

A Comparison of Adjustment to University between Immigrant and Non-Immigrant Students

by

Veta Chitnev

M.Ed., Moscow State Regional University, 1987

Thesis Submitted in Partial Fulfillment of the
Requirements for the Degree of
Master of Arts

in the
Educational Psychology Program
Faculty of Education

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SIMON FRASER UNIVERSITY

Summer 2014

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Approval

Name: Veta Chitnev
Degree: Master of Arts
Title: *A Comparison of Adjustment to University between Immigrant and Non-Immigrant Students*
Examining Committee: Chair: Dr. Maureen Hoskyn
Associate Professor

Dr. Lucy Le Mare
Senior Supervisor
Associate Professor

Dr. Elina Birmingham
Supervisor
Assistant Professor

Dr. John Nesbit
Internal Examiner
Professor
Faculty of Education

Date Defended/Approved: August 22, 2014

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Abstract

Due to large immigrant student numbers enrolled in post-secondary education in Canada, adjustment of immigrant youth to mainstream culture at the university level is an important issue for Canadian educators. However, research on immigrant students' adjustment while attending Canadian educational institutions is scarce. The purpose of the present thesis was to address this gap by examining Canadian immigrant students' adjustment to university and to identify potential protective factors that predict immigrant students' successful adjustment. The adjustment of immigrant students to university was examined by comparing immigrant and Canadian-born students on attachment to university and academic, social and emotional adjustment to university using the Student Adjustment to College Questionnaire (SACQ). Participants were 75 students from two Canadian universities. Results showed that Canadian-born students scored higher in attachment to university than foreign-born students, but did not differ on the other adjustment scales. There were similarities and differences between the two groups in how family demographic and relationship variables related to university adjustment. Neither age at arrival nor years in Canada were found to relate to university adjustment in the immigrant group. While raising new questions, the present study contributes to existing research on the adaptation of foreign-born youth to the host culture as well as to findings on students' adjustment to university.

Keywords: Adjustment; Canada; immigrant; paradox; students; university

This thesis is dedicated to my parents; to my father, an outstanding physician, scientist and a wonderful man, and to my mother, the bravest woman I have ever met.

Acknowledgements

I would like to express my deepest gratitude to my research supervisor, Dr. Lucy Le Mare, who allowed me the freedom to pursue my personal interests in educational psychology, and who always found the time to provide me with her valuable feedback and moral support throughout the process of completing this project. I am greatly indebted to my co-supervisor, Dr. Elina Birmingham, for her thoughtful comments and generous guidance in refining this project. I would also like to thank Dr. John Nesbit for providing valuable recommendations to the final copy and for making the final stage of the thesis such a positive experience.

I am very grateful to my first teachers at SFU, Dr. Jeff Sugarman and Dr. Phil Winne, who taught me to be reflective and analytical in my work. Admiration and thanks must also be extended to Dr. Esma Emmioglu who seemed to accomplish the impossible; she fostered in me a love of statistics.

I wish to acknowledge Dr. Maureen Hoskyn, who balanced support and challenge in my final course at SFU, and I also wish to thank Dr. Paul Neufeld for finding the time for reading my drafts and providing insightful recommendations that improved my writing skills.

I would like to express my appreciation and thanks to Bridget Fox, Bill Ashton, my fellow students and my study participants whose contribution and support were vital for this project.

I could not have completed this work without the love and support of my family; my parents, Alexander and Svetlana, who always believed in me, my husband, Alex, and my daughter, Kate, for their help, their valuable advice, emotional support and for taking care of me during this pursuit.

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Glossary

First generation immigrants	The term refers to foreign-born Canadian citizens or residents (Statistics Canada, 2011).
Second generation immigrants	The term refers to Canadian-born individuals who have at least one foreign-born parent (Statistics Canada, 2011).

Chapter 1.

Introduction

1.1. Overview

According to the most recent data provided by Statistics Canada (2013), there are 6.8 million foreign-born residents in Canada who account for 20 percent of the total population. Between 2006 and 2011 approximately 1,162,900 immigrants arrived in Canada, most coming from Asia and the Middle East (58.3 percent of all immigrants) (Statistics Canada, 2013). For example, in Richmond, British Columbia, immigrants made up 57.4 percent of the population, and out of this foreign-born population, 81.6 percent came from Asia and the Middle East (City of Richmond, 2007). Immigrants tend to settle in the three largest metropolitan areas – Toronto, Montreal and Vancouver (Statistics Canada, 2013). For instance, in Vancouver there are 913,300 immigrants accounting for 40 percent of the total national immigrant population (Statistics Canada, 2013). Immigrant population varies not only by the place of origin, but also by the number of generations an individual or an individual's ancestors have lived in Canada (Statistics Canada, 2011). The term “first generation immigrant” refers to foreign-born individuals, and according to Statistics Canada (2011) there were 7,217,300 first generation immigrants, representing 22 percent of the total population. “Second generation immigrant” refers to Canadian-born individuals who have at least one foreign-born parent. In 2011 this group included 5,702,700 individuals, or 17.5 percent of the total population.

In Canada, immigrants tend to place a high value on education, and they encourage their children to obtain university degrees (Association of Universities and Colleges of Canada, 2011). Immigrant youth actively participate in high school and post-secondary education (Anisef, Brown & Sweet, n.d.; Childs, Finnie & Mueller, 2010). For instance, in Toronto, first- and second-generation immigrant students make up 80 percent of high school enrolments (Anisef et al., n.d.). In the Toronto School Board District, more than 70 percent of students who

emigrated from East Asia and 52 percent of immigrants from Europe confirmed admission to university (Sweet, Anisef, Brown, Walters & Phythian, 2010). Moreover, Childs et al. (2010) found that immigrant youth have a 57 percent university participation, which compares to a 38 percent university participation rate among the non-immigrant population. Aspirations for university education are particularly high among immigrant families from China, as evidenced by the 88 percent of these first-generation immigrants who attend university (Childs et al., 2010).

Due to such large immigrant student numbers enrolled in post-secondary education in Canada, adjustment of immigrant youth to mainstream culture at the university level is an important issue for Canadian educators. However, research on immigrant students' adjustment while attending Canadian educational institutions is scarce, and studies conducted in the US and Europe yield contradictory findings. For example, some of these studies report immigrants to be more poorly adjusted than native-born youth (Atzaba-Poria, Pike & Barrett, 2004; Kolaitis, Tsiantis, Madianos & Kotsopoulos, 2003; Leavey, Hollins, King, Barnes, Papadopoulos & Grayson, 2004; Perierra & India, 2011) while others report that immigrants fare better than their non-immigrant peers (Berry, Phinney, Sam & Vedder, 2006; Dimitrova, 2011). Some researchers found no difference between the psychological well-being of immigrant and native-born youth (Sam, Vedder, Liebkind, Neto & Virta, 2008). Most of the above research has been conducted on high school students with very few studies addressing the adjustment of university students. The purposes of the present study are to address this gap by examining Canadian immigrant students' adjustment to university, and to identify potential protective factors that predict immigrant students' successful adjustment.

1.2. Social-Emotional Adjustment of Immigrant Children and Youth

The construct of "adjustment" includes psychological well-being and satisfaction as well as social skills to "fit in" (Searle & Ward, 1990). The concept of "university adjustment" is even more multifaceted, since in addition to social-emotional adjustment it includes students' academic achievement and attachment to university (Baker & Siryk, 1986).

Research provides sufficient evidence to demonstrate that immigrant children and youth are at risk of poor social, emotional and behavioural development due to difficulties in

adjustment to their new culture (Atzaba-Poria et al., 2004; Kolaitis et al., 2003; Leavey et al., 2004; Perriera & India, 2011; Potochnick & Perreira, 2010). For example, in Kolaitis et al.'s (2003) research, the psychological well-being and behaviour of 276 children aged 8–12 years old who immigrated to Greece from the former Soviet Union were assessed. The control group was a matched sample of native-born Greek children who attended the same schools as the immigrant children. The findings showed that the immigrant children scored higher on being victimized, and they were more often withdrawn and unpopular among their peers compared to native-born children. The immigrant children also showed excessive worries, stress-related somatic complaints, and socialization difficulties. There was a significant difference in the frequency of temper tantrums experienced by female participants: native-born girls experienced significantly fewer temper tantrums than immigrant girls (Kolaitis et al., 2003).

In Atzaba-Poria et al.'s (2004) comparative study of 66 Indian immigrant and 59 native-born children between the ages of 7 and 9 years conducted in Great Britain, the children's behaviour and psychological well-being were assessed by their teachers and parents. No differences between the groups in externalizing problem behaviour were found; however, the study showed that the immigrant children exhibited more internalizing of problems, such as depression, anxiety, withdrawal, and stress-related somatic complaints (feeling dizzy and overtired). The researchers concluded that these problems might have arisen as a reaction to identity confusion and the experience of prejudice and discrimination in British society (Atzaba-Poria et al., 2004).

