne’s case was that it was her aunt and uncle, not her parents, whom she felt discouraged her from participating in such activities.

As my interview with Anne continued, she revealed that the relationship between her mother and her aunt was very strained, to the point where the relationship between Anne and her mother was also deteriorating:

Um, they usually talk to my father because the relationship is my aunt is my father’s younger sister, so they usually talk to my father. So, they – there’s actually some problem between my aunt and my mother so they don’t usually talk.

At first, Anne maintained regular contact with her parents over Internet but the contact lessened as the relationship between the women in the family worsened:

Um, when I first came here, [I talked with my parents] once a week or twice a week. But now it gets not that frequently. Um, first, it’s because I don’t talk to my mom on Skype anymore, actually, we just message each other because, as I said before, my mom and my auntie, they – there’s some problem between them, so I don’t really want to talk to my mom. And plus that, actually my auntie, she’s always standing or sitting beside me when I’m talking to my dad and my family, so I just don’t want to talk to my mom at home. But if I’m at school or some other places, like, using wireless, then I can talk to my mom, not that frequently.

As a result of the lessening contact between Anne and her mother, Anne was naturally decreasing communication with her father as well; she explained:
I kind of feel it’s unfair to my mother if I only talk to my father, so, yeah. [Talking with my father is] getting less and less.

Throughout the interview, Anne’s discourse revealed that she felt she could not talk to her mother as frequently as she would like as she suggested feeling a sense of loyalty to her aunt and uncle because of the fact that they took financial responsibility for feeding and clothing her:

Yeah. Because in Taiwan, we’re not a wealthy family, [my parents] have to take care of the education of my brother too, and so my uncle and aunt, they decide to pay all those [extra fees] for me.

Unlike the other students involved in this research, Anne had two sources of income funding her studies and stay in Canada; while her parents paid for her to study in Canada, her aunt and uncle took care of her other needs without accepting additional payment from her parents. Because of this, Anne expressed feeling responsible for keeping her spending in check, revealing that she did not go shopping often. She also recognized that her aunt and uncle accommodated her and did what they believed was best for her and her studies; when asked what language Anne speaks with them, she revealed that she spoke English at home, which her aunt and uncle enforced in order for Anne to get sufficient practice.

Since Anne lived with her aunt and uncle, she had closer ties to her homestay family than the other students in this study; however, I got the sense was that she was not entirely happy and was rather resigned to her fate of being lonely. Although she did describe spending time with some friends:

Sometimes we have – they have friends, so we go to have – we visit their friends. […] That’s like, twice a month. And then I have some family friends there, they are close to my age, so we chat.

When asked directly if Anne felt comfortable living with her aunt and uncle, Anne replied yes. However, during the interview she gave the impression that she accepted how things were in Canada. In the end, it seemed she gave a great deal of consideration to how her actions would
affect her family back home; when asked if she would move out to attend university or college, 
Anne replied,

I have to think about the fee, so I think I will still live with [my aunt and uncle]. I don’t want to spend too much money, give too much trouble [to] my dad.

When asked if her younger brother would also study in Canada, Anne answered:

They wanted to send my brother here as well, but because – actually I came here, it happens like, some problems, for example, the problems between my aunt and my mother. And my brother is kind of, mama boy, so he will be so – he just can’t leave my mom, I think.

The guilt that Lee (1994) and Park (2008) mention about Asian immigrant students feeling when it comes to their parents’ sacrifices can be extended to Anne, whose words suggested that she felt guilty about both her parents and her aunt and uncle’s spending money on her education. Anne’s homesickness was very tangible during our entire conversation; her discourse suggested that she was full of regret that things had turned out the way they did for her family. This supports Heggins and Jackson’s (2003) claims that “homesickness and loneliness are pervasive, and depression is common” in Asian international students (p.381). With Anne, her identity as a daughter changed with the move to Canada; she now had to add the facet of grateful and dutiful niece to her identity repertoire all the while trying to maintain her primary role as dutiful daughter to her parents who had sacrificed so much to let her come to Canada. Throughout my conversation with Anne, she was careful to remain respectful of her parents and her aunt and uncle, which aligns with Park’s (2008) finding that Asian immigrant students generally portray their parents’ struggles and pushiness in a sympathetic light. Although Anne was not an immigrant student, her discourse revealed the same level of respect for her guardians as do students telling stories of the immigrant struggle.
The conversations with these international students revealed the huge impact that being away from their home has on their emotional well-being. Depending on how comfortable these students were with their homestay families, their emotional well-being was directly affected to the extent that they took matters into their own hands to change homestay locations; in Anne’s case, she resigned herself to the strained relationship that existed in her family as she believed that there was no other option for her to stay in Canada to study, and did her best to strive for academic excellence. While my conversation with these students did not reveal how big of a role the homestay life plays in their academic successes or challenges, their discourse suggested a new and yet unexplored side of international students’ experiences, which should be further researched. In the next section I will discuss how these students’ relationships with their parents affected their future plans to continue studying and living in Canada.

