Underemployment and Adaptation of Skilled Immigrants: Direct and Moderating Effects of Job Satisfaction and Acculturation

by

Omorowa Eguakun

A Thesis
presented to
The University of Guelph

In partial fulfilment of requirements
for the degree of
Master of Arts
in
Psychology

Guelph, Ontario, Canada

© Omorowa Eguakun, January, 2020
ABSTRACT

UNDEREMPLOYMENT AND ADAPTATION OF SKILLED IMMIGRANTS: THE DIRECT AND MODERATING EFFECTS OF JOB SATISFACTION AND ACCULTURATION

Omorowa Eguakun  Advisor:  Dr. S. Safdar
University of Guelph, 2020

Adaptation outcomes of skilled immigrants in Canada is hindered by underemployment, meaning skilled candidates are employed in occupations for which they are overqualified. The challenges of overqualification for jobs and its impact on the adaptation process could be influenced by job satisfaction. This study aims at investigating the relationship between underemployment and psychological, sociocultural and economic adaptation of skilled immigrants, and whether such relationships are impacted by job satisfaction and acculturation orientation. From an online survey of 133 skilled immigrants across Canada, the results indicate that a relationship between underemployment, economic adaptation, sociocultural adaptation, and psychological adaptation exists, and that this relationship is not moderated by job satisfaction, but rather mediated by job satisfaction. Findings also suggests that host orientation is a factor that is connected to work experiences and adaptation outcomes among skilled immigrants. Implications and limitations of this study are discussed and recommendations for future research are presented.
ACKNOWLEDGEMENTS

Medaase.. – “Thank you”, in Twi.

When I first told my dad that I had been accepted into the master's program at the University of Guelph, he told me, “Omorowa, grad school was one of the best -and poorest- times of my life.”

He was right.

Where I come from, family and community are everything. I am beyond grateful for the community that has surrounded and cared for me as I grew as a researcher. They have been there for me during what has been some of the most difficult and rewarding years of my life so far.

To Saba, thank you for believing in me even when I sometimes doubted myself. Thank you for your support, advice, and guidance. I value you giving me opportunities to learn from you and our projects. You taught me that it was okay to make mistakes. You also always encouraged me to pursue my passions. I am so proud to call you my mentor and friend.

Gloria, thank you for being there for me, and for bringing your unique perspectives to this project. I am happy that you agreed to take part in this; your help has been invaluable (including your advice to use sticky notes). To Kieran, thank you for being a member of my committee. To Nada, thank you for being there every step of the way during analysis.

To my friends and colleagues at the Centre for Cross-Cultural Research and psychology department: Kimberley, Rima, Ashna, Lindsay, Melisa, Helia, Elcin, Zoha, Tristan, Brittany, Jessica, Sarah and Alexis – thank you for keeping me grounded. Thank you to my friends across the country and around the world —Alejandro, Laura, Nerea, Kyrsten, Allyson, Marnie, and Ali. Each and every one of you has been an incredible source of support, and I cherish having you all in my life.

And finally, to my parents: thank you for loving me, and for sharing your experiences with me so that I could share them with others. Dad, more affectionately known as my “shadow external committee member”, thank you for the endless laughter and support, for reading each draft, and for making me defend every detail in my work. Mom, thank you for your encouragement, and for teaching me to have confidence. Thank you for being my rock and for never doubting – not even for a second—that I could do this.
TABLE OF CONTENTS

Abstract ............................................................................................................................ ii
Acknowledgements ......................................................................................................... iii
Table of Contents ............................................................................................................ iv
List of Tables .................................................................................................................. vii
List of Figures (if any) .................................................................................................... viii
List of Appendices ........................................................................................................... ix
Introduction ..................................................................................................................... 1
Literature Review ............................................................................................................. 4
   Understanding Underemployment ................................................................................. 6
   Factors Related to Underemployment among Skilled Immigrants ............................. 6
   Consequences of Underemployment ........................................................................... 8
Theoretical Framework: Person-Job Fit Theory .............................................................. 9
Adaptation ....................................................................................................................... 10
   Psychological adaptation. ...................................................................................... 10
   Sociocultural adaptation. ........................................................................................ 12
   Economic adaptation............................................................................................... 13
Job Satisfaction .............................................................................................................. 14
Acculturation ................................................................................................................ 16
Method .......................................................................................................................... 18
   Summary of Power Analyses .................................................................................. 18
   Participants .............................................................................................................. 19
   Response rate and sample size .............................................................................. 19
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Procedure</td>
<td>20</td>
</tr>
<tr>
<td>Data Collection and Measurement</td>
<td>21</td>
</tr>
<tr>
<td>Demographics</td>
<td>21</td>
</tr>
<tr>
<td>Work experience</td>
<td>21</td>
</tr>
<tr>
<td>Acculturation orientation</td>
<td>23</td>
</tr>
<tr>
<td>Psychological adaptation</td>
<td>24</td>
</tr>
<tr>
<td>Sociocultural adaptation</td>
<td>24</td>
</tr>
<tr>
<td>Economic adaptation</td>
<td>24</td>
</tr>
<tr>
<td>Results</td>
<td>25</td>
</tr>
<tr>
<td>Comparison between Migration Programs</td>
<td>25</td>
</tr>
<tr>
<td>Descriptive Statistics and Correlations</td>
<td>26</td>
</tr>
<tr>
<td>Hierarchical Regression Analysis</td>
<td>29</td>
</tr>
<tr>
<td>Economic adaptation</td>
<td>29</td>
</tr>
<tr>
<td>Sociocultural adaptation</td>
<td>30</td>
</tr>
<tr>
<td>Psychological adaptation</td>
<td>31</td>
</tr>
<tr>
<td>Post Hoc Mediation Analysis</td>
<td>32</td>
</tr>
<tr>
<td>Discussion</td>
<td>34</td>
</tr>
<tr>
<td>Perceived No Growth and Adaptation Outcomes</td>
<td>35</td>
</tr>
<tr>
<td>Role of gender in psychological adaptation</td>
<td>36</td>
</tr>
<tr>
<td>Role of Job Satisfaction</td>
<td>37</td>
</tr>
<tr>
<td>Acculturation Orientation, Work Experience, and Adaptation Outcomes</td>
<td>38</td>
</tr>
<tr>
<td>Practical Implications</td>
<td>39</td>
</tr>
<tr>
<td>Limitations and Future Directions</td>
<td>41</td>
</tr>
<tr>
<td>Conclusion</td>
<td>42</td>
</tr>
</tbody>
</table>
LIST OF TABLES

Table 1 Results of ANOVA for Mean Job Satisfaction, Perceived Overqualification, Acculturation Orientation, and Adaptation Between Family and Economic Programs. .57

Table 2 Descriptive Statistics for Survey Participants. .................................................. 58

Table 3 Relationships between Acculturation Orientation, Work Experiences, and Adaptation Outcomes. ................................................................................................... 59

Table 4 Results of Modelling Economic, Sociocultural and Psychological Adaptation as a function of Perceived Overqualification. ........................................................................ 60
LIST OF FIGURES

Figure 1. Regression coefficients for the relationship between perceived no growth and economic adaptation as mediated by job satisfaction. .................................................. 61

Figure 2. Regression coefficients for the relationship between perceived no growth and sociocultural adaptation as mediated by job satisfaction. .............................................. 61