Leavey et al. (2004) obtained similar findings in an epidemiological study of 465 immigrant and native-born children also conducted in Great Britain but with older participants (mean age was 13.2 years). Immigrant children in this study experienced more emotional difficulties and peer problems compared to native-born children. The authors of the study speculated that due to living under the pressure of uncertainty about resident status in Great Britain, these immigrant students chose a strategy of attempting to be invisible. While their distress was not evidenced through aggression or other behavioural problems, it may have manifested itself in the form of internalizing problems, such as depression and anxiety (Leavey et al., 2004).

In a large-scale study that included almost the entire child-immigrant population of Belgium (N=1,240), significant differences were found in behavioural and emotional problems between immigrants and a native-born sample of 402 children (Derluyn, Broekaert, & Scyuten, 2008). Immigrant children showed higher levels of avoidance symptoms, post-traumatic stress disorder and peer problems; however, they scored lower than native-born peers in anxiety, conduct problems, and hyperactivity. Factors such as living conditions and traumatic events were shown to influence the emotional well-being of the participants. The researchers concluded that those immigrant adolescents who had experienced a higher number of traumatic events were at greater risk of social-emotional problems (Derluyn et al., 2008).

1.3. Stages of Immigration and Stressors that They Entail

Perierra and India (2011) modified Sluzki's (1979) framework using data from recent research from Princeton University and the Brookings Institution, and identified three stages of immigration: *pre-migration*, *migration*, and *post-migration*. Each stage exposes children and their families to various demands and stressors. During the *pre-migration* stage, children may experience poverty, social unrest, political violence, and family separation. Depending on the actual circumstances of immigration, the *migration* stage may last anywhere from a few hours on an airplane, which likely causes little trauma, to possibly months of serious physical and emotional hardship, which can cause severe emotional distress. Suarez-Orozco, Todorova and Louie (2002) found that children who underwent separation from their parents during migration were more likely to report depressive symptoms. Moreover, taking into consideration the fact that many immigrants come from collectivistic countries, in which interdependence in interpersonal relationships is emphasized, separation from extended family members in their home country can be very significant for immigrant children, and may produce feelings of loss and sadness (Gainor, 2005; Suarez-Orozco et al., 2002).

Gudino, Nadeem, Kataoka and Lau (2011) documented that about 50 percent of immigrant Latino children in a Californian urban area experienced separation of 3 to 4 years from primary caregivers. In addition to separation, immigrant youth faced such difficulties as low levels of English language proficiency, acculturation stress, worries about family members' adjustment problems, and exposure to violence. It was found that immigrant Latino children's

exposure to violence was higher when compared to native-born peers and to the level of violence experienced by Latino children in their countries of origin (Gudino et al., 2011).

The *post-migration* stage may involve a considerable number of adjustment stressors for immigrant parents and their children, such as learning a new language and culture, changes in family roles, and/or dealing with feelings of home-sickness and loneliness (Perierra & India, 2011). Studies have shown that ethnic discrimination is linked to various health problems, and it has a strong negative effect on immigrant children's emotional well-being (Berry et al., 2006; Peguero, 2009; Perierra & India, 2011). Immigrant youth who experienced discrimination against them reported more psychological and behaviour problems such as anxiety, depression, lower self-esteem (Potochnick & Perreira, 2010), and they had lower academic motivations (Perierra & India, 2011).

Ethnic discrimination and peer problems experienced by immigrant children were also reported by Peguero (2009) in his longitudinal study which included 1,129 Asian, 1,628 Latino American and 5,626 White American public school students. Compared with White American students, Asian and Latino immigrant students were significantly more likely to be victimized at school and they were more likely to experience fear towards school during their assimilation process. Asian immigrants tend to be stereotyped in North America as industrious and therefore thriving academically and financially in their new country. However, Peguero (2009) found that despite being stereotyped as successful immigrants, Asian students often experienced harassment and discrimination. Findings from a study by Ky, Calzada, Cheng and Brotman (2012), which included 7,726 Asian and US-born white children, supported the idea that Asian-American immigrants' well-being may be exaggerated. In comparison to US-born children, Asian immigrant children were at greater risk of various physical and mental health problems as well as experiencing inadequate interpersonal relationships (Ku et al., 2012).

Exposure to various stressors during the post-migration period when immigrants come into contact with the new culture may result in culture shock, a concept that originated with the Canadian anthropologist Oberg (1960). Culture shock may manifest in anxiety, feeling of loss, confusion and impotence. Culture shock typically has four stages: the honeymoon stage, the crisis or cultural shock, the adjustment, and the adaptation or acculturation phase. The honeymoon stage is characterized by excitement and euphoria regarding the new culture. The

crisis phase may start upon arrival without any experience of the honeymoon stage, and during this phase cultural differences become irritating, and immigrants may experience helplessness, confusion and lack of control, which in turn can cause depression, isolation, anger, frustrations, impatience, and tension. The adjustment phase involves learning to adapt to the new culture, and during this phase a positive attitude towards the new culture develops. This phase is slow and involves recurring crises and readjustments. Finally, the adaptation phase involves effective adjustment to the new culture, which requires considerable personal change for immigrants.

Research has shown that children adjust to their new culture better and more quickly than their parents (Beiser, Hamilton, Rummens, Martinez, Ogilvie, Humphrey & Armstrong, 2010; Cheung, Chudek, & Heine, 2011; Leavey et al., 2004; Sluzki, 1979). According to the findings of Cheung et al. (2011) who studied 232 Hong Kong immigrants to Vancouver (Canada), immigrants were better adjusted to Canadian culture the longer their exposure had been to it, but only if they had immigrated at a young age. These findings provide evidence for a sensitive period to acculturation, which lasts from infancy up to approximately 15 years of age. However, more research is needed to determine whether a sensitive period of acculturation merely reflects the participants' peak learning period of English language skills, and whether or not a sensitive period of acculturation exists in other cultural groups.

1.4. The Immigrant Paradox

Much research in the field of immigrant children's adjustment and emotional well-being provides sufficient evidence that immigrant children and youth are at risk of social-emotional maladjustment due to the experience of immigration. In this research, the process of immigration is considered a traumatic experience, which negatively affects immigrant children's social-emotional well-being (Atzaba-Poria et al., 2004; Derluyn et al., 2008; Kolaitis et al., 2003; Leavey et al., 2004; Perriera and India, 2011). However, a growing body of research has documented that immigrant children are more adjusted, and that they fare better in their well-being than their native-born peers (Berry et al., 2006; Dimotrova, 2011; Harker, 2001). This phenomenon is called "the immigrant paradox," which refers to findings that in spite of poorer socioeconomic status (SES), immigrants show better adaptation outcomes (physical and mental

health, psychological adjustment, and academic performance) than their native-born peers (Sam et al., 2008).

Using data from the National Longitudinal Study of Adolescent Health in the United States, Harker (2001) studied 13,350 students and found that compared to native-born youth, immigrant youth fared worse in terms of their socio-emotional well-being. However, when SES of immigrant youth was controlled, immigrant adolescents showed better well-being and less depression compared to their native-born peers. Indeed, it was important to control parents' socio-economic status, because there is substantial evidence linking low SES to less optimal socio-emotional adjustment (Bradley & Corwyn, 2002).

In a more recent study, Dimitrova (2011) compared the psychological well-being of 130 Albanian and Serbian immigrant children and 162 native Italian children. The Childhood Social Adjustment Capacity Indicators Questionnaire was used to assess the children's psychological well-being and social behaviour. The study documented even stronger evidence for the immigrant paradox: the immigrant children showed better social-emotional adaptation than the native-born Italian children despite the immigrant children's socio-economic disadvantages. Moreover, the immigrant paradox in this case cannot be explained by the ability of a particular ethnic group to better adjust because both Serbian and Albanian children showed successful adaptation and did not differ in social-emotional adjustment (Dimitrova, 2011).

Berry et al. (2006) conducted a large international study of the adaptation of immigrant youth who lived in 13 countries. This study consisted of two groups of youth: 5,366 immigrant and 2,631 native-born adolescents. Using questions that were either developed for the study or taken from others scales, the researchers measured the psychological well-being (life satisfaction, self-esteem, mental health) and social adaptation (school adjustment and school behaviour) of immigrant youth and their native-born peers. They reported that the immigrant youth were equal to or better than their native-born peers in both psychological well-being and social adaptation, thereby providing support for the immigrant paradox.

And finally, in Canada, two studies that used data from the National Longitudinal Survey of Children and Youth demonstrated good mental health of immigrant children and youth despite the various stresses of resettlement (Beiser et al., 2010; Ma, 2002). Moreover, Canadian children with immigrant backgrounds demonstrated better emotional well-being and

fares better than non-immigrant children in emotional and conduct disorders as well as hyperactive behaviour (Ma, 2002).