*Relationship with Parents and Expectations*

Each of the students interviewed in this study revealed how their relationships with their parents have changed with their move to Canada. Some students found that their relationship with their parents became closer by moving across the ocean. Other students experienced a loss of family ties, while yet others described an increased sense of independence as their parents let go of control and expected the students to take care of matters on their own. In spite of the model minority stereotype of Asian parents being overbearing and very involved in their children’s education, these students’ experiences revealed varying degrees of parental involvement in future plans.
Peggy described her parents as being more ‘open’ than her other Chinese friends’ parents; one way that she felt the difference was that they did not send her to extracurricular classes for academic purposes:

I think for most of my friends, yes [they attended extracurricular classes], but I don’t because my parents are, like, they are kind of like, open parents, and they think your life is not always having classes so they don’t send me to other knowledge class. But I do have those, like, dance, piano, those things, my hobbies.

She also believed that her parents were supportive of any decision she would make about her future studies:

They said it’s up to me. […] Yeah. They think, um, we should do what we want to do, like, should follow our own interest.

Since her parents deviated from what Peggy saw as the ‘usual’ Asian parent model of expecting certain academic achievements, she had a stronger sense of freedom and independence when it came to choosing her future path. Peggy did not express feeling any particular pressure and instead was secure in the belief that her parents would support any decision she made about her future career choices. Peggy’s statement interestingly revealed how she believed that the model minority myth of Asian parents being pushy held true, just not to her parents who were the exception. Her discourse demonstrated more evidence that not all Asian parents are created alike and thus the model minority myth does not account for heterogeneity in Asian parents’ expectations.

Anne’s main reason for studying in Canada was because of her parents’ desire for her to have an easier life than what she would have if she had remained in Taiwan:

They think I was – I come from Taiwan, I’m from Taiwan, and because Taiwan is a small island with a lot of big population, so if you want to have a good job, that’s pretty difficult, you have to study pretty hard, they don’t want me to have that kind of pressure, so education in Canada and life in Canada is better.
Anne believed what Wei and Eisenhart (2011) describe as a reality of life in Taiwan – it is “a small densely populated island of over 23 million people. As a result, individual beliefs and values tend to be shaped by a socioeconomic context that often encourages competition” (p.74). Anne did express that she would consider moving back to Taiwan, particularly to work in her first career field of choice:

It depends, what kind of job I want to have in the future, yeah. Like, if I really want to do nuclear [engineering], I can go back to Taiwan and that would be better for me, because for nuclear it’s better to work for government and as I am international student, it’s not possible for me to work for – get government job in Canada, for nuclear, so I will probably go back to Taiwan if I want to work in nuclear. But some other engineering job, I think I’ll stay in Canada.

Although her parents wanted Anne to become a doctor, she believed they would support her career choice in the end:

Anne: [My parents want me to be a doctor] because it’s a easy job. And, like, some of my family members, they are doctors, so they know what kind of life doctor will have, and, yeah. They think it will be easy for my future life if I work as a doctor, yeah.

Vivien: Have you talked to them about going into engineering?

[...]
Anne: Yeah, they think – they respect my decision, I think. As long as you like it, and you can do well in it, you can do whatever you like.

Anne expressed the belief that her parents want her to pursue a certain career because they believed it would bring her a stable life that would provide for her future family, which extends Park’s (2008) assertion of immigrant parents driving their children to succeed in school to secure economic stability to the East Asian international student’s parent. Although they are not immigrants, Anne’s parents still desired her to achieve financial stability in her future career choice.