Figure 3. Regression coefficients for the relationship between perceived no growth and psychological adaptation as mediated by job satisfaction. ............................................ 62
LIST OF APPENDICES

Appendix A: Poster for Recruitment ................................................................. 63
Appendix B: Demographics ........................................................................... 64
Appendix C: Johnson and Johnson (2000) Perceived Overqualification Scale ....... 65
Appendix D: Cammann, Jenkins & Nadler (1975) Michigan Organizational Assessment Questionnaire Job Satisfaction Subscale (MAOQ-JSS) ................................................................. 66
Appendix E: Demes & Geeraert (2014) Brief Acculturation Orientation Scale ...... 67
Appendix F: Demes & Geeraert (2014) Psychological Adaptation Scale ............. 68
Appendix F: Demes & Geeraert (2014) Psychological Adaptation Scale ............. 69
Appendix G: Demes & Geeraert (2014) Sociocultural Adaptation Scale .............. 70
Appendix I: REB Approval ........................................................................... 72
Appendix J: Consent for MTurk ..................................................................... 73
Appendix K: Consent for Participants Through Recruitment ............................ 76
Appendix L: Supplementary Analyses .............................................................. 80
Introduction

Immigration plays a pivotal role in the Canadian labour market. The immigration program—as determined by the Immigration and Refugee Act—is intended to “support the development of a strong and prosperous Canadian economy, in which the benefits of immigration are shared across all regions of Canada” (Government of Canada, 2019). In the past two years, Canada has been accepting many migrants from around the world, primarily through a variety of economic and skilled worker programs (Smith, Siddiq, Thevenot, & Turner, 2019). Immigrants who migrate through economic and skilled worker programs are typically people who have specific occupational skills, experience or educational background that meet the needs of Canada’s labour market and are beneficial to the Canadian economy. This category of immigrants includes management occupations, professional occupations, technical occupations and skilled trades, yet they encounter various employment opportunities when they arrive in Canada. This significant life event has the potential to positively change a person’s life, but it can also pose many challenges—most notably, underemployment and its resulting impact on integration into Canadian society.

Within psychological literature, there is substantial research on the employment experiences of immigrants. Specifically, the concept of underemployment has garnered interest from researchers, where an individual is employed in a position that does not fully utilize their skills and abilities, compared to their previous position (Feldman, Leana, & Bolino, 2002; Feldman & Turnley, 1995). This is an unfortunate reality for many immigrants that arrive in any new country, but it is especially unfortunate given
that Canada grants preferential consideration to those with skills and abilities that
benefit the labour market (Man, 2004). Researchers have studied this phenomenon in a
variety of approaches – from analysis of census data to qualitative studies—and have
come to the conclusion that underemployment has a significant impact on the well-being
of immigrants (Chen, Smith, & Mustard, 2010; Subedi & Rosenberg, 2016). Research
suggests that the experience of not being able to find suitable employment can result in
loss of professional identity and social status, while also alienating an individual from
their desired goal of fully integrating into society. As a result, this may lead immigrants
to be less inclined to become part of Canadian society (Aycan & Berry, 1996; Grant &
Nadin, 2007; Wilson-Forsberg, 2015).

Very few researchers have explored the connection between underemployment
and the impact it has on the overall adjustment process of immigrants, particularly in the
Canadian context (Austin & Este, 2001). Several studies show the existence of the
precarious, temporary, “survival” employment that immigrants are typically introduced to
in order to gain Canadian work experience (Creese & Wiebe, 2009; Dean & Wilson,
However, very few researchers have explored how immigrants perceive the jobs that
they are able to secure when they first arrive to a new country, as well as whether they
are satisfied with their job (Chuba, 2016; Wang & Jing, 2018). Migration for economic
purposes puts work at the forefront of an individual’s experience and can serve as a
catalyst for other positive or negative experiences when settling in a new cultural
context. Therefore, there is value in exploring how underemployment impacts
adaptation and whether satisfaction with work can directly or indirectly impact this relationship. The present study aims to address this gap by exploring employment experiences and job satisfaction, and the impact these factors have on the process of adaptation amongst skilled immigrant populations.

Employment experiences add a layer of complexity for immigrants, as they not only face barriers in finding employment that reflects their skills and training, but they have to navigate an unfamiliar society with its own cultural customs, traditions, and values (Aycan & Berry, 1996). When studying the relationship between underemployment and adaptation amongst immigrant populations, it is important to consider acculturation, or the change in cultural patterns that results from different cultural groups experiencing regular and extended contact with one another (Redfield, Linton, & Herskovits, 1936, pp. 149). Acculturation has been widely studied in the field of cross-cultural psychology (Berry, 1997; Berry & Hou, 2016; 2017; Safdar et al., 2012; Sam & Berry, 2010). In particular, researchers have sought to understand migrant attitudes towards this process of cultural change, known as acculturation orientation. These attitudes are based on two dimensions – the extent to which immigrant populations interact with the new, larger society, and one’s preference for maintaining their cultural traditions and values (Berry, 1997; Sam & Berry, 2010).

Several studies have established that immigrants have benefitted from a high affinity for both the maintenance of one’s heritage, as well as desire for interacting with the larger society (Berry, 1997; Hou, Schellenberg, & Berry, 2016; Kosic, Mannetti, & Sam, 2006; Van Oudenhoven, Prins, & Buunk, 1998). Measuring acculturation
orientation has given way to a number of methods—for example, one of the more notable forms of measurement consists of a four-category approach, known as strategies (integration, assimilation, separation and marginalization), based on the combination of the two dimensions (Berry, 1997). While these strategies have provided a meaningful framework with supporting literature, there are conceptual and statistical criticisms that suggest that a continuous approach separating the two dimensions may be more favourable (Arends Toth & Van de Vijver, 2007; Demes & Geeraert, 2014; Rudmin, 2009).

Research has left room to explore the connection between acculturation orientation and immigrant employment experiences using these continuous dimensions – there are some studies that have explored acculturation orientation amongst professional immigrants in the workplace and its impact on job satisfaction in Australia (Lu, Samaratunge, & Hartel, 2011; Lu et al., 2012), as well as its connections with perceived overqualification in Germany (Wassermann, Fujishiro, & Hoppe, 2017; Wassermann & Hoppe, 2019). The present study therefore, aims to expand the literature on acculturation, immigrant work experiences and job satisfaction, particularly within the Canadian context.

**Literature Review**

Canada’s present immigration policy benefits from the social and economic integration of immigrants (Government of Canada, 2018); the federal government advertises the idea that foreign-born people can migrate and resettle in Canada with
previously acquired work experience, skills and education – these attributes were chosen in order to aid migrants in seamlessly integrating and contributing to society (Man, 2004). From 2011 to 2016, Canada has accepted approximately 1,212,075 immigrants (Statistics Canada, 2017). The Economic class is the primary pathway that individuals apply to for migration, with approximately 58.4% of applicants being accepted through this program (Hudon, 2015). However, recent statistics from 2011 to 2016 indicate that in the Economic program, the employment rate for individuals with a bachelor’s degree or higher from a foreign institution is only 71.9% (Statistics Canada, 2016). Despite Canada’s request for highly skilled, highly educated immigrants through Economic programs, statistics show that there is a disproportionate number of immigrants who are unable to acquire full-time positions in their fields of expertise, often acquiring work in which they are overqualified or over skilled (Dean & Wilson, 2009; Zietsma, 2010).