In contrast, Sam et al. (2008) did not find consistent evidence for the immigrant paradox in their large-scale study conducted in Finland, The Netherlands, Norway, Portugal, and Sweden. In this study, the psychological and socio-cultural adaptation of 2,700 immigrant adolescents and 1,400 of their native-born peers were compared. The researchers developed a questionnaire in which psychological adaptation involved such variables as satisfaction with life, self-esteem, anxiety, depression, and psychosomatic complaints, while socio-cultural adaptation was represented with school adjustment and behaviour problems. The paradox was found for the socio-cultural adaptation of the immigrant children, but not for psychological adaptation. Immigrant adolescents were found to be less psychologically adapted than native-born youth (Sam et al., 2008).

In summary, studies on immigrant children's adjustment provide contradictory results in relation to the immigrant paradox. Some studies show that due to various adjustment stressors immigrant children are at a greater risk of physical, mental and social-emotional problems (Berry et al., 2006; Gainor, 2005; Leavey et al., 2004; Peguero, 2009; Perieria & India, 2011; Suarez-Orozco et al., 2002), whereas other research has found evidence or at least partial support for the immigrant paradox (Beiser et al., 2010; Berry et al., 2006; Dimotrova, 2011; Harker, 2001; Ma, 2002; Sam et al., 2008).

These contradictory results in relation to the immigrant children's adjustment may exist due to considerable variation across receiving countries and immigrant groups. Berry (1997) proposed that the general orientation of a country's policies and population towards immigration influenced successful integration of immigrants to the host society. Countries that promote cultural pluralism and provide social support to immigrants make it easier for immigrants to adjust to their new lives there.

European countries seem to present more challenges for immigrant adaptation, while countries such as the USA, Canada and Australia are likely easier to adjust to as they have long traditions as immigrant-receiving nations with well-developed immigration policies (Berry et al., 2006). For example, Canada has policies and programs in place to foster the social integration, whereas in some European countries children from immigrant families tend to experience social

exclusion (Picot & Hou, 2013). In a comparative study of university participation by immigrant students in Switzerland and Canada, Picot and Hou (2013) identified differences in meritocratic practices between the two countries, which contributed to differences in the immigrant-native university participation gap in Switzerland. Specifically, immigrant students were less likely to be recommended for upper level school streams than were Swiss-born students regardless of their school achievement. In Canada, the opposite occurred; low-achieving secondary school students with Chinese backgrounds are seven times more likely to attend university than their Canadian-born poor performing peers (Picot & Hou, 2013). In addition to multicultural policies and programs, in Canada economic immigration also exists, whereby the applicants are given permanent resident status based on their qualifications (Statistics Canada, 2008). Higher qualifications increase the chances of successful adaptation in a new society.

Beiser et al. (2010) argued that conditions for settlement and integration differ not only between countries, but also between regions of resettlement within a country, which in turn tends to affect immigrants' emotional and mental health. Beiser et al. (2010) found that Canadian provinces vary in their acceptance of immigrants. For instance, due to funding reduction, Ontario became less immigrant-friendly despite being the most multicultural Canadian province, whereas Alberta, British Columbia and Manitoba may present more welcoming environments for immigration due to considerable current social support and funding for settlement and integration. Beiser et al. (2010) argued that as a result of unfavourable policies and practices for immigration, in Toronto immigrant children and youth had the highest risk of developing a mental health problem in comparison to immigrant children in other provinces.

1.5. Protective Factors for Well-being

By analyzing patterns of successful adjustment of immigrants, protective factors for psychological and socio-cultural well-being can be inferred. Berry et al. (2006) found that ethnic involvement, which is involvement in the culture of origin, supports psychological well-being. The researchers created four profiles of acculturation: *integration* (involvement in both ethnic and host cultures), *ethnic* (orientation primarily to the culture of origin), *national* (orientation primarily to the host culture), and *defused* (confusion and lack of definite orientation). Surprisingly, youth who matched the *national* profile did not show the best adjustment and

emotional well-being. Out of these four profiles of assimilation, youth who matched the *integration* profile followed by the *ethnic* profile scored the highest in psychological well-being. Proficiency in the ethnic language significantly contributed to the development and maintenance of ethnic identity, which in turn played an important role in both psychological well-being (Berry et al., 2006; Phinney, Romero, Nava, & Huang, 2001) and socio-cultural adjustment (Atzaba-Poria, 2004).

Harker's (2001) study was designed to explain sources of the immigrant paradox. She argued that closeness with parents, church, and social support are protective factors from depression in immigrant adolescents. In her analysis of data from the National Longitudinal Study of Adolescent Health in the United States, she presented evidence that "parental supervision, low parent-child conflict, church attendance, prayer, and social support, which are all more prevalent among first generation immigrant youth than native youth, explain the protective nature of first-generation status for depression outcomes" (Harker, 2001, p. 991).

Harker's (2001) findings are consistent with other research in the field of not only immigrant youth, but also psychological well-being and behavioural adjustment of adolescents in general. Youth who perceived more parental monitoring were less likely to have behaviour problems, such as history of drugs and alcohol use, history of arrest or being involved in fights (DiClemente, Wingood, Crosby, Cobb, Harrington, Davies, Hook & Oh, 2001). In Canada, immigrant children living in cities with high unemployment rates had significantly lower rates of conduct disorder than children who lived in cities with a low unemployment rate (Ma, 2010). These numbers suggest that unemployed parents may have more opportunities to supervise their children than working parents, which in turn protects against the development of behavioural problems. Bradford and Vaughn (2008) found positive linkages between child-parent conflicts and youth depression as well as antisocial behaviour, while adolescents' religiosity was negatively associated with problem behaviour. Children with strong religious affiliations who attended church frequently (once a week or more) and who considered religion to be very important had better psychological health, better educational outcomes, and were significantly less involved in problematic behaviour, such as unsafe sexual practices, smoking, alcohol and drug use, and crime (Chiswick & Mirtcheva, 2013).

Finally, Chu, Saucier, and Hafner's (2010) findings from a meta-analysis of the relationships between social support and child and youth well-being are consistent with Harker's (2001) claim that social support is an important protective factor for the well-being of immigrant children and adolescents. However, while Harker's (2001) research was quite broad, measuring the overall perceived emotional support, Chu et al.'s (2010) study focused specifically on support available for children. These researchers measured both actual and perceived support as well as four different sources of support (family, friends, school, and other support) separately. According to Chu et al.'s (2010) findings, perceived support was more beneficial for children's well-being than actual support, and out of the four sources of support, teacher and school support had the most protective effect for children's well-being followed by family, friends and other sources of support.

1.6. Family as a Stressor and a Protective Factor

Family plays an important role in children's well-being and adjustment, and immigrant children and youth are no exception. However, in comparison to non-immigrant families, immigrant families tend to face additional challenges, such as their adaptation to the new culture, financial difficulties, and negative changes in social status (Beiser et al., 2010; Kolaitis et al., 2003; Leavey et al., 2004; Ma, 2010; Sluzki, 1979). For example, according to Statistics Canada (2006), approximately 22 percent of immigrants were in the low-income category compared to only 14 percent among the Canadian-born. In Greece, in comparison to non-immigrants, immigrant families lived in more crowded housing, and many were obliged to take jobs below their skill levels (Kolaitis et al., 2003).

Depending on how effectively parents overcome these challenges, family can either be an additional stressor for immigrant children or a protective factor. For example, there is a significant correlation between poor adaptation of immigrant children and their parents' depression (Beiser et al., 2010), whereas family support and maintenance of cultural values by immigrant families promotes resilience of immigrant youth and contributes to their social-emotional well-being (Potochnick & Perreira, 2010).

Several studies have found that immigrant families tend to experience various conflicts during the period of adjustment to their new culture (Beiser et al., 2010; Leavey et al., 2004;

Sluzki, 1979; Szapocznik and Kurtines, 1993). Family conflicts have a negative effect on children's well-being, being linked to depression, anxiety, problem behaviour, and low self-esteem (Shek, 1997).

According to Sluzki's (1979) model, during the post-migration period, which involves the process of acculturation, immigrant families experience different conflicts. During the time immediately following migration when immigrants' major concern is basic survival, any conflicts in immigrant families typically remain dormant, and distinct features of relationships within the families are exaggerated. For instance, close relationships tend to become closer, while distant relationships tend to increase in their distance, which places more stress on children. However, in approximately six months, a stormy period often full of difficulties and conflicts tends to begin. Children are often at the center of these conflicts as they usually acquire the new language and culture faster and more easily than their parents. As a consequence, the children's new patterns of behaviour may contradict their parents' values and norms. Thus, besides the challenges of adjustment to a new culture, children must also deal with family matters. When parents have a considerable delay in their adaptation to the new culture while their children become completely integrated, *transgenerational phenomena* tend to occur. Sluzki (1979) argued that such conflicts arise in almost every immigrant family, and they should be considered as more intercultural than intergenerational.