Parental influence was especially clear during Brian’s interview. The main reason he was in Canada to study was to acquire English language skills:
Yeah also, my father, he told me, he thought English was very important, so […] actually, he tried to study English but he failed in Korea, so he wanted to come here, but he was, like, working so he couldn’t come here, so he let me go.

When asked for some of Brian’s own reasons for wanting to study in Canada, his response suggested his father’s wishes remained first and foremost:

Uh, cuz my father always say English is important, and I want to experience new, like, new culture.

Brian’s reason for wanting to study in Canada directly mirrored why his father wanted him to study in Canada – because it is important to practice English for future capital when securing a job. Brian implied that his father believed that the most important part of the experience of studying in Canada was to become fluent in English for its market value; this is in line with Gérin-Lajoie’s (2005) study which contrasted one family’s use of French language in Canadian society compared to a second family and discovered that one family’s belief in its importance was for the marketability of the language use rather than for participation in French cultural activities. In Brian’s situation, his first and dominant language, and that of his family, is Korean; his cultural practices are rooted in Korean language and heritage rather than in an English-dominant society’s practices. His second language, English, was of important market value for his future success but he did not participate in English-language based activities. Brian’s discourse further revealed more evidence that his cultural practices are rooted in his Korean identity. He stated that he planned to return to Korea so that he could serve his conscription in the Korean military. He also wanted to find a job in Korea:

Yeah, cuz I have to go to – actually, I want to go back to Korea. […] Yeah. If I have a chance to transfer to Korean university, I want to.
Brian’s motivation for doing well in school in Canada was because he specifically came to Canada with the goal of obtaining higher grades than he would have in Korea, and because he wanted the opportunity to study in his post-secondary program of choice:

Because Toronto – like, Korean institutions, like, they recommend Toronto cuz they – I hope to go to university in Canada, they recommend University of Toronto or Waterloo, cuz I want to go to civil engineering, so, […] Uh, because – I never think about detail but…I think, in Canada, I heard that, like, high school, like, to get high score, it’s easier than Korea, so I can go where I want, university program, so, if I still in Korea, I just – I can’t go what I want, university, so. Actually, I want to take my own program, my future, so.

Brian’s experience served as evidence of Popadiuk’s (2009) assertion that international students are often sent elsewhere to study if they “could not meet the high competitive standards at home” (p.230). Myers, Zhong and Guan (1998) also assert that only a small portion of China’s population has the privilege of getting a higher education due to limited resources. Both Brian and Anne describe the high level of competition in their home countries as a major factor that influenced their parents’ decisions to send them to study in Canada as international students; although the yearly tuition fee is high, it is a trade-off for having the opportunity to go to the university program of their choice in Canada.

Parental expectations also played a role in Luanne’s decision for her future pathway; Luanne’s parents wanted her to pursue a degree in nursing and expected her to do well in school, providing extracurricular support in the form of remedial classes in China. Luanne’s discourse suggested that she maintained the same expectation for herself, and this pursuit of her goal has resulted in her only liking courses where she achieved a certain mark. Luanne claimed that although she did not like biology, she would like it more if she got better grades in the subject. Ultimately, even on her own away from her parents, Luanne kept her sight on her goal of
attending a university in Canada. She said that marks were “very important” to her because she was aware of their impact on her acceptance into post-secondary programs. Luanne added:

Yeah. But my [parents] want me go to university. […] Because, because [for] some job see they think the university is [better] than college.

Her opinion aligned with Ttrytten, Lowe and Walden’s (2012) findings in which one of their participants connected “her desire for good grades to her desire for economic attainment” (p.453). For Luanne, ultimately she desired good grades because they would lead to a desirable post-secondary pathway, which would then lead to a stable career.

In Julie’s discourse, there was no indication of the influence her parents had on her future career choice or the importance of marks. Julie herself liked the idea of studying in Canada because she felt she would have more time to learn properly:

Because in China, we study it’s always so busy. Oh…we don’t have enough time to learn something we like or do something we like. So, I decide to come to Chi – Canada.