Using Canadian census data, Zietsma (2010) conducted a study on immigrants working in regulated occupations and found that foreign-educated immigrants are less likely to work in their fields of study compared to their Canadian counterparts. Specifically, in 2006, 62% of the 937,050 Canadian-born workers were working in the regulated profession for which they trained, compared to only 24% of 284,080 foreign-educated immigrants. This disparity persists even after 10 years of living in Canada – foreign trained individuals trailed the match rate of Canadian-born workers by 27% (Zietsma, 2010). Overall, this phenomenon commonly known as underemployment,
occurs more frequently for immigrants compared to Canadian-born populations (Hudon, 2015).

**Understanding Underemployment**

Underemployment describes a state of employment where individuals are working in jobs which are substandard, compared to their goals and expectations (Feldman, Leana, & Bolino, 2002). In several studies with immigrant populations, underemployment is conceptualized as an underutilization of a person’s skills and education in work that takes place in the country of settlement (Bolino & Feldman, 2000; Feldman & Turnley, 1995; Guerrero & Rothstein, 2012;). Alternatively, underemployment has also been described as overqualification; Johnson and Johnson (2000) suggest that overqualification consists of two dimensions: mismatch (having more education than the job requires) and no growth (very little opportunity to utilize their skills).

**Factors Related to Underemployment among Skilled Immigrants**

Research on immigrant employment experiences suggest several factors that play a role in underemployment occurring. The most frequently discussed in the literature is the devaluing of education acquired outside of Canada (Creese & Wiebe, 2009; Ferrer & Riddell, 2008; Grant & Nadin, 2007). In some cases, foreign institutions may be viewed as inferior to Canadian schools, or employers are unfamiliar with the institutions or curriculum and are unable to judge their merits. Another barrier stems from regulatory bodies protecting the market position of professional certification (Zikic
et al., 2011). This is further complicated by the very little information that is provided to prospective immigrants on the Canadian equivalency for their credentials (Zikic et al., 2011).

Other factors often discussed are the immigrant’s unfamiliarity with the Canadian labour market, and lack of Canadian employment experience (Dean & Wilson, 2009; Wald & Fang, 2008). A report by the Toronto Region Immigrant Employment Council (TRIEC, 2018) indicated that “Canadian work experience” is often used in job postings by employers to assess whether immigrants have the “soft” skills to be successful in the workplace (TRIEC, 2018). As a result, immigrants have resorted to obtaining Canadian degrees and qualifications that improve their networking abilities and increase their knowledge about the labour market (Shan, 2009; TRIEC, 2018). However, this may not be a viable option for many immigrants, due to situational circumstances such as family, time commitment, and finances.

Evidence has demonstrated that some personal characteristics may intersect with these factors of underemployment and could play a role in immigrant employment experiences – for instance, despite becoming a predominant number of principal applicants (Hudon, 2015), immigrant women are more likely to occupy jobs that do not require their level of education. The same can be said for immigrants who identify as visible minorities – a visible minority is defined under the Employment Equity Act as ‘persons other than Aboriginal personas, who are non-Caucasian in race or non-white in colour’ (Chui & Maheux, 2011). Some authors argue that the knowledge and skill of
recent immigrants is bound by ethnicity and national origin, which further contributes to their negative employment experiences (Guo, 2015).

**Consequences of Underemployment**

Despite the notable emphasis that the Canadian government places on human capital for economic benefits (Reitz, 2001; Sweetland, 1996; Tastsoglou & Preston, 2005), the mismatch of qualifications and job opportunities serves as an unfortunate barrier for immigrants. Economically, the problem of underemployment exacerbates the human capital issue amongst immigrants, one that signifies society underutilizing valuable economic resources, while also hindering individuals from fully using skills and qualifications that the Canadian government purposely targets (Reitz, 2001; Reitz, Curtis, & Elrick, 2014; Sweetland, 1996).

Not only does this issue have significance on a macroeconomic scale, it is also relevant on an individual level. Work is a central part of an individual’s experience, arguably more so for individuals that migrate to a new country based on their education, skills and ability to work in the Canadian labour market. Underemployment at the start of an immigrant’s working life in Canada can have long-lasting impact (TRIEC, 2018); these consequences not only prevent immigrants from fully using their abilities to contribute to the economy (Creese & Wiebe, 2009; Guo, 2015; McKee-Ryan & Harvey, 2011), but it can also result in psychological difficulties for the individual, as well as systemic effects on future generations (Dean & Wilson, 2009; Slack & Jensen, 2007; Subedi & Rosenberg, 2016).
Theoretical Framework: Person-Job Fit Theory

Employment experiences in the behavioural sciences, specifically underemployment, have been studied using two main theories: Relative Deprivation Theory and Person-Job Fit (Luksyte & Spitzmueller, 2011). In particular, the Person-Job fit theory is useful for assessing underemployment based on the work obtained by migrants.

Person-Job Fit theory conceptualizes underemployment in two forms: demands-abilities, where an employee’s skills and knowledge are appropriate for the requirements of the job, and needs-values, which measures whether the employee’s needs, desires and preferences are satisfied by the jobs that they perform (Kristof-brown, Zimmerman, & Johnson, 2005). More specifically, the needs-values conceptualization of person-job fit theory has been used to examine immigrant employment experiences (Wassermann, Fujishiro, & Hoppe, 2017; Wassermann & Hoppe, 2019). Proper fit between an individual’s needs and job has been conducive to environments where people are able to both engage with their work and have the opportunities to increase their professional success (Liu, Luksyte, Zhou, & Shi, 2015; Wassermann & Hoppe, 2019), whereas misfit – such as overqualification – is considered to be a stressful experience, which can impact health, psychological well-being, and adjustment (Chen, Smith, & Mustard, 2010; Wassermann & Hoppe, 2019; Wilson-Forsberg, 2015). Work often provides a source of income, as well as an opportunity for social interaction with the host society, while enhancing immigrant identity, professional status, self esteem and role in society (Aycan & Berry, 1996; Neto,
Wilks, Cristina, & Fonseca, 2018). Given the importance of work in shaping migrant experiences, there is potential for a mismatch that occurs between the person’s needs and job fit (i.e. underemployment), to impact immigrant adjustment and adaptation to a new society.

**Adaptation**

Considering that Canada seeks highly skilled immigrants that can contribute to and integrate into society both socially and economically, it is of utmost importance to investigate the realities that these individuals experience based on those dimensions. Over time, immigrants come to familiarize themselves with new cultural contexts – a process known as adaptation (Berry, 1997). Adaptation has been differentiated and conceptualized in three ways: psychological adaptation, sociocultural adaptation, and economic adaptation.

**Psychological adaptation.** Psychological adaptation refers to change and processes that occur internally, such as changes in personal and cultural identity, mental health, etc. (Berry, 1997). In underemployment literature, outcomes of psychological adaptation have typically been measured through life satisfaction or psychological well-being (Berry & Hou, 2016).

In the context of work and underemployment among immigrants, studies have shown that job mismatch is a significant contributor to life satisfaction (Berry & Hou, 2016; Frank & Hou, 2017; Premji & Shakya, 2017). For example, in one study, Frank and Hou (2017) explored the relationship between over-education and life satisfaction
among university educated immigrants and Canadian born workers. They found that overeducation was more prevalent among people who migrated to Canada, compared to people born in Canada. Although the match between education and occupation was highly associated with life satisfaction, this effect was not as strong for immigrant workers that migrated to Canada compared to Canadian born workers. However, when demographic, work and income characteristics were taken into consideration, this effect was no longer significant, suggesting that these aspects account for most of the negative effect over-education had on immigrant's life satisfaction. The authors proposed that this weaker connection could be attributed to overeducation being a common experience among immigrants. They also suggested that this outcome could be due to individuals re-evaluating their unattainable goals, shifting importance to more obtainable goals or other life domains (Sprangers & Schwartz, 1999).