Szapocznik and Kurtines (1993) also emphasized conflicts in immigrant families and the negative impact on family relationships. In these conflicts, youth tended to struggle for autonomy, while older members of the family tried to protect family connectedness. "As a result of this struggle, children lost emotional and social support from their families, and parents lost their positions of leadership" (Szapocznik & Kurtines, 1993, p. 403).

Several studies indicate that differences between children's and parents' rates of adjustment to a new society and children's easier host-country language acquisition may cause conflicts between immigrant children and their parents due to a role-reversal (Beiser et al., 2010; Leavey et al., 2004). Indeed, due to a lack of proficiency in the dominant language of the new country, parents tend to ask their children for assistance with various government and other official organizations as interpreters. It seems plausible that such assistance, as well as

parents' difficulties in helping their children with schoolwork, may undermine parents' authority, creating conflicts in immigrant families.

In contrast to the aforementioned studies that emphasize various problems in immigrant families, a substantial body of research provides evidence for strong parent-child bonds in immigrant families and only a small amount of family conflict (Harker, 2001; Lee, Su & Yoshida, 2005; Weisskirch, 2005). For instance, according to Weisskirch's (2005) findings based on data from interviews with Latino adolescents, translating for parents and relatives has a positive effect on child-parent relationships and is associated with stronger ethnic identity. Harker (2001) provided evidence that immigrant families have fewer conflicts and more close relationships than non-immigrant families.

According to the findings of Tasopoulos-Chan and Smetana (2009) based on comparison of adolescents' strategies in managing information with their parents, first generation immigrant adolescents from Chinese, Mexican and European backgrounds were more likely to share information about their life with their parents compared to non-immigrant children of the same background. Second generation adolescents avoided discussing their issues with their parents because they felt that they might be not understood. Keeping secrets from parents has been associated with poor adjustment and family relationships, therefore the differences between non-immigrant and immigrant youth strategies in communication with their parents can be attributed to differences in closeness to parents (Tasopoulos-Chan & Smetana, 2009).

These findings supporting close relationships in first generation families suggest that in comparison to non-immigrant families, immigrant families have certain cultural traditions that may function as a resource for children's adaptations and emotional well-being, which explains immigrant children's better adjustment found in a few studies. Kwak (2003) proposed that harmonious intergenerational relations within immigrant families from collectivistic societies are supported by their culture and social networks, and immigrant youth pursue autonomy later than their non-immigrant peers. In contrast to non-immigrant families, immigrant families inhibit disagreements in order to facilitate adjustment, and they acknowledge both the sacrifices made by the older generation and the contribution of children (Kwak, 2003). Tseng (2004) examined family interdependence and academic adjustment in immigrant and US-born college students,

and she argued that immigrant children and youth express an awareness of their parents' sacrifices in order to create more opportunities for their children; therefore, in comparison with non-immigrant peers they place higher emphasis on family obligations. Immigrant children are motivated to "pay their parents back" by supporting their families in the future. Moreover, immigrant students tend to live with their parents, which gives them more opportunities to help and support their families.

Besides contradictory findings in regards to level of conflict in immigrant families, there is disagreement among scholars regarding the importance of protective factors such as parents' socio-economic status on immigrant children's well-being. Harker (2004) suggested that a disadvantageous demographic and family background, such as poverty and poor education of parents, are the risk factors for immigrant adolescents' psychological and socio-cultural maladjustment. Indeed, immigrant youth fared worse in their socio-emotional well-being when socio-economic status was not controlled (Harker, 2004). Yet, contradictory findings were documented by Beiser et al. (2010) who found that income had no significant association with psychological problems of immigrant children. The contradiction may be due to methodological limitations of Beiser et al.'s study (2010). The research was based on Hong Kong Chinese, Mainland Chinese, and Filipino immigrants to Canada, who are the largest source of immigration to Canada. Therefore, cultural differences, such as a different perception of economic hardship might explain the contradictions between the two studies. Further research is needed in the investigation of influence of parents' socio-economic status on their children's adjustment.

1.7. Research on Students' Adjustment to University

One of the important indicators of an individual's well-being is education. A large body of research has been conducted on students' adjustment to post-secondary educational settings including numerous social, emotional, psychological, socio-economical, and cultural factors which facilitate or hinder students' adjustment (Eccles, 2005; Kaczmarek, Matlock & Franco, 1990; Melendez & Melendez, 2010; Pascarella & Terenzini, 2005; Timo, 2007; Walton, 2012).

According to Statistics Canada (2008), in 2005 thirty-one percent of Canadian students who attempted university failed to complete their degrees. This high dropout rate indicates that

a significant number of Canadian students encounter difficulties during their university years. Although being accepted to University is a positive experience, studies have shown that the transition to university is particularly difficult for students (Fisher & Hood, 1987; Wintre & Yaffee, 2009). Bland, Melton, Welle, and Bigham (2012) found that 80 percent of university students reported experiencing daily stressors such as assignments, tests and lack of sleep, as well as ongoing stressors such as pressure to do well in college and choosing a career or major. Three coping mechanisms were identified in this study: listening to music, sleep, and social interaction, whereas the only protective factor identified in this study was support from family and friends.

New residential and academic challenges of university life are associated with students' symptoms of anxiety, depression, homesickness, absent-mindedness and other adverse psychological symptoms (Fisher & Hood, 1987). By comparing the psychological well-being of 66 individuals at two months prior to their first year at university and then at six weeks after starting their school year, Fisher and Hood (1987) found a rise in psychological problems such as anxiety, depression, obsessive behaviour, absent mindedness and, in those who had to move away from their families, homesickness. These researchers suggested that increased psychological problems were caused by students' lower sense of personal control and a feeling of helplessness, which in turn were caused by raised demands made on them and ineffectiveness or inappropriateness of old procedures in the new environment.

Various scales and questionnaires have been used to assess students' adjustment to university, and the Student Adjustment to College Questionnaire (SACQ) developed by Baker and Siryk in 1984, and revised in 1986 and 1999, is one of the most widely used (Baker & Siryk, 1986; Beyers & Goossens, 2002). This questionnaire contains four subscales: academic, social, personal-emotional, and attachment. Scores derived from the subscales create an overall score as an index of adjustment to university. These subscales demonstrate high reliability, and validity has also been demonstrated through statistically significant relations between the subscales and various criterion variables, such as depression, attrition, and appeal to counselling (Beyers & Goossens, 2002).

Wintre and Yaffee (2009) pointed out that a growing body of research has attempted to identify protective factors that may facilitate adaptation to university, such as students' sense of

identity, socio-economic status, students' relationships with their parents, and many other background characteristics that may influence students' adjustment to university. Wintre and Yaffee examined the association between perceived relationships with parents and psychological well-being and university adjustment in 408 Canadian students from a large university. The findings indicated that relationships with parents and students' perception of parenting style in their families predicted students' social-emotional adjustment, and both emotional and intellectual closeness with parents were important. There was no association between relationships with parents and GPA in males, whereas maternal authoritarian parenting style was negatively linked to academic achievement in females. The sample was described as "...composed of a diverse range of cultures and ethnic backgrounds, reflecting the multicultural policy of Canada," therefore possible ethnic differences and generational status of ethnic minorities (e.g. first-generation immigrant) were not analyzed (Wintre & Yaffee, 2009).

Substantial research is devoted to particular groups of students who tend to experience difficulties in adjustment to higher educational institutions, such as first generation college students (the first of the family to go to college), international and African-American students, and student-athletes (Andrade, 2006; Melendez, 2008; Pascarella, Pierson, Wolniak & Terenzini, 2004). Yet, very few studies have addressed the adjustment of immigrant students to higher educational settings.

Dennis et al. (2005) conducted a longitudinal study which investigated the role of motivation and parental and peer support in the academic performance of ethnic minority students. The participants were 100 Mexican, Central American, Chinese and Vietnamese students from an American community college, and most of these were second-generation Latino students. The researchers targeted an ethnic minority group because of poorer academic performance and higher dropout rate found in this particular group of students. Dennis et al. found that personal motivation was a positive predictor and lack of peer support was a negative predictor of students' academic performance. No comparisons with a non-ethnic minority or between various generations of immigrants were made. It is likely that motivation and peer support are predictors for university students in general, and not specific to any ethnic minority group.

In addition to the abovementioned study, Sue and Zane (1985) conducted a study at the University of California, examining the difference in socio-emotional adjustment between foreign-born and American-born Chinese students. Although Chinese students in the study had higher GPA's than the university average, recent Chinese immigrants were less socio-emotionally adjusted. They studied for more hours, took fewer courses, and limited their majors in order to compensate for their limited English language proficiency and in order to receive higher grades. Thus, Sue and Zane (1985) reported partial support for the immigrant paradox.