Julie was not sure whether she would return to China or not; when asked why she would stay in Canada, she gave attending a Canadian post-secondary institution as the main reason:

Because in high school, I study here, so I just want to go university. […] Maybe I want uh, first finish university and decide I’ll stay here [or not].

Basically, when it came to her future, it seemed that Julie’s parents gave her room to make her own decisions.

[…] my parents told me if [I] want [to] stay here, so I stay here. If I want, go back to China.

Julie did not believe that her parents impacted her future pathway as much as the model minority myth suggests Asian parents do. Her experience, along with Peggy’s, suggested that not all Asian parents have a strong hand in determining what future pathway their children will pursue
and lends more credence to the myth’s detrimental effects by homogenizing all Asian students and their experiences.

One way in which parents do have a hand in these international students’ studies in Canada is through the financial support they provide by paying tuition fees. These students were very aware of how much money their parents pay for their education and, in some cases, it impacted their belief of how hard they were studying or should be studying. Luanne displayed knowledge of and respect for her parents paying money for her to study internationally; she mentioned the financial aspect as a reason why she had to work hard at school. Although Luanne and her parents were not immigrants to Canada, a similar level of guilt was apparent when she mentioned the financial aspect of studying in Canada; she recognized that her parents made a financial sacrifice in order to increase her future prospects (Lee, 1994; Park, 2008).

Even though Julie claimed to know how much money her parents were spending on tuition fees, she did not indicate that she felt it was too much or that she felt pressured to study harder because of the fees. Julie and Luanne both enjoy the use of a credit card that they can use when they need money; both of them denied their parents ever telling them that they were overspending. The same resulted from my discussion of finances with Peggy, who has a debit card which her parents load money into the account back in China; Peggy stated that her parents have never told her what to spend or try to limit her because she was always good at self-regulation when it came to money:

Oh, they do not have to tell me this because I will plan my money. […] they never told me how much you can spend because I always control my money.

Peggy also displayed ignorance of what the international tuition fees were; the fees did not seem to be a major concern or a motivating factor for her.

Peggy: They have told me, but I forget.
Vivien: So they don’t – you don’t really talk about money to them?
Peggy: Actually, I talk about money because I learn about accounting and I’m crazy about money stuff, but I don’t really know about my tuition stuff.

As her personal interest lay in money matters, Peggy talked to her parents about finances but when it came to her tuition fees as an international student, she did not display any level of concern over how much her parents were paying; thus, this matter did not seem to influence how hard she tried in school.

Anne, on the other hand, very clearly expressed a need to work hard and achieve high results for the sake of her parents’ hard work not going to waste. Although she hesitated at first when answering the question about finances, she quickly opened up about how the matter of the tuition fees influenced her studies, how she spent her time and her future goals:

Vivien: Um, so you said you know how much your parents are paying for you to come to school here. Do they talk about it a lot with you, or –?
Anne: They don’t really talk about – yeah, they actually do, yeah.
Vivien: So what do they usually say to you about it?
Anne: I say I know, and I’ll – that’s why I want to get high marks, because I’m applying for university, I need to get over 95 to get scholarships, and depends on your mark you can get different – like, full scholarship or only part of it. Because, like, the amount of scholarships they give for maximum is actually not even half, not even a quarter, sometimes, I have to pay for total, yeah.

The impact of such a large sum of money affected how Anne perceived herself as a good student. Her high expectations of herself were clear when she spoke about her achievement in physics; although she claimed that she was not good at the subject, she revealed that her mark in her physics course was 88, which is higher than the provincial standard of achievement. Although I had previously predicted that the high socioeconomic status of these students’ families would result in a very different story from that of other minority students who have low socioeconomic status, Anne’s discourse makes it clear that she feels the weight of her parents’ financial sacrifice. Brian and Luanne also mentioned their feelings about the financial aspect of studying
internationally, and although these students do not go through the same struggles that lower-SES students would as mentioned by González (2004) and Lubienski (2007), it is clear that some international students may still face emotional difficulties when it comes to accepting their parents’ sacrifice for them, and it may serve as a reason for some of them to strive for financial security through steady careers. In Brian’s case, his parents displayed the attitude of many Asian parents when they told him to concentrate on his studies first and foremost:

Yeah. I know [how much money they pay]. […] My parents says don’t worry about money, just – you have to just – you just study.