While the outcomes measured contribute to our understanding of immigrant experiences, there lacks the specific context of cultural relocation. Demes and Geeraert (2014) stipulate that general well-being and life satisfaction of immigrants are part of psychological adaptation, but they are also impacted by several other factors. Thus far, there is little research that explores the impact of underemployment on perceptions of adjustment in a new country among skilled immigrants. This distinction allows for an unambiguous interpretation of how comfortable or out of place migrants feel as a result of resettlement in their new country, rather than other confounding variables (Demes & Geeraert, 2014).
**Sociocultural adaptation.** Sociocultural adaptation refers to outcomes that connect individuals to their experiences in the new society – such as family, school, and work. This form of adaptation corresponds to the interactive social learning that takes place and develops during an immigrant’s transition to a new cultural context (Searle & Ward, 1999). Some studies have highlighted how familiarity with cultural norms and values of the larger society plays a role regarding the employment experiences of immigrants, specifically for underemployed skilled immigrants. It appears that individuals with higher levels of familiarity with the culture of the larger society tend to have a better understanding of their own behaviour and that of others, particularly through social interactions, which, is a helpful trait for job seeking immigrants (Guerrero & Rothestein, 2012). In a qualitative study on employment barriers among Latin American MBA’s, 55% of participants identified cultural differences and lack of familiarity with Canadian culture as a hinderance to both personal and professional well-being (Turchick Hakak, Holzinger, & Zikic, 2010).

While connections have been made with how social components influence the likelihood of obtaining jobs that match their qualifications (Dustmann & Fabbri, 2003; Neto et al., 2018; Woodend, 2014), there is very little information that focuses on sociocultural adaptation outcomes for those who are underemployed. It is possible that working in potentially strenuous environments, like temporary, dangerous, and precarious work environments can have an impact on how immigrants navigate their everyday experiences in a new cultural context. Given that work plays an important role in an individual's life, it is imperative that researchers explore how the overqualification
of one’s skills and/or overeducation in a job position can impact the behavioural competence of immigrants in a new sociocultural context (McKee-Ryan & Harvey, 2011).

**Economic adaptation.** Lastly, economic adaptation refers to the degree to which work is obtained, is satisfying and is effective in the new culture (Berry, 1997). In Aycan and Berry’s (1996) study on the impact of employment-related experiences, economic adaptation was established as an important part of an immigrant’s adaptation process. While the study explored immigrants general employment experiences, there is a need to further understand this concept in relation to the specific experience of underemployment among skilled immigrants, an experience that is still prevalent for immigrant populations in Canada today (Chuba, 2016; Hudon, 2015; McKee-Ryan & Harvey, 2011; Premji & Shakya, 2017; Subedi & Rosenberg, 2016; TRIEC, 2018). Overall, the study was seminal to establishing employment and work as an important aspect of an immigrant’s life that affects more than just economically (Aycan & Berry, 1996). The findings showed that work gives immigrants a sense of purpose, established status and identity, and allows for individuals to create relationships with others, which all assist the process of adaptation (Aycan & Berry, 1996).

To date, there is little known research that has investigated the relationship between underemployment and adaptation desired by immigrants. If Canada seeks highly skilled immigrants that can contribute to and integrate into society socially and economically, it is of utmost importance to investigate the realities that these individuals experience based on those dimensions. Therefore, the first research objective of the
present study is to explore the relationship between underemployment and adaptation –
psychological, sociocultural, and economic.

*Research Question 1: What is the nature and magnitude of the relationship between underemployment and adaptation among skilled immigrant workers?*

There are some indications from the literature that there may be a negative
relationship between underemployment and adaptation (Aycan & Berry, 1996; Berry &
Hou, 2017; Chen et al., 2010; Guerrero et al., 2012; Premji & Shakya, 2017).
Consequently, the current study hypothesizes that:

Underemployment negatively predicts economic (Hypothesis 1a), sociocultural
(H1b) and psychological (H1c) adaptation among skilled immigrant workers.

**Job Satisfaction**

Job satisfaction is a domain of work-related wellbeing explored in organizational
literature, defined as an individual’s emotional evaluation of their job (Neto & Wilks,
2018; Wang & Jing, 2018). Researchers suggest that job satisfaction has been
predicted by the demands of a job under certain circumstances, such as the work
requiring significant effort or an increase in duties (Wang & Jing, 2018).

The relationship between underemployment and job satisfaction among
immigrants is presently inconclusive (Wang & Jing, 2018). McGuinness and Byrne
(2014) have discovered that while some immigrants who are over skilled and
overeducated experience low job satisfaction, others do not. The authors proposed a
variety of reasons for the differences including greater work-life balance and job security (McGuinness & Byrne, 2014). Other researchers found that working at a job that requires less skill than what the employee is capable of can minimize psychological stress (Wang & Jing, 2018). Measuring job satisfaction for immigrants who perceive themselves to be underemployed has a variety of implications in understanding the relationship between underemployment and adaptation. A recent study on job related well-being and satisfaction among immigrants observed that a significant proportion of job satisfaction was attributed to sociocultural adaptation factors, suggesting that job satisfaction can play a role in adaptation (Neto et al., 2018).

Given the connection between job satisfaction and underemployment there is a need to further explore the impact job satisfaction on the relationship between underemployment and adaptation among skilled immigrant workers. If negative feelings towards the work that underemployed immigrants obtain are being compensated by aspects of the job, then there are implications as to how organizations can utilize this information to aid the integration of immigrants into society. To the knowledge of the researcher, there is little research that explores whether job satisfaction can impact the relationship between underemployment and adaptation outcomes. Therefore, the second research question will explore the extent to which this relationship exists:

*Research Question 2: Does job satisfaction moderate the relationship between underemployment and adaptation?*
Acculturation

Although connections between underemployment, adaptation and job satisfaction have been demonstrated, it would be remiss to explore skilled immigrant experiences without considering the extent to which cultural heritage and interactions with the larger society contribute to their relationship to work in a new cultural context. Acculturation, originally defined by Redfield, Linton and Herskovits (1936), is the experience of changing cultural patterns as a result of prolonged contact between different cultural groups. Since then, acculturation has been understood through a framework developed by John Berry (2003), one that illustrates the process of cultural change on both a group and individual level, and conceptualizes the interaction that takes place between immigrants and the larger society.