A more recent study by Tseng (2004) was also conducted in the USA. In contrast to Sue and Zane (1985), Tseng (2004) included immigrant college students of various backgrounds, namely, Asian-Pacific, Latino, African, Afro-Caribbean, and European. The focus of the study was family interdependence and its influence on academic adjustment among immigrant college students and their peers with US-born parents. The results indicated that immigrant students had more interdependent attitudes towards their families. Immigrant students' family obligation attitudes were also associated with higher academic motivation among immigrant students in comparison to non-immigrant students. Comparison of social-emotional adjustment and overall students' adjustment to college were beyond the scope of the study. However, Tseng (2004) compared academic achievement between immigrant and non-immigrant students, and no difference between the two groups was found despite immigrant students' higher academic motivation. In addition, immigrant students had higher family demands, which had a negative association with immigrant students' achievements.

Research on immigrant students' adjustment to university mostly originates in the United States (Abada, Feng, Bali, 2008). However, American-based studies may not be applicable to Canada because of differences between the two countries in population composition and educational systems (Abada et al., 2008). In the United States, the largest immigrant group is comprised of Mexican-born individuals (Batalova & Terraza, 2010), whereas in Canada the main sources of immigration are Asia and the Middle East (Statistics Canada, 2013). In contrast to the United States, where only 15 percent of students in the bottom income quartile and 32 percent of students in the second income quartile attend university, access to university in Canada seems more equitable as students in the both the bottom and second quartiles are enrolled equally in university (Abada et al, 2008).

Very few Canadian studies address issues related to immigrant students despite the high rates of immigrant enrolment in education (Childs et al., 2010; Sweet et al., 2010). The findings from one of the most comprehensive large-scale studies conducted by Abada et al. (2008) based on the Ethnic Diversity Survey, which included responses from over 42,000 youth, revealed very large differences between generational groups of immigrant children in university completion. Children of Chinese immigrant parents, had the highest university completion (58 percent), followed by Indian (46 percent) and European immigrant students (47 percent), whereas Caribbean, Latin American and Filipino youth accounted for the lowest percentages of university completion (22, 23 and less than 19 percent respectively). Abada et al. (2008) proposed that some groups had educational advantage due to social capital in immigrant families and communities, such as intergenerational closeness, social support and supplementary schools.

Another large scale study based on several censuses of population, conducted by Bonikowska and Hou (2011), studied the outcome of immigrant children who arrived in Canada in 1980 and compared them to their Canadian-born peers. The findings of this study revealed that childhood immigrants who arrived in 1980 were more likely to obtain a university education, and the female childhood immigrants were more likely to have higher adult earnings than their Canadian-born peers.

Truly, despite such challenges as requirements of learning English, adjustment to a new culture, and being found twice as likely to be economically poor when compared with their Canadian-born peers, immigrant children's success at university can be considered evidence for the immigrant paradox in Canada. One of the possible explanations for this paradox may be higher education levels in immigrant parents in Canada (Abada et al., 2008). Indeed, it is well-documented that parents tend to transmit their educational accomplishments to their children (Eccles, 2005). However, in Boyd's (2002) study, the effect of parents' education was taken into account, and children of immigrants still remained ahead of Canadian-born children in university completion rates. Bonikowska and Hou (2011) also found that immigrant children of parents with low levels of education were shown to become more educated than children of Canadian-born parents with similar low levels of education.

Yet, adjustment of immigrant youth to university is a more complex, multidimensional behavioural process than simply as a measure of academic success. Immigrant students may have high academic achievement due to various factors, such as pressure from family, and they still may experience social and emotional difficulties. For example, Asian students (who tend to be stereotyped as very successful immigrants) demonstrated high academic performance, but they showed lower social-emotional adjustment scores (Sue & Zane, 1985). No statistically significant relationship has been found between undergraduate students' level of happiness and their GPA scores (Langevin, 2013). Also, according to Tenkorang's (2009) findings, feelings of exclusion and experience of racial discrimination positively associated with university completion for women. The author suggests that immigrant women's persistence in attaining their university degree is a form of resistance to society's expectations. Thus, when evaluating adjustment to college or university, numerous constructs, including social and personal-emotional parameters, must also be measured (Feldt, Graham, & Dew, 2011). Unfortunately parameters such as social-emotional adjustment of immigrant university students are often overlooked because of an emphasis on academic success and completion rates.

1.8. Research Questions

In summary, analysis of the literature indicates that current research provides contradictory results in relation to immigrant youth adjustment, and that studies on adjustment to university are scarce. Since a significant proportion of youth in Canadian universities are immigrants, adjustment and well-being of immigrant youth is a very important issue for Canadian educators and school administrators to consider. The proposed study addresses existing gaps by examining Canadian immigrant students' adjustment to university, comparing adjustment of immigrant students with Canadian-born students at Simon Fraser University (SFU) and the University of British Columbia (UBC), with the following research questions to be posed:

Are there differences in adjustment between immigrant and Canadian-born university students?

Is there evidence that parents' education and income, as well as students' relationship with parents are contributors to immigrant students' successful adjustment to university?

Taking into consideration this body of research and the fact that recent immigrants are more likely to have come from Asia or the Middle East (58.3 percent of all immigrants) (Statistics Canada, 2013), it is expected that immigrant students will score higher on academic adjustment scores and lower on their social and personal-emotional scores than their Canadian-born peers. Previous American-based research demonstrated that parents' education, income and parental attachment significantly predicted college adjustment, and that family relationship can be a protective factor for immigrant students' adjustment (Harker, 2001; Melendez & Melendez, 2010). Therefore, family income, parents' education and students' relationships with their parents are expected to predict immigrant students' adjustment to university in Canada.

Chapter 2.

Method

2.1. Participants

Participants were 95 students from two universities in Western Canada, Simon Fraser University (SFU) and the University of British Columbia (UBC). Participants were a convenience sample for the investigator who is both an SFU student and a UBC faculty member. Participants were recruited in two ways. Eighty-nine percent of participants ($n=85$) completed the study questionnaires in the beginning or at the end of classes in which their instructors agreed to allocate a portion of class time for this purpose. The response rate of these candidates was 91%. In two classes the questionnaires were distributed to students before lectures with a request to complete the questionnaire when they had time and return them to the researcher the following week. This method was less effective with only 9 of 55 students returning completed questionnaires as requested to their next class, representing a response rate of 16.6 %.

Two participants who did not indicate their place of birth and 18 international students were excluded from further analyses; therefore, the final sample was 75 participants, including 33 (44.0%) SFU and 42 (56.0%) UBC students. Sample size was sufficient for statistical procedures such as comparing two independent groups' means and correlations, for which approximately 30 participants in each group were needed (Creswell, 2012).

Participants were undergraduate students enrolled in a 300-level ($n = 22$) and two 400-level Education courses ($n=7$) at SFU, and two 100-level and one 200-level German language courses at UBC ($n=28$) and ($n=18$) respectively. Twenty-one participants were male (28.0%), and 53 were female (70.7%). One participant failed to indicate gender (1.3%). Participants

ranged in age from 18 to 48 years ($M=23.16$, $SD = 5.57$); however, only 5 students were older than 29 years.

Four participants (5.3%) were enrolled in their first year of study, 16 (21.3%) in their second, 19 (25.3%) in their third, 32 (42.7%) in their fourth or higher year of study, and 4 (4.53%) failed to indicate their class standing. Thirty-eight participants (50.7%) were born in Canada and 37 (49.3 %) were foreign-born immigrant students. The majority of immigrant students ($n=31$; 41.3%) had arrived from Asia. The mean age of immigrant students at arrival was 13.59 years ($SD = 5.47$) and they had lived in Canada on average for 8.21 years ($SD = 5.35$). Demographic information of participants is presented for purposes of reference in Table 2.1.

Table 2.1. Demographic Information of Participants

Characteristic	<i>n</i>	percentage
Sex		
Male	21	28.0
Female	53	70.7
Age (years)		
18-29 yeas old	69	92.0
Mature (older than 29)	5	7.0
Class Standing		
First year	4	5.3
Second year	16	21.3
Third year	19	25.3
Forth year or higher	32	42.7
Status		
Canadian born	38	50.7
Foreign-born	37	49.3

Note. Some variables do not add up to 100 % due to missing data.