Brian’s statement aligned with Li’s (2006) assertion that some Asian parents will tell their children to only focus on their studies which is one reason for the existence of the model minority facet that hardworking Asian parents spend their finances on educating their children. Furthermore, by telling Brian to focus on just his studies, his parents reinforced the Asian family structure that positions the parent as provider and child as subservient (Kao, 1995).

The discourse of these five students on their relationships with their parents and their expectations revealed that there is heterogeneity even within this small group of East Asian international students. Contrary to Trytten, Lowe and Walden’s (2012) assertion that the “[model minority myth] facets of extreme intelligence and prestigious careers” could push Asian students to pursue careers that are not personally fulfilling (p.457), these five participants seemed to assert their own pathway and choices for their future studies and careers. Their statements about the influence, or lack thereof, of finances on their studies also indicated how individual international students’ backgrounds and cultural practices need to be taken into consideration when examining their academic achievements and identity formation processes as they study abroad.
To conclude the interviews, I asked these students about their final thoughts on being international students and any recommendations they would have for other students interested in studying abroad. The last section of this chapter highlights their responses.

Participants’ Overall Experience and Final Thoughts

The five participants in my study agreed with Cudmore (2005) that studying internationally is good preparation to live in an increasingly global society where cultures and ethnicities all mingle together. As Popadiuk (2009) found, “despite challenges in their transition, participants stated that their time as unaccompanied youth was a rewarding and worthwhile experience” (p.231); the same findings were discovered for the East Asian high school international students in this study. Students like Julie saw the value in studying abroad for “personal interest, curiosity, and a sense of enjoyment about going abroad” (Chirkov et al, 2008 as quoted in Popadiuk, 2009, p.230), as she explained:

 […] You can learn English and know different history about different culture.

Julie’s statement mirrored the results of Huang’s (2009) study in which the participants also believed that the experience of studying in North America was “very challenging, but positive and beneficial to their graduate study” (p.341). Both Chen (2006) and Cudmore (2005) found that international students at the graduate level believed Canada to be more tolerant and accepting than the United States; Brian echoed this sentiment when he described how he felt that Canada was a more accepting place because people were more understanding of his less than perfect English language use:
most people understanding my language, like that; about my speaking English. If I – I’m not good at speaking English, they understand about that. […] My friends in U.S.A., like, he said in U.S.A. has many racism.

Of course, there are challenges of studying internationally. One recommendation that Brian had was that international students should come to Canada at an earlier age if they wanted an easier time to form interethnic friendships:

Cuz I think, high school student is not good, like…like, if they have experience with junior school. Like, I saw two friends, he, like, he came to Canada, like, grade 7, like that. And one people was grade 9. But grade 7 friends, he already have a lot of, like, Canadian friends. But grade 9, he also – he also come early, but he really hard to meet – make Canadian friends.

In Brian’s experience as an international student, the most regretful part was that he did not make non-Korean friends; in this way, his experience supports Popadiuk’s (2009) finding that some international students find it more difficult to make friends than they had hoped. Brian’s desire to have made friends of different ethnicities also support Stroink and Lalonde’s (2009) arguments that by identifying more strongly with one culture – in Brian’s case, his Korean one, by living with a Korean homestay family and socializing with Korean peers at school – that outsider status by the dominant culture could occur.

One recommendation that Peggy made was that interested students should practice skills of independence and self-reliance in order to enjoy their experience studying abroad:

Hmm…um, I think they should learn to be independent, and some living skills, they have to learn. And also, they should try to learn how to, like, plan your studies […]. It’s pretty much on yourself. You have to know what you want to do and you have to keep yourself doing it. […] I think it’s a good experience for life.

This sense of autonomy that Peggy believed was necessary for a good experience supports Popadiuk’s (2010) findings where the students being in control helps to “ease the transition stresses” of being an international student (p.1532); Heggins and Jackson (2003) share similar results in which international students at the college level who exhibit more independence skills
adjust to their new environment more easily. Peggy’s opinion also supported the suggestions made in Huang’s (2009) study that Chinese graduate students used to the Confucian way of learning in China would be better prepared for the Socratic method of learning in North America by becoming more active in the classroom and reading ahead of time to prepare for lectures.