This conceptualization has been extensively studied amongst immigrant populations; researchers have explored the number of ways and attitudes people use to manage acculturation – known as acculturation orientation. These orientations are based on two conditions: the extent to which migrants maintain their original cultural identity, and the degree that migrants value interaction with the new society or culture (Aycan & Berry, 1996; Berry, 1980; Berry, 1997; Demes & Geeraert, 2014; Sam & Berry, 2010); literature demonstrates that these dimensions are a fundamental component to adjustment and adaptation of migrants (Aycan & Berry, 1996; Berry, Phinney, Sam, & Vedder, 2006; Safdar, Calvez, & Lewis, 2012; Safdar, Lay, & Struthers, 2003; Sam & Berry, 2010).
Employment and acculturation have been intertwined for some time; several studies have shown that employment has played a role in determining life satisfaction and well-being of immigrants (Berry & Hou, 2016; Frank & Hou, 2017). Aycan and Berry (1996) highlighted the immigrant experience as different from native-born citizens for two reasons: immigrants are less likely to find employment that matches their education and qualifications, and that lack of full integration into the labour force can result in psychological problems and adaptation difficulties. Aycan and Berry (1996) studied variables associated with acculturation and the influence of employment on psychological well-being and overall adaptation on Turkish immigrants. They found that a significant portion of highly skilled immigrants had issues integrating into the labour force, and that certain acculturation factors such as length of stay, discrimination and loss of status also played a role in the satisfaction of immigrant lives.

There are a few studies that have linked acculturation orientation to job satisfaction for immigrants. Some have established the connection between the strategies and individuals who are employed in professional occupations (Au et al., 1998; Itzhaki, Ea, Ehrenfeld, & Fitzpatrick, 2013; Lu, Samaratunge, & Härtel, 2012; Valdivia & Flores, 2012). One particular study is a German study that explored the relationship between perceived overqualification, job satisfaction and career satisfaction among Italian and Spanish immigrants (Wassermann, Fujishiro, & Hoppe, 2017). They further investigated whether host national identity was a moderating factor between overqualification, and work related well being (Wassermann et al., 2017). While nothing was found for career satisfaction, the findings from the study indicated that perceived
overqualification was associated with poor job satisfaction, which extended over a
duration of six months. Wassermann, Fujishiro and Hoppe (2017) found a greater
negative impact on job satisfaction for individuals who identified strongly with the host
country compared to those with lower levels of national host identity (Wassermann et
al., 2017). The results from this study further established that host identity is a
moderating influence between underemployment and job satisfaction. Given the
relationship between acculturation orientation and job satisfaction, as well as its
previous connections to adaptation (Aycan & Berry, 1996; Safdar et al., 2003; Ward &
Kennedy, 1994), it is possible that acculturation orientation is associated with the
employment experiences and adaptation outcomes of migrants, particularly within the
Canadian context. Therefore, a final research question will explore such relationships:

Research Question 3: What is the relationship between acculturation orientation,
work experiences, and adaptation outcomes among skilled immigrants?

Method

Summary of Power Analyses

Prior to data collection, an a priori power analysis was conducted using G*Power
(Faul, Erdfelder, Lang, & Buchner, 2009). A power analysis for a hierarchical multiple
regression to establish the relationship between the predictor variables (perceptions of
underemployment, job satisfaction and acculturation orientation), and the outcome
variables (psychological, sociocultural and economic adaptation) was conducted.
Psychological literature suggests a medium effect size of .15 (Faul, Erdfelder, Lang, &
Based on the power analyses conducted, the sample size goal of the thesis was 120 participants.

**Participants**

Study participants were individuals who migrated to Canada through the Economic or Family program initiated by the Canadian government. Participants included in analyses were those who had completed a post secondary degree – a college certificate, university degree or graduate/professional degree. Cultural associations and settlement organizations that offered employment services to newcomers were contacted using flyers (See Appendix A). They assisted in distributing links to the anonymous survey through newsletters, email and social media. Participants who completed the online survey were entered a draw to win a $50 Walmart electronic gift card as an incentive to participate. Approximately 52 people participated in the present study through this method.

A total of 150 participants were also recruited through Amazon’s Mechanical Turk (MTurk). MTurk is an online crowdsourcing website where participants (referred to as workers) can participate in research studies for financial compensation. Workers that completed the online survey received $0.50 for their participation (Hara, Adams, Milland, Savage, Callison-Burch, & Bigham, 2018).

**Response rate and sample size.** Of 200 responses, 13 participants (6.5%) were removed for not completing the survey. Five responses were also removed due to participants who indicated migration via Refugee/Asylum class. For this study, refugees
were excluded due to differences in their arrival to Canada – individuals in other classes voluntarily migrate to the country of choice, rather than fleeing persecution (Hynie, 2018). This forced migration comes with additional challenges in resettlement that extend beyond the scope of this study. Twelve responses were removed for descriptions of migration class that did not fit descriptions or labels of migration classes outlined by the IRCC (N=6) or were not reported at all (N=6). Of the remaining responses, 32 responses (16.0%) were removed for not indicating they had completed and received a post secondary degree. Two participants were removed during the data cleaning process due to being outliers – both participants were excluded for being outliers on both Cook’s distance and Leverage Distance tests. In sum, participants that were included for analysis were individuals from the Economic class (N=80), and Family Class (N=53), a total of 133 participants.

Procedure

The study consisted of an online survey administered to migrants in Canada using the online survey software, Qualtrics, from March 2019 to July 2019. The online survey measured perceptions of underemployment, job satisfaction, and acculturation orientation, in addition to psychological, sociocultural, and economic adaptation outcomes. After consent, each survey took approximately 20 minutes or less to complete.
Data Collection and Measurement

Demographics. Participants were asked to self report demographic information. Five questions regarding gender, age, their country of origin, visible minority status (i.e. whether they identified as a visible minority), and provincial location were measured. Three questions related to their migration process were reported: the year the individual migrated to Canada, the migration program applied to in order to come to Canada (i.e. Economic, Family, Refugee or Other), and the country participants migrated from. Participants also reported if the country they migrated from was different from their country of origin. For education characteristics, participants were asked to indicate their highest level of education, what country the degree or certificate was earned, and had the option of describing their field of study. Finally, participants reported on employment history. Participants stated their occupation prior to migrating to Canada, and the first job they obtained when they arrived in Canada. Participants were also asked to indicate whether they were currently employed in the same position that they obtained when they arrived in Canada. If there was a change in employment, participants stated their new position (See Appendix B for the full scale).

Work experience. The present study asked participants about the first employment experience of participants when they migrated to Canada; participants reported their job title, job satisfaction and perceived overqualification for their first job. Participants were also asked about their current employment experience by indicating whether their job position had changed over time — if participants indicated ‘yes’, then participants reported their current job title, job satisfaction and perceived
overqualification for their present job. The present study focused on current employment – to establish this, job satisfaction and perceived overqualification scores of participants that changed jobs over time were combined with those who still had their first job.

**Perceived overqualification.** Perceptions of underemployment for both first and current job experiences was determined using the Perceived Overqualification Scale by Johnson and Johnson (2000). The 10-item scale measures perception of underemployment through two sub scales: perceived mismatch, which measures the extent to which individuals are overqualified for their job (4 items; e.g. My formal education over qualifies me for my present job), and perceived no growth, which measures the degree to which individuals can utilize their skills (6 items; e.g. My job provides opportunities to learn new things). Respondents were asked to indicate how they felt about their employment experiences on a Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree) (Johnson & Johnson, 2000). An average score was calculated for both perceived mismatch and perceived no growth scales. In the present study, the Cronbach’s alpha coefficient of the scale for current employment is with the perceived mismatch scale as .78, and perceived no growth as .65. Descriptive analysis indicated that with item 6 from the perceived no-growth scale (‘The day to day content of my job seldom changes’) removed, the reliability for the perceived no-growth scale increased to .72. Therefore, the item was removed. (See Appendix C for the full scale).