2.2. Measures and Procedure

A cross-sectional survey design was chosen to gather data for the study. Data collection involved the completion of two questionnaires. The first questionnaire contained the consent form (See Appendix A), 15 demographic questions including students' age, gender, place of birth, *primary language spoken at home*, parents' education and socio-economic status, students' household organization (living conditions), student's GPA and class rank (See

Appendix B). Foreign-born students were asked two additional questions: age of arrival to Canada and total number of years lived in Canada. In addition, the questionnaire contained 20 items from the Inventory of Parent and Peer Attachment (IPPA; Armsden & Greenberg, 1987) (see AppendixC). The IPPA was chosen for its previously reported high internal consistency ($\alpha = .91$) and excellent concurrent validity (scores correlate with several measures of family functioning) (Guarnieri, Ponti, & Tani, 2011). The IPPA items were included in order to investigate family relationships as a possible protective factor for university adjustment, and whether or not this differed between immigrant and Canadian-born university students. The 20 items selected from IPPA comprise two scales, Attachment to Mother (e.g. "My mother respects my feelings") and Attachment to Father (e.g. "I tell my father about my problems and troubles"). Items are responded to on a Likert-type scale response with options ranging from 1 ("*Almost never*" or "*Never true*") to 5 ("*Almost always*" or "*Always true*").

The second questionnaire -- the Student Adaptation to College Questionnaire (SACQ; Baker & Siryk, 1999) -- measured social-emotional adjustment and overall university adjustment of students. This 67-item inventory consists of Likert-type scale response options ranging from 1 ("*Applies very closely to me*") to 9 ("*Does not apply to me at all*") and includes the overall adjustment scale and four subscales; Social, Personal-Emotional, Academic, and Attachment to University. The Social Adjustment Subscale consists of 20 items relevant to the interpersonal-societal demands of university (e.g. "I am meeting as many people and making as many friends as I would like to at UBC"). The Personal-Emotional Adjustment subscale contains 15 items that examine students' psychological and physical well-being (e.g. "I have been feeling tense and nervous lately"). The Academic Adjustment Subscale contains 24 items, and it measures students' success at coping with various educational demands (e.g. "Recently I have had trouble concentrating when I try to study"). The Attachment subscale consists of 15 items, and it measures students' satisfaction with the university experience (e.g. "*I am pleased now about my decision to go to university*"). Nine items appear in more than one subscale, and two items contribute to the Full Scale score only and do not appear in any of the subscales. The SACQ was chosen for its previously reported high internal consistency (α range from .92 to .94) and excellent concurrent validity (scores correlate with various external validity criteria, such as participation in social activities or appeals for psychological services) (Baker, Clark & Siryk, 1984).

The study was conducted in mid-May, 2014. Prior to recruiting participants, the researcher received ethics reviews and approvals from the Research Ethics Board at both SFU and UBC. Emails to several SFU and UBC instructors were sent with a request to devote a portion of class time to having students complete the survey. After gaining instructors' permission, the researcher went to the class location and, depending on the agreement with each instructor, either asked participants to complete the questionnaires during class time or requested students to return completed questionnaires to their next class. The questionnaires were distributed together with consent forms. The researcher reviewed the consent form with the students orally. She also briefly described the purpose of the study to students and emphasized the voluntary nature of their participation.

2.3. Analytic Strategy

SPSS for Windows statistical software package was used for statistical analysis of the data.

The adjustment to university variables (Social Adjustment, Academic Adjustment, Personal-Emotional Adjustment, Attachment to University, Full Score of Adjustment and GPA) were dependent variables in this study. Independent variables were Student Status (Canadian-born or Foreign-born), Household Organization that described participants' current living conditions (Parental Home, Alone, With Roommate, With Partner), and the following: (1) family demographic variables (Parents' Income, Father's Education, Mother's Education); (2) relationship variables (Relationship with Father, Relationship with Mother); and (3) immigration variables (Years Lived in Canada, Age of Arrival to Canada).

Descriptive statistics were used to examine central tendencies and variability in the scores of two groups, Canadian-born students ($n=38$) and foreign-born students ($n=37$). The groups were created based on the sample after analyzing the background data. It was determined that scores in both groups were normally distributed, and both groups had similar variability.

Independent samples *t*-tests ($\alpha = .05$ two tailed) were used to test differences in Social Adjustment, Academic Adjustment, Personal-Emotional Adjustment, Attachment to University, Full Score and GPA between the two groups.

Since Likert Scales in this study have five or more points, variables measured by Likert Scales can be considered continuous (Allen & Seaman, 2007). Therefore, Pearson correlation coefficients were used to assess the relationship between the dependent variables (students' adjustment scores and GPA) and other independent variables (students' relationships with their parents, their parents' SES and parents' education).

Chapter 3.

Results

3.1. Comparing the Groups for Statistical Differences

The primary purpose of this study was to investigate differences in adjustment between immigrant and Canadian-born university students. The means, standard deviations, and minimum and maximum values for the adjustments scores in each group are reported in Table 3.1.

Table 3.1. SACQ scores (means, standard deviations, and range) as a function of Student Groups

		N	M	SD	Min	Max
Academic Adjustment	Canadian-born	35	153.00	26.15	83	195
	Foreign-born	37	142.95	25.51	93	202
	Total	72	147.83	27.14	83	202
Social Adjustment	Canadian-born	35	126.23	22.19	67	174
	Foreign-born	37	118.08	25.31	57	174
	Total	72	122.04	24.03	57	174
Personal-Emotional Adjustment	Canadian-born	35	91.63	16.46	51	123
	Foreign-born	37	89.86	17.52	58	127
	Total	72	90.72	16.92	51	127
Attachment to University	Canadian-born	35	108.60	17.47	64	163
	Foreign-born	37	99.38	17.24	56	128
	Total	72	103.86	17.84	56	163
Full Scale	Canadian-born	35	434.11	53.77	316	539
	Foreign-born	37	408.38	63.96	274	538
	Total	72	420.89	60.22	274	539
GPA	Canadian-born	36	3.25	.52	2.40	4.30
	Foreign-born	28	3.24	.56	2.00	5.10
	Total	64	3.24	.53	2.00	4.30

Gender differences on all adjustment variables were examined within Canadian-born and foreign-born students. Results of independent samples *t*-tests indicated no significant gender differences on any variables. Consequently, male and female participants were combined in all further analysis.

The results of the independent samples *t*-test indicated that there was a significant difference in Attachment to University between Canadian-born and foreign-born students, $t(70)=2.25$, $p= .03$ (See Table 3.2). These results suggest that Canadian-born students had higher Attachment to University scores ($M=108.60$, $SD=17.47$) than foreign-born students ($M=99.38$, $SD=17.24$). Cohen's *d* was 0.53 indicating a medium effect size. However, the independent samples *t* tests revealed that the Canadian-born group did not differ significantly

from the foreign-born group on GPA, Full Scale, Academic, Social or Personal-Emotional Adjustment (See Table 3.2).

Table 3.2. Independent Sample t-Test

<i>Variable</i>	<i>t</i>	<i>df</i>	<i>MD</i>	<i>SED</i>	95% <i>CI</i> of the Differences	
					Lower	Upper
Academic	1.59	70	10.05	6.33	-2.57	22.68
Social	1.50	70	8.15	5.62	-3.07	19.36
Personal-Emotional	.45	70	1.77	4.01	-6.24	9.77
Attachment	2.25*	70	9.22	4.09	1.06	17.38
Full Scale	1.84	70	25.74	13.97	-2.12	53.59
GPA	0.4	62	.00	.14	-.26	.28

$p^* < .05$, *MD* – difference in means, *SED* =Standard Error of the Difference.

3.2. Demographic and Relational Factors

A second purpose of the study was to investigate a variety of demographic and relational factors that may contribute to students' adjustment to university. Within both student groups, correlations were computed between the adjustment variables and (1) family demographic variables, (2) relationship variables and (3) immigration variables (see Tables 3.3, 3.4 and 3.5).

As can be seen in Table 3.3, within the Canadian-born group the demographic variables were related to subset of student adjustment variables. Father's education was positively correlated with Social Adjustment ($p = .013$) and Attachment to University ($p = .023$), and Mother's Education was positively correlated to Social Adjustment ($p = .019$) in this group. Parents' Income was marginally correlated with Attachment to University ($r = .36$; $p = .053$).

In the foreign-born group, Parents' Income was positively correlated with Personal-Emotional Adjustment ($p = .021$) and GPA ($p = .042$). No other correlations were significant.

Table 3.3. Pearson's *r* Intercorrelations among Adjustment to University and Demographic Variables

Adjustment variables	Parent Income		Education- Father		Education- Mother	
	CB	FB	CB	FB	CB	FB
Social	.21	.05	.42*	.05	.39*	.01
Personal Emotional	-.08	.41*	.16	-.11	-.01	-.13
Attachment	.36+	-.01	.39*	-.05	.33	-.11
Academic	.25	.25	.07	-.12	-.00	-.29
Full Scale	.24	.24	.27	.09	.16	-.19
GPA	-.05	.41*	.10	.22	.29	.05

* $p < 0.05$; + $p < 0.06$

CB – Canadian-born group; FB– Foreign-born group.