When asked what recommendation Anne had to give to students considering studying abroad, she brought up once more the fact that the tuition fee is very steep:

> I have to think – you have to look at the ability, if they can pay the fee, yeah. If they can, then yeah, it’s a nice choice for them. You can learn many new things here, you can see bigger world, yeah. I think it’s good for them.

Luanne answered similarly, stating that international students need to work hard because of the fees that their parents pay.

As revealed in these two analysis chapters, these five international students revealed their differing levels of agreement with the model minority myth of Asian students excelling in school, as well as their different experiences with their homestay families and overall experiences as international students. Each of their identity formation as East Asian international students, as daughters and son, and as mathematics doers was differently affected by their experience studying in Canada. These five students’ unique discourses speak to the need for continued study of how international students fare in the Canadian school system at the high school level and to treat Asian students as having different abilities and goals, as well as continued study of how their cultural practices influence their identity formation when they make the move to study abroad.
Chapter 7: Conclusion

Overall, the five students that participated in this study felt their experience studying in Canada was worthwhile and that the benefits outweighed any discomfort or difficulties they encountered. In answering my primary research question – what are these students’ experiences in high school math classes – I gained some invaluable insight into these students’ discourses on their identity formation process as mathematics doers and as teenagers studying in a foreign country. The official discourse of the Ontario Mathematics Curriculum is that it is important for the Canadian education system to keep all of its students in mind to help them achieve their individual future career paths (Ontario Mathematics Curriculum, 2007). The interviews revealed that while these students did not describe their math education in Canada as being “customized” to their needs, they did all believe that studying mathematics further would be crucial to developing their future careers. The discourse of these five international students suggested that their individual experiences emphasized how these students are unique individuals within a traditionally homogenized group of Asian students and embodied how simply being a member, albeit a strong one, of an ethnic group does not necessarily guarantee that one will agree with the behaviours or beliefs associated with that group (Lee, 1999).

Advancement of Knowledge

In describing the differences between school in China or Korea and school in Canada, these students expressed some beliefs that aligned with previous findings of research conducted at the graduate student level. Smaller class sizes, longer periods, and fewer courses taken per
semester were some of the differences mentioned. Like post-secondary international students in past studies by Myers, Zhong and Guan (1998) and Huang (2009), these five students perceived an increased level of interaction between teachers and students in their Canadian classrooms, which, in most of these students’ cases, led to their enjoyment of their school experience here. They revealed in their discourse that their roles as students evolved as they expressed valuing the North American teaching techniques such as classroom discussions and increased student participation. Contrary to assertions made by Stroink and Lalonde (2009) about bicultural students, the students in my study did not explicitly express any feelings of marginalization or exclusion from participating in their new communities of practice; rather, their discourse suggested that they adjusted to the new school norms and expectations, even at the same time trying to manage their expectations of how well they would do in school.

These students’ beliefs that Canadian learners must be more self-directed align with earlier findings by Cheng and Guan (2012) and Huang (2009) that international students must become used to the new academic norms of exhibiting independence and self-motivation in the Canadian school system in order to successfully navigate their new learning environment. In spite of such changes like the relaxing of school rules and not having teachers monitor or discipline them as they would back in China or Korea, these five students experienced more success in their Canadian class compared to in their home country’s classrooms as they quickly adjusted to the norms and values of the Canadian school system. Their Canadian math communities of practice impacted how these students’ identities as math doers evolved with their move across the ocean. Their normative identities in math classes changed as they became used to new classroom practices and routines (Cobb & Hodge, 2007) – from what they shared, it seems that their move to Canada influenced their identity formation as they came to value
different classroom practices and expectations of themselves as independent, active learners. By studying in Canada, it appears that these five students’ identities as students changed as they became more acclimatized to the Canadian education system that favours independent learners (Cheng & Guan, 2012). From their discourse, it seems that their sense of independence was also heightened due to the fact that their parents had to release some of their control, and the students believed that they became more self-reliant at a younger age as they lived on their own in a new setting and had to take care of school issues and personal matters on their own.