**Job satisfaction.** Job satisfaction for both their first and current job experiences was measured with the job satisfaction subscale from the Michigan Organizational Assessment Questionnaire by Cammann, Jenkins, and Nadler (1975). The scale
consists of three items (e.g. All in all, I am satisfied with my job), and respondents were asked to indicate how they felt about first and/or current jobs overall on a 7-point Likert-type scale, ranging from 1 (strongly disagree) to 7 (strongly agree). While characteristics of the job itself has been demonstrated to also be predictors of immigrant job satisfaction (Wang & Jing 2018), a meta-analysis demonstrated that single-item measures of job satisfaction are usually highly correlated with multi-item scales (Wanous, Reichers, & Hudy, 1997). The average score was calculated, with negative questions reverse coded. In the present study, the Cronbach’s alpha coefficient of the combined scale is .80 (See Appendix D for the full scale).

**Acculturation orientation.** Participants’ acculturation orientation was measured using an 8-items scale derived from Demes & Geeraert (2014) Brief Acculturation Orientation Scale. Participants were asked to indicate how important cultural friendships, traditions, characteristics, and actions are to their lives (Demes & Geeraert, 2014). The bidimensional scale asked participants to indicate their level of agreement for four statements (e.g. It is important for me to have [home country] friends) on a 7-point Likert scale, ranging from 1 (strongly disagree) to 7 (strongly agree). The four statements are presented twice, once for their home identity based on country of origin, and again for their host country (Canada). An average score was calculated for home and host identity. In the present study, the Cronbach’s alpha coefficient for the heritage identity scale as .92, and the host identity is .90 (See Appendix E for full scale). The present study opts to measure acculturation orientation using a bidimensional approach,
where heritage orientation and host orientation dimensions are measured separately (Demes & Geeraert, 2014; Dona & Berry, 1994).

**Psychological adaptation.** Psychological adaptation was measured using the 10-item psychological adaptation scale from Demes & Geeraert (2014). Participants were asked to rate statements regarding thoughts and feelings they have experienced during their time in Canada on a 7-point Likert scale, ranging from 1 (strongly disagree) to 7 (strongly agree). An example statement in the scale is “I am excited about being in Canada”. An average score was calculated. The Cronbach’s alpha coefficient for the psychological adaptation scale is .78. (See Appendix F for full scale).

**Sociocultural adaptation.** Sociocultural adaptation, or competency in a new cultural environment, was assessed with the 12-item scale derived from Demes & Geeraert’s (2014) Sociocultural Adaptation Scale. Participants were asked to rate how easy or difficult it was to adapt to different aspects of living in Canada (e.g. values and beliefs, language, climate, etc.) on a 7-point Likert scale, ranging from 1 (extremely difficult) to 7 (extremely easy). An average score was calculated. The Cronbach’s alpha coefficient for the sociocultural adaptation scale is .88. (See Appendix G for full scale).

**Economic adaptation.** Participants completed Aycan & Berry’s (1996) economic adaptation scale, which measures the extent to which they feel financially secure and competent in navigating economic challenges in Canada. The 7-item scale consists of two sections: first, participants were asked to indicate their annual income by selecting one of fifteen income intervals, ranging from less than $12,000, to more than
$90,000. Next, respondents were asked to rate statements regarding their accomplishment in achieving economic goals (1 = 'I am very far from realizing my economic goals' to 5 = 'I am doing much better than I expected I would in financial terms'), and evaluate their economic experiences using a 5-point Likert scale ranging from 1 (almost always) to 5 (never). An example statement in this section is “How often do you feel that you are unable to understand the market demands of Canadian economic life?”. An average score was calculated. The Cronbach’s alpha coefficient for the economic adaptation scale is .78 (See Appendix H for full scale).

## Results

The research questions in the present study were examined using null hypothesis statistical testing (NHST). To understand the magnitude of the findings, effect sizes and confidence intervals were calculated and included in analysis. While significance testing has become a measure of value for many psychological studies, there has been a more recent call for re-evaluation of the emphasis placed on p-values (Lambdin, 2012). As such, results of the present study will place more importance on the interpretation of effect sizes and confidence intervals calculated.

### Comparison between Migration Programs

First, to assess any differences between migration programs, a multivariate analysis of variance was conducted for the adaptation outcomes, as well as the key predictor variables: perceived mismatch, perceived no growth, and job satisfaction (See Table 1). The results indicated that there was no difference between immigrants from
economic and family programs in terms of perception of no growth at work \((F(1, 131) = 0.03, p > 0.05)\), perceived mismatch \((F(1, 131) = 1.47, p > 0.05)\), or job satisfaction \((F(1, 131) = 0.20, p > 0.05)\). Results also indicated that there were no significant differences between immigrants from Economic and Family programs on economic \((F(1, 131) = 0.03, p > 0.05)\), sociocultural \((F(1, 131) = 2.84, p > 0.05)\) and psychological \((F(1, 131) = 0.02, p > 0.05)\) adaptation outcomes.

**Descriptive Statistics and Correlations**

Table 2 presents descriptive statistics for the survey participants. Most participants were male \((N = 54.9\%)\), with an average age of 33.7 \((± 9.94)\). Participants frequently reported migrating from Asia \((N = 64, 48.1\%)\), followed by Europe \((N = 21, 15.8\%)\) and South America \((N = 18, 13.5\%)\). A majority of participants self-identified as a visible minority \((N = 85, 63.9\%)\). Approximately 60.2\% of the participants migrated to Canada via Economic program \((N = 80)\), and others migrating through the Family program \((N = 53, 39.8\%)\). Most participants reported living in Ontario \((N = 74, 55.6\%)\), followed by British Columbia \((N = 22, 16.5\%)\). For length of residence in Canada, 41 participants reported living in Canada for less than 5 years \((31.1\%)\), 33 participants who have lived in Canada for 5-10 years \((25.0\%)\), and 59 participants have lived in Canada for more than 10 years \((43.9\%)\). The average number of years lived in Canada was 10.36. Several participants reported Canada as the country they earned their highest degree \((N = 51, 38.3\%)\), with others earned outside of Canada \((N = 69, 51.9\%)\). Participants predominately reported completing a university degree \((N = 77, 57.0\%)\), followed by a graduate degree \((N = 43, 31.9\%)\) and a college certificate \((N = 15, 11.1\%)\).
Most participants (N=89, 66.9%) also reported having a job or position that was different from their first job since their arrival to Canada.

A correlation analysis was conducted to explore the relationships between proposed demographic variables (gender, visible minority status, and number of years in Canada), acculturation orientation (heritage and host orientation), predictors for immigrant employment experiences (perceived overqualification and job satisfaction) and the adaptation outcomes (economic, sociocultural and psychological). Table 3 contains means, standard deviations and intercorrelations for the variables.