As can be seen in Table 3.4, the Relationship with Mother variable was significantly correlated with Personal-Emotional Adjustment in both the Canadian-born group ($p = .025$) and foreign-born groups ($p = .006$). In the foreign-born group, Relationship with Mother significantly correlated with Full Scale adjustment ($p = .026$). Also in the foreign-born group, Relationship with Mother was marginally correlated with Academic Adjustment ($r = .30$; $p = .057$). There was a positive correlation between Full Scale adjustment and Relationship with Father in the foreign-born groups ($r = 0.33$, $p = .045$), and Relationship with Father was marginally correlated with Social Adjustment ($r = .31$; $p = .059$).

Table 3.4. Pearson's r Intercorrelations among Adjustment to University and Relationship Variables

Adjustment variables	Relationship with Father		Relationship with Mother	
	CB	FB	CB	FB
Social	.19	.31+	.19	.21
Personal Emotional	.16	.29	.38*	.44**
Attachment	.08	.32	.30	.14
Academic	.19	.15	.17	.32+
Full Scale	.21	.33*	.33	.37*
GPA	-.09	.23	-.15	.02

** $p < 0.01$. * $p < 0.05$. + $p < 0.06$

Finally, the immigration variables – Years Lived in Canada and Age of Arrival to Canada – had no significant relationship with any of the adjustment scores or GPA among the foreign-born group. The correlation matrix is presented in Table 3. 5.

Table 3.5. Intercorrelations among Adjustment and the Immigration Variables

	1	2	3	4	5	6	7	8
1. Social Adjustment	1.00							
2. Personal Emotional	.44**	1.00						
3. Attachment	.72**	.43**	1.00					
4. Academic Adjustment	.52**	.64**	.54**	1.00				
5. Full Scale	.79**	.79**	.76**	.88**	1.00			
6. GPA	.30	.24	.20	.36	.39*	1.00		
7. Years lived in Canada	-.26	-.04	-.16	-.13	-.20	-.06	1.00	
8. Age of arrival	.16	.05	.16	.26	.20	-.17	-.75**	1.00

** $p < 0.01$. * $p < 0.05$.

Notably, there was no significant correlation between GPA and academic adjustment $r(62) = .19, p > 0.10$.

Chapter 4.

Discussion

4.1. The Immigrant Paradox

Previous research on immigrant university students in Canada has focused on academic success and completion rates, whereas the social-emotional adjustment of immigrant university students in Canada has been overlooked. The present study addressed existing gaps by examining Canadian immigrant students' adjustment to university.

The only significant difference found between Canadian-born and foreign-born students was in their attachment to university. Students from the Canadian-born group reported being more attached to university than students from the foreign-born group. No statistically significant difference between the groups was found for social-emotional, personal, and academic subscales or in the overall adjustment to university (Full Scale). Since the Attachment to University variable from the SACQ has been found to be strongly and negatively correlated with attrition (Baker & Siryk, 1984), this finding seems inconsistent with the previous finding that children of immigrants have higher university completion rates than Canadian-born children (Boyd, 2002). Possible explanations for the lack of differences between Canadian-born and foreign-born students' adjustment may lie in the characteristics of the present sample. First, research shows that attrition is the lowest for students in Chinese origin (Grayson & Grayson, 2003). Second, most of the students in the present study were beyond their first year of university. Since half of all university attritions occur between the first and the second years, it is likely that Canadian-born participants in the current study represent a biased group in terms of university attachment.

The lack of difference between Canadian-born and immigrant students' in social-emotional, personal, or academic adjustment was also unexpected considering the existing

literature which reports significant differences between immigrant and non-immigrant students, either supporting the immigrant paradox (Berry et al., 2006; Beiser et al., 2010; Dimotrova, 2011; Harker, 2001; Ma, 2002) or finding immigrant students to be less well adjusted (Sue & Zane, 1985; Sam et al., 2008).

There are several possible explanations for these unanticipated results. It is possible that the peculiarity of the demographic profile of Metro Vancouver, which includes a high proportion of residents of Asian heritage, influenced the results of the study. Indeed, the Canadian-born group may have also contained a considerable proportion of participants with Asian backgrounds, which in turn could impart to the Canadian-born group some similar characteristics to the immigrant group.

The difference between my findings and those from previous research showing that Asian students face more challenges to university adjustment may be explained in part by the multiculturally diverse demographic profile of both SFU and UBC campuses. Foreign-born students may experience less social-emotional problems because they could more easily find peers with a similar cultural background to their own. In addition, both campuses are located in Greater Vancouver which is considered to be an immigrant-friendly city (Beiser et al., 2010), therefore both campuses may promote immigrant-friendly, welcoming environments that facilitate better immigrant and international student adjustment.

Finally, the results indicated some numerical differences between the groups that were not significant statistically. Therefore, the present study may have not enough power to detect differences, which future studies could address with a larger sample size.

4.2. Factors Related to University Adjustment

It was found here that the Canadian-born and immigrant student groups differed in specific factors related to university adjustment. Contrary to previous research showing that parents' level of education is a predictor of children's academic success (Finnie & Mueller, 2008), in the Canadian-born group in this study, neither parent's educational level was significantly associated with academic adjustment, but each was positively associated with participants' social adjustment. These findings support previous research showing that more educated parents have wider social networks and better social skills than less educated parents

(Campbell, Marsden, & Hurlbert, 1986), and that parents' social skills positively affect their children's sociability (Okumura & Usie, 2010).

Interestingly, parental income was not correlated with academic adjustment in the Canadian-born group and was only marginally correlated with Attachment to University. This finding contradicts previous research on the association between family income and academic achievement (Sirin, 2005). According to Sirin's (2005) meta-analyses of 56 studies on socioeconomic status and academic achievement, family income predicts academic achievement.

In contrast to the Canadian-born group, parents' income in the foreign-born groups was positively correlated with Personal-Emotional Adjustment and GPA indicating that children of wealthier immigrants had better academic performance and personal-emotional adjustment at university than those of less wealthy parents. This pattern of results is consistent with the findings of Sirin (2005) who reported a socioeconomic status-achievement relation, but inconsistent with the results of Beiser et al. (2010) who found that income was not associated with personal-emotional adjustment of immigrant children. Considering the fact that both the present study and the study of Beiser et al. (2010) included a high percentage of participants with Asian backgrounds, it is difficult to explain this contradiction.

That there was a link between parental income and GPA in the foreign-born group, but not in the Canadian-born group, may have several explanations. It is possible that for the foreign-born group, in their countries of origin family income played a relatively more important role in determining students' neighbourhood and school than it does in Canada, and hence provided more resources for successful learning and preparing students for university. Another explanation may lie in the particular difficulties experienced by lower income foreign-born students with financing their education and higher levels of employment that negatively impact GPA. At this time these explanations are speculative and could be addressed in future research.

Another possible explanation is that the lower-income Canadian-born students were more likely to drop out in first year whereas the lower-income foreign-born students did not drop out because of stronger cultural expectation for university education.

The explanation for the association between personal-emotional adjustment and parental income in the Foreign-born group is not clear, but it may have some relationship to financial difficulties and/or potential negative changes in social status that immigrant families tend to face during the post-migration period (Beiser et al., 2010; Kolaitis et al., 2003; Leavey et al., 2004; Ma, 2010; Sluzki, 1979). This difference between Canadian-born and foreign-born students may be attribute to immigration rather than cultural factors.

In contrast to demographic variables, the analysis of relationship variables in this study yielded similar results in the Canadian-born and foreign-born groups. In both groups, personal-emotional adjustment was positively associated with relationship with mother, which may suggest a universal role of the mother in human personal-emotional development. This finding partially supports the previous research on students' adjustment to university and parental attachment (Melendez & Melendez; 2010). However, in contrast to the present study Melendez and Melendez (2010) found that relationship with both parents predicted personal-emotional adjustment of students to university. Therefore, in the present study relationship with father and relationship with mother each seemed to play a different role in students' social-emotional adjustment. Again, this discrepancy could be attributed to the sample differences between the studies, namely, the prevalence of Asian participants in the current study and the African American and Hispanic minority participants in the study of Melendez and Melendez (2010).

Finally, the most surprising finding was lack of an association between the immigration variables (Years Lived in Canada and Age of Arrival to Canada) and any of the adjustment scores in the Foreign-born group. This is not consistent with previously published findings on immigrants' adjustment (Berry et al., 2006; Cheung et al., 2011). In contrast to Cheunge et al's (2011) study, in the present study no evidence for a sensitive period to acculturation was detected. Among foreign-born students variables such as years lived in Canada and age of arrival to Canada may not correlate with adjustment variables because all study participants' English proficiency was adequate in order to meet university requirements. Therefore, this suggests that the sensitive period of acculturation found be other researchers may reflect a peak learning period of English language skills for participants.