In discussing the model minority facet of Asians being good at math, these students revealed their beliefs that prior training and experience with a subject is the strongest indicator of their own higher levels of success in math classes in Canada and, in general, the reason why Asian students are viewed as being good at math. One very interesting finding that stressed the heterogeneity of Asian students’ experiences is how most of the students interviewed believed that the model minority myth of Asians being good at math applied only to Asian students who had previously been educated in Asia. Their statements revealed that they did not believe in any racial explanation for why Asian students achieve high academic standards; rather, they believed that the higher levels of success can be attributed to the experience these students have of learning more material and at a faster rate in their home countries. While these students’ discourse about Asian students worked against the traditional model minority myth, at the same time their statements homogenized the group of Asian international students as all achieving higher success results than students who had been educated in North America all their lives. These students’ contradictory statements were very interesting as they believed one thing for some students but also believed differently for themselves, as they asserted that Asian students educated in Asia were smarter than other students but at the same time, for some of them, their
own achievements were not good enough. Thus, their discourse revealed contradictory statements as Mills (2003) stated discursive formations do.

Another area where these students’ discourses differed was in the discussion about the difference between math instruction in Canada and math instruction in their home countries. All of the students agreed that math instruction was ‘easier’ and less in-depth in Canada, which allowed them to feel that they were achieving higher levels of success with the subject in school. However, their opinions on whether or not this was beneficial divided them. As Peggy explained it, the fact that there is less depth and more breadth in Canada can be viewed as a benefit of the Canadian curriculum as there is more opportunity for students to study the subjects that interest them and achieve more success in their field of choice. Her discourse aligned with that of the official discourse of the Ontario Mathematics Curriculum that states its objective as helping all students achieve their goals. On the other hand, Anne believed that math instruction in Canada lacked the depth that she needed in order to be better prepared for her future career in engineering. These differences in discourse refuted the model minority stereotype that assumes all Asian students belong to a homogeneous group with same beliefs and motivations; such difference speaks to how the students’ individual goals are an important determining factor for how much they value a subject or course material and their level of investment in it.

Other ways that these students demonstrated heterogeneity amongst themselves was by their varied levels of enjoyment of mathematics as well as their motivations for studying internationally. These students’ goals for studying abroad – whether to return to their home country and participate in their home country’s cultural community, or to make a permanent move to Canada as an immigrant – needs to be taken into account in order to broaden our understanding of this group of minority students. Furthermore, Brian’s statement about Korean
students needing the discipline that they received back in his home country because they did not follow teachers’ instructions well was more evidence that, in Brian’s perspective, the model minority myth that homogenizes all Asian students as being very obedient and attentive students is not an absolute truth. These students’ discourses on the topics of school and math revealed interesting contradictions and beliefs about their identities as math doers and as international students.

Another finding was that in spite of all these students taking English language classes in their home countries, some of them expressed their continued struggle with the language aspect when it came to learning their school subjects. The fact that Luanne, Anne and Brian expressed that their language skills hindered their progress in science classes indicated that the model minority myth ignores these students’ struggles and overgeneralizes their abilities just as Zhao and Qiu (2009) postulated. These students admitted to mostly using only their first language in social situations as their closest friendships were with co-ethnic peers, which supports Hébert, Lee and Sun (2003), Goldstein (2003) and Lee’s (1999) findings that minority students tend to form co-ethnic friendships in order to pool resources and support one another. The lack of inter-ethnic friendships formed suggested that these students’ experiences mirrored those of Popadiuk’s (2009) research participants who discovered that international students at the high school level are not prepared for the challenges they face in forming new friendships. While the participants described knowing that they should practice English, their contradictions showed that their experiences were complex. In spite of Brian’s dismay about his lack of interethnic friendships, he showed competence in navigating the social context depending on who he was talking to and in what context (in the classroom or socially); his experience aligns with
Moschkovich’s (2002) insistence that it is crucial to understand the context and reasons why a bilingual student chooses to use one language over another in a certain situation.

Other changes these students encountered and worked through involved the home setting. Previous studies of international students at the post-secondary level have not explored differences in home environment or relationship with homestay family as most of those post-secondary students live on their own while studying overseas. Since my participants were below majority age, their relationships with homestay families and their families back home adds to existing research on international students’ experiences living and studying in Canada. My participants revealed that they felt happiest with a homestay family who showed that they cared for them as a valued family member. At the same time, some of these students expressed homesickness and, in Julie and Luanne’s case, a desire to change their living situations. Such contradictions implied how in spite of these students feeling like they were part of a family, they still wanted to exhibit some more control over their own lives just as Popadiuk (2010) asserted about high school East Asian international students.