The first hypothesis stated that perceived overqualification was negatively related to adaptation outcomes. Table 3 shows that although the relationship between perceived mismatch and economic adaptation was not significant ($r = -0.13, p > 0.05$), there was a significant, negative relationship between perceived no growth and economic adaptation ($r = -0.31, p < 0.01$). Therefore, hypothesis 1a was partially supported. There was also a positive relationship between job satisfaction and economic adaptation ($r = 0.43, p < 0.01$). Results also indicated that there were no significant relationships between gender and economic adaptation, ($r = -0.15, p > 0.05$), visible minority status and economic adaptation ($r = 0.11, p > 0.05$), or number of years in Canada and economic adaptation ($r = 0.15, p > 0.05$). There were also no significant relationships between heritage orientation and economic adaptation ($r = 0.08, p > 0.05$), or host orientation and economic adaptation ($r = 0.13, p > 0.05$).
Correlations in Table 3 also determined that there were no significant relationships between the proposed demographic variables and sociocultural adaptation. Specifically, gender ($r = 0.06, p > 0.05$), visible minority status ($r = 0.10, p > 0.05$), and number of years in Canada ($r = 0.08, p > 0.05$) were related to the adaptation outcome. Results also indicated that there was no relationship between heritage orientation and sociocultural adaptation ($r = -0.03, p > 0.05$), but, there was a positive relationship between host orientation and sociocultural adaptation ($r = 0.50, p < 0.01$) – the more migrants valued interactions with the larger society, the more they were able to adapt to their new cultural context. For employment experiences, there was no significant relationship between perceived mismatch and sociocultural adaptation ($r = -0.00, p > 0.05$). However, there was a negative relationship for perceived no growth ($r = -0.28, p < 0.01$) and a positive relationship for job satisfaction ($r = 0.36, p < 0.05$) on sociocultural adaptation. Similar to hypothesis 1a, hypothesis 1b was partially supported.

Finally, Table 3 results indicated that there was a significant and negative relationship between gender and psychological adaptation ($r = -0.19, p < 0.05$), but no relationship for visible minority status ($r = 0.10$) or number of years in Canada ($r = 0.08$). Although there was also no significant relationship between host orientation and psychological adaptation ($r= 0.15, p > 0.05$), a significant and negative relationship between heritage orientation and psychological adaptation was established ($r = -0.47, p < 0.01$). Similar to economic and sociocultural adaptation outcomes, there was no significant relationship between perceived mismatch and psychological adaptation ($r = -
0.16); rather, there was a negative relationship for perceived no growth \( r = -0.34, p < 0.01 \), and a positive relationship for job satisfaction \( r = 0.43, p < 0.01 \). These results also find partial support for hypothesis 1c.

**Hierarchical Regression Analysis**

Based on the correlation matrix, variables were assessed in order to ensure best model fit. Of the proposed demographic variables, only gender was included, due to its relationship with one of the adaptation outcomes. Similarly, for measures of underemployment, specifically perceived overqualification, perceived mismatch was not significantly related to the adaptation outcomes. Therefore, perceived mismatch was excluded from the model, leaving perceived no growth as the main underemployment effect examined. As such, a four-step hierarchical regression was conducted (See Table 4). This method was used to examine whether demographic characteristics (i.e. gender), acculturation orientation (heritage and host orientation), employment experiences (perceived no growth and job satisfaction) and moderation of job satisfaction predicted the three adaptation outcomes (economic, sociocultural and psychological). In the first block, demographic characteristics were entered, followed by acculturation orientation effects in the second block and employment experiences in the third. Finally, two-way interaction effects between perceived no growth and job satisfaction were assessed in the fourth block.

**Economic adaptation.** Table 4 depicts the regression model on economic adaptation. Results indicated that the demographic variables explained 2.4% of the variance in the overall model and did not significantly contribute to economic adaptation
(\Delta R^2 = 0.02), F(1, 131) = 3.20, p > 0.05. In the first level, the main effect of gender (\beta = -0.15, p > 0.05) did not contribute to economic adaptation. In the second block, main effects of acculturation orientation did not significantly contribute to the overall model, accounting for approximately 3.0% of variance (\Delta R^2 = 0.03), F(2, 129) = 1.87, p > 0.05); neither heritage orientation (\beta = -0.09, p > 0.05), nor host orientation (\beta = 0.16, p > 0.05), significantly contribute to economic adaptation. The third block shows that employment experiences significantly contributes to the overall model, accounting for approximately 15% of variance, (\Delta R^2 = 0.15), F(2, 127) = 11.92, p > 0.05). Specifically, the main effect of perceived no growth (\beta = -0.09, p > 0.05) did not contribute to economic adaptation. However, job satisfaction had a positive main effect (\beta = 0.36, p < 0.05), indicating that the higher the participant’s satisfaction with their job, the higher their ability to handle the needs and demands of the Canadian economic market.

Finally, the two-way interaction term between perceived no growth and job satisfaction (\beta = 0.07) did not significantly contribute to variance in the overall model, (\Delta R^2 = 0.00), F(1,126) = 0.60, p > 0.05. This suggests that job satisfaction does not moderate the relationship between perceived no growth and economic adaptation.

**Sociocultural adaptation.** In the regression model for sociocultural adaptation (See Table 3), the first level of demographics did not contribute to the overall model, \( F(1, 131) = 0.50, p > 0.05. \) Specifically, there were no significant main effects for gender (\beta = 0.08). In the second level, the addition of acculturation orientation did significantly contribute to the overall model (\Delta R^2 = 0.27), \( F(2, 129) = 23.79, p < 0.01. \) In particular, approximately 27% of the variance in this model is attributed to attitudes on interacting
with the larger society—the main effect of host orientation (β = 0.53) contributed to sociocultural adaptation, whereas heritage orientation (β = -0.14) did not. The third level, indicated that work experiences also significantly contribute to sociocultural adaptation, accounting for 6% of the variance in the model, (ΔR² = 0.06), F(2, 127) = 5.72, p < 0.01. Specifically, there was a positive main effect of job satisfaction (β = 0.39) on sociocultural adaptation—the more participants were satisfied with their job, the more they were able to handle everyday situations in their new cultural setting. On the other hand, perceived no growth did not have a main effect on sociocultural adaptation (b = 0.07). Lastly, the two way interaction term did not significantly contribute to sociocultural adaptation, (ΔR² = 0.02), F(1, 126) = 2.89, p > 0.05, suggesting that job satisfaction did not moderate the relationship between perceived no growth and sociocultural adaptation.

**Psychological adaptation.** Finally, the regression model for psychological adaptation, demographics did significantly contribute to the overall model, R² = 0.04, F(1, 131) = 4.98, p < 0.05. In this level, there was a significant and negative main effect for gender (β = -0.19, p < 0.05) on psychological adaptation, meaning that women experienced lower psychological adaptation compared to men. In the second level, acculturation orientation contributed an additional 25.4% of variance to the overall model (ΔR² = 0.25), F(2, 129) = 23.15, p < 0.05. Both heritage orientation (β = -0.50) and host orientation (β = 0.25) contributed to psychological adaptation. Results from the third level suggest that work experiences significantly contributed to psychological adaptation, (ΔR² = 0.15), F(2,127) = 16.54, p < 0.01. While there was no main effect of
perceived no growth ($\beta = -0.15$) on psychological adaptation, job satisfaction did contribute to psychological adaptation ($\beta = 0.30$). Finally, the two way interaction between perceived no growth and job satisfaction ($\beta = -0.02, p > 0.05$), did not significantly contribute to the overall model ($\Delta R^2 = 0.00), F(1,126) = 0.12, p > 0.05$, which suggests that job satisfaction does not moderate the relationship between perceived no growth and psychological adaptation.