4.2. Limitations

The study includes some limitations that have to be considered in evaluating the results.

The study relied on self-reported data, and it therefore lacked a degree of objectivity. Some participants may have over- or under-estimated their degree of adjustment to university, plus their ratings could be subject to personal interpretation of the scales. A future study might collect more information from other sources (from face-to-face interviews, for example) which could address this limitation.

The questionnaire did not include questions that could identify second generation immigrants, who are Canadian born individuals and who have at least one parent born outside Canada (Statistics Canada, 2011). In this study, second generation immigrants were included with the Canadian-born group of participants which in turn might have contributed to lack of differences in social-emotional, personal, or academic adjustment to university between the two groups. Instead of only comparing Foreign-born and Canadian-born groups, a future study should compare Immigrant and Non-Immigrant groups, with the Immigrant group divided into two subgroups: Foreign-born immigrants; and Canadian-born second generation immigrants.

Since individuals of Asian ethnic origin may have dominated both groups of participants in this study, the sample may not be representative of the entire foreign-born population in Canada. Further studies conducted in areas with more diverse foreign-born populations could address this limitation.

The small sample size in the current study might have created a power problem that future studies could address with a larger sample size. In addition, the study's sample might not be reflective of all Canadian students due to possible personality differences between students who elect to take Education courses in particular and/or choose to study German versus other languages. Re-doing the survey with a larger and more representative sample could prove to validate the results, and be a possible extension to this study.

In evaluating the results of possible protective factors, it is important to keep in mind that these data are correlational and do not demonstrate causality. It is possible that students who have particular traits that facilitate personal-emotional adjustment also have close relationships with their mothers. Thus, all these protective factors may be interconnected in such a way that they cannot be easily separated. Therefore, more research is needed to investigate causality in order to better understand it.

4.3 Future Research Directions

Future research needs to continue examining possible differences between immigrant and non-immigrant students' adjustment to university and various other factors associated with students' adjustment to university. The inclusion of larger and more diverse groups of participants possibly from other provinces is recommended in order to investigate differences in adjustment among different ethnic groups.

Questions on roles of English language proficiency and immigrant students' interactions with peers of their own ethnic backgrounds in relation to students' adjustment to university remain unanswered at present. Therefore, further studies, which take these language and social variables into account, will need to be undertaken in order to provide such answers.

4.4. Implications

While raising new questions, the present study contributes to existing research on the adaptation of foreign-born youth to the host culture as well as to findings on students' adjustment to university.

Since the Canadian-born students reported better attachment to university than foreign-born students, educators and university staff may have to be provided with special training informing them of particular difficulties and needs that immigrant students may experience. More research will be needed to explore the types of interventions that could prove useful in this regard. Furthermore, informational sessions and a variety of counselling services that target immigrant students may provide effective transitional assistance in these students' attachment to university.

Another notable finding related to immigrant students is the lack of association between years since immigration, age of arrival to Canada and immigrant students' adjustment to the host culture. This does not support the existence of a sensitive period of acculturation and implies that other factors (e.g. English language proficiency) may play a more important role in immigrants' adjustment.

The current study also contributes to existing research on various factors that can predict effective adjustment to university settings. Although it is impossible to affect parental income or education levels of new students, educators and university staff may benefit from the provision of special training informing them of particular difficulties in student adjustment that lower income students of both immigrant and Canadian origins may experience.

Finally, considering the challenges of adjustment to a new culture, the lack of differences in adaptation between the Canadian-born and immigrant student groups in social-emotional, personal, or academic adjustment may demonstrate immigrant students' success at adapting to university, which in turn could be considered evidence for a well-developed immigration policy and immigrant-friendly environment in Canada.

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Appendix A.

Consent Form

A Comparison of Adjustment to University between Immigrant and Non-Immigrant Students

Who is conducting the study?

Principal Investigator: Veta Chitnev, SFU, Faculty of Education,

Tel. xxx, email: xxx

Supervisor: Dr. Lucy Le Mare, SFU, Faculty of Education,

Tel: xxx, email: xxx

Why are we doing this study?

The study will compare adjustment to university between immigrant and Canadian-born university students. Your participation will help investigate possible factors that predict social-emotional adjustment of students to university. The results of this study will be reported in a graduate thesis and may also be published in journal articles.

Your participation is voluntary

You have the right to refuse to participate in this study. If you decide to participate, you may still choose to withdraw from the study at any time without any negative consequences to the education, employment, or other services to which you are entitled or are presently receiving.

How is the study done?

You will receive a questionnaire containing some demographic questions and questions about your university experience. Please complete the questionnaire at your convenience and bring it to your next class where it will be collected by the study team. It is estimated that it will take you approximately 15 minutes to complete the questionnaire.

Are there any potential risks to you in participating in the study?

There are no known risks and/or discomforts associated with this study. If some of the questions in the questionnaire seem sensitive, you do not have to answer any questions if you do not want to.

What are the benefits of participating?

There may or may not be direct benefits to you from taking part in this study. However, in the future, others may benefit from what we learn in this study because the study may identify protective factors that allow students to adjust to university settings effectively.

How will your identity be protected?

It is extremely unlikely that your personal information can be traced back to you. However, any information that may identify you through a combination of indirect identifiers, such as your age or other unique personal characteristics, will be removed from the data, and key codes will be assigned to various age groups and places of birth. The completed questionnaires will be kept in a secure location with restricted access only to Dr. Le Mare and Veta Chitnev. If the results are published, it will not be possible to match any individual response with any data published.

What if I decide to withdraw my consent to participate?

If you choose to enter the study and then decide to withdraw at a later time, all data collected about you in this questionnaire will be destroyed.

Permission from SFU Research Ethics Board

Permission to conduct this research study from SFU Research Ethics Board has been obtained. This Board aims to protect the rights of human research participants.

Dissemination of the results and future use of the data

The study is part of an MA thesis in Educational Psychology, and once submitted for the degree, will exist in the public domain. The data and study results may be used by researchers for academic publications and for educational purposes

Who can you contact if you have questions about the study?

If you have questions about the study, please contact us at vchitnev@sfu.ca. We expect to complete the research by the end of June, and if you are interested in our findings, do not hesitate to contact us. We would be happy to share the findings with you.

Who can you contact if you have complaints or concerns about the study?

If you have any concerns about your rights as a research participant and/or your experiences while participating in this study, you may contact Dr. Jeffrey Toward, Director, Office of Research Ethics, email xxx or phone: xxx.

CONSENT

Taking part in this study is entirely up to you. You have the right to refuse to participate in this study. If you decide to take part, you may choose to pull out of the study at any time without giving a reason and without any negative impact on your class standing. By submitting this questionnaire, you are consenting to participate in this research study.

Appendix B.

Demographic Questions

Please write in the most appropriate response:

How old are you?

In what country were you born?

What language did you speak at home while growing up?

What language do you primarily speak at home now?

What are you majoring in/ planning to major in?

What is your cumulative grade point average (GPA)?

At what age did you arrive in Canada

(For foreign-born students only)

How many years have you lived in Canada?

(For foreign-born students only)

Please check the most appropriate responses:

What is your gender? ☐ Male ☐ Female

Are you an international student? ☐ Yes ☐ No

What year of university are you currently enrolled in?

☐ 1st Year ☐ 2nd Year ☐ 3rd Year ☐ 4th Year ☐ 5th Year ☐ other

What was the approximate income of your parents or guardians before taxes last year?

☐ \$0 - \$30,000 ☐ \$30,000-\$60,000 ☐ \$60,000-\$90,000 ☐ \$90,000+

What is the highest level of education your father has completed?

☐ Did not attend school ☐ Elementary school ☐ High school ☐ College
☐ Undergraduate/ Graduate

What is the highest level of education your mother has completed?

☐ Did not attend school ☐ Elementary school ☐ High school ☐ College ☐ Undergraduate
☐ Graduate

What is your household organization?

☐ I live in my parental home ☐ I live alone ☐ I live with a roommate(s)
☐ I live with my partner

Appendix C.

Parent and Peer Attachment Questions

1. My mother respects my feelings.
2. I feel my mother does a good job as my mother.
3. My mother accepts me as I am.
4. My mother expects too much from me.
5. I get upset easily around my mother.
6. I get upset a lot more than my mother knows about.
7. When we discuss things, my mother cares about my point of view.
8. My mother has her own problems, so I do not bother her with mine.
9. I feel angry with my mother.
10. I tell my mother about my problems and troubles.
11. My father respects my feelings.
12. I feel my father does a good job as my father.
13. My father accepts me as I am.
14. My father expects too much from me.
15. I get upset easily around my father.
16. I get upset a lot more than my father knows about.
17. When we discuss things, my father cares about my point of view.
18. My father has his own problems, so I do not bother him with mine.
19. I feel angry with my father.
20. I tell my father about my problems and troubles.