In addition to the change in home dynamics, some of the students’ awareness of the tuition fees their parents pay was another factor that affected their studies. Some of the participants’ discourses closely mirrored the immigrant experience (Lee, 1994; Park, 2008); on the other hand, for a couple of the students it did not seem that the tuition fees had any impact whatsoever on motivating them to study harder. Such differences again point to more evidence that there is heterogeneity within groups of Asian students that the model minority myth ignores.

The discussion I had with these students about parental expectations and influences led to varied results. While many of these students had taken extracurricular classes back home in order to move ahead academically, they explained how once they made the move to Canada they
no longer took such classes or felt the need to do so. In this way, their experience was different from the immigrant parents in Li’s (2006) study who choose to spend more money to educate students outside of regular classes here. This indicates how the model minority myth fails to account for differences in the backgrounds and prior learning experiences of Asian students. Peggy’s discourse on her family’s influence on her studies also provided more contradictions against the model minority stereotype – she believed that most Asian parents push their children to take extracurricular classes and influence what their children will study, but at the same time her parents were an exception to this rule. Such contradictions show what an interesting view these students provide on their families and their experiences studying in Canada. Lastly, their parents’ influence on these students’ future pathways provided more evidence of the lack of consideration the model minority myth has for individual Asian families’ values. These students’ discourses on their parents supporting their future career choices refuted the stereotype about Asian students in the model minority being pushed into careers that are not of their choosing (Trytten, Lowe & Walden, 2012). These students expressed high expectations of themselves to continue earning good marks in school so that they could study in the post-secondary program of their choice.

*Future Research*

A point of discussion missing from my conversations with these international students was to what degree they felt that their stories and experiences were included in the curriculum. When it comes to minority education, this is one recommendation that several researchers have made in order to create a more equitable learning environment for all students (Civil, 2007;
Gutiérrez, 2007; Lubienski, 2007). Wing (2007) agrees that it is crucial that the curriculum reflects Asian students so that they do not feel like outsiders. While the students I interviewed did not mention their feelings of inclusion or exclusion, at the same time most of them were willing to lump all internationally educated Asian students as being good at math, which shows that, to some degree, they accept the stereotype that “all Asians are all alike” (Wing, 2007). Future research involving East Asian high school international students should delve into what these students feel is their role in the curriculum, how they feel they are represented or underrepresented in the schools they attend, and what unique attributes set them apart from each other.

Future studies should also investigate how international students at the high school level are being prepared for the changes that will impact their roles as students in new learning communities. Do they understand that they are moving from the Confucian learning environment that allows them to be more reliant on the authority figure to the Socratic learning environment that demands they rely more on their own skills (Huang, 2009; Cheng & Guan, 2012)? In addition, more exploration into when and to what end international students use their first language will add to existing research on bilingual learners. Deeper discussion of the issue of finances should also be raised in order to establish a connection, if any, between high school international students’ emotional well-being and academic achievements to their knowledge of tuition fees. Future studies should also continue to explore the effect of the homestay family on international students’ well-being and academic achievements, and in particular what effect living with homestay families that have drastically different norms and values has on the students’ experiences studying abroad. Anne’s situation speaks to the fact that even within this group of five students, living with relatives or people of the same ethnic background does not necessarily
guarantee a comforting home environment; such differences in international students’ living situations should be further researched and discussed as part of their ongoing identity formation.

These five students’ discourses on their experiences here suggest that international students will continue to seek studying in Canada in order to be better prepared to live in a global society and navigate the various norms and values of different communities of practice. As such, continued exploration of how these students’ experiences studying abroad contribute to their identity formation is needed in order to include these students in discussions about minority education and to create more equitable mathematics instruction that helps them, and all students studying in Canada, achieve their goals. Their discourse also serves to continue to challenge the model minority stereotype which is still prevalent in many school communities. Even though these students may not be making Canada their permanent home, they deserve to have a voice and their experiences need to be included so that we can form a more complete picture of how the Canadian education system meets the needs of all our learners.
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