**Post Hoc Mediation Analysis**

To better understand the role of job satisfaction in the relationship between perceived no growth and adaptation, a post hoc mediation analysis was conducted using PROCESS 3.3 by Andrew Hayes. Regression analysis was used to investigate the exploration of job satisfaction mediating the effect of perceived overqualification on economic adaptation. Results from Figure 1 indicate that perceived no growth was a significant predictor of job satisfaction, $b = -0.61$, 95% CI [-1.72, -1.10], $p < 0.01$, and that job satisfaction does significantly predict economic adaptation $b= 0.38$, 95% CI [0.11, 0.33], $t = 4.60, p < 0.05$. These results support the mediational hypothesis. Perceived no growth was no longer a significant predictor after controlling for the mediator, job satisfaction, $b = 0.08$, 95% CI[-0.18, 0.34], $t = 0.58, p > 0.05$, consistent with full mediation. Approximately 18.5% of the variance in economic adaptation was accounted for by the predictors ($R^2 = 0.19$). The indirect effect was tested using a bootstrap estimation approach. These results indicated there was a significant indirect effect of perceived no growth on economic adaptation through job satisfaction, $b = -0.25$, 95% BCa CI [-0.56, 0-0.20].
Figure 2 presents job satisfaction mediation analysis for sociocultural adaptation. Results indicated that perceived no growth significantly predicted job satisfaction, \( b = -0.61, 95\% \text{ CI } [-1.40, -0.89], p < 0.05 \), and that job satisfaction does significantly predict sociocultural adaptation, \( b = -0.12, 95\% \text{ CI } [0.06, 0.35], t = 2.86, p < 0.05 \). Consistent with full mediation, perceived no growth was no longer a significant predictor after controlling for job satisfaction, \( b = -0.10, 95\% \text{ CI } [0.06, 0.35], t = -0.93, p > 0.05 \). Approximately 13.2\% of the variance was accounted for by the predictors \( R^2 = 0.13 \).

The indirect effect was tested using a bootstrap estimation approach. These results indicated that there was a significant indirect effect of perceived no growth on sociocultural adaptation through job satisfaction, \( b = -0.23, 95\% \text{ BCa CI } [-0.42, -0.03] \).

Similarly, Figure 3 presents mediation analysis for psychological adaptation. Results of the analysis indicated that perceived no growth significantly predicted job satisfaction, \( b = -0.61, 95\% \text{ CI } [-1.40, -0.89], p < 0.05 \) and that job satisfaction also significantly predicted psychological adaptation, \( b = 0.30, 95\% \text{ CI } [0.12, 0.39] \).

Perceived no growth was no longer a significant predictor after controlling for the mediator, job satisfaction, \( b = -0.14, 95\% \text{ CI } [-0.42, 0.18], p > 0.05 \), consistent with full mediation. Approximately 18.9\% of variance in psychological adaptation was accounted for with the two predictors \( R^2 = 0.19 \). The indirect effect was tested using a bootstrap estimation approach. These results indicated that there was a significant indirect effect of no growth on psychological adaptation through job satisfaction, \( b = -0.27, 95 \text{ BCa CI } [-0.54, -0.19] \).
Discussion

The present study investigated the relationships between underemployment, job satisfaction and three main outcomes: economic, sociocultural and psychological adaptation, focusing primarily on the effects from these relationships as an informative guide, as opposed to significance testing (Lambdin, 2012). With respect to the first research question, the hypothesis was supported—findings from this study demonstrated that there was a negative relationship between perceived overqualification and the adaptation outcomes. However, correlation analysis determined that the lack of opportunity to utilize one’s skills (no-growth), rather than perceived mismatch, is the main factor of underemployment when considering the relationship between underemployment and adaptation outcomes. This is consistent with what is seen in Johnson and Johnson (2000), who also found that perceived no growth was better associated with work experiences, compared to perceived mismatch.

Next, exploratory findings suggest that job satisfaction does not moderate the relationship between underemployment and adaptation outcomes – rather, job satisfaction mediates the relationship between underemployment and economic, sociocultural and psychological adaptation outcomes. Finally exploratory analyses established a relationship between acculturation orientation, perceived overqualification and job satisfaction. While heritage orientation did not have connections to perceived mismatch, perceived no growth or job satisfaction, host orientation was negatively related to perceived no growth, while positively associated with job satisfaction.
Perceived No Growth and Adaptation Outcomes

The present study expands on existing knowledge by using person job fit theory to explore the relationship between perceived overqualification (measured as no growth) and adaptation outcomes. With respect to the first hypothesis, we find that perceived no growth had a medium, negative association with economic adaptation. The implication is that the more immigrants perceived they were unable to utilize their skills, the less felt they were able to adequately navigate the labour market in Canada. The establishment of this relationship between underemployment and economic adaptation validated an earlier finding by Aycan and Berry (1996), who similarly found a negative relationship between underemployment and economic adaptation. Like Aycan and Berry (1996), this finding can impact immigrant sense of accomplishment, which can further contribute to immigrant well-being.

It was hypothesized that a negative relationship between perceived overqualification and sociocultural adaptation would occur. The motivation to investigate this relationship in this study stemmed from initial assumptions that underemployment typically comes from working jobs lower than the immigrant’s qualification, resulting in working under precarious and temporary conditions (Creese & Wiebe, 2009; Tastsoglou & Preston, 2005). Findings from the present study showed that this may not always be the case – perceived no growth was the main factor in this relationship, meaning that the more participants felt they were unable to utilize their skills at their job, the less they felt they behaviourally adjusted to their new cultural context. This medium association may suggest that while migrants are in a continuous learning mode when it comes to
adjusting to their new cultural contexts (Ward & Kennedy, 1999; Wilson, Ward, Fetvadjiev, & Bethel, 2017), work often provides a meaningful avenue in which migrants can learn and gain skills to adequately navigate interactions with their new society. Consequently, employment that does not afford migrants the opportunity to use what they know can hinder the capacity to adapt to their new cultural context. This finding is consistent with previous research — for example, Yijala and Luoma (2019) also suggest that employment often serves the purpose of establishing social networks and accumulation of cultural capital, both of which are vital to the adaptation process.

Results from the present study suggest that perceived no growth negatively impacts psychological adaptation. Specifically, the more migrants believed they were overqualified for their positions, the less positive their thoughts and feelings towards their lives in Canada. This particular finding is in agreement with literature regarding immigrant employment experiences, particularly on underemployment — research in this area also suggest that migrants are more likely to experience lower levels of life satisfaction and general well-being (Aycan & Berry, 1996; Chen, Smith, & Mustard, 2010; Frank & Hou, 2017; Subedi & Rosenberg, 2016). Theoretically speaking, perceived no growth can be understood to be a vital aspect of person-job fit for migrants — the inability to use their skills to their fullest capabilities can be a stressful experience, which can, in turn, lower professional status and self-esteem (Aycan & Berry, 1996, Neto, Wilks, Cristina & Fonseca, 2018).

Role of gender in psychological adaptation. Another interesting finding from the present study was the relation between gender and psychological adaptation.
Specifically, women experienced lower levels of psychological adaptation compared to men. Although gender differences had a small effect on psychological adaptation, this finding is consistent with research on women’s experiences of immigration to Canada—Rezazadeh & Hoover’s 2018 literature review on the topic suggest that cultural transitions, negotiation of gender roles, employment experiences, housing experiences, intimate partner violence, and access to medical care are all factors that contribute women’s adjustment and well-being (Rezazadeh & Hoover, 2018).

**Role of Job Satisfaction**

Exploratory findings from the present study demonstrated that job satisfaction does indeed play a significant role in the relationship between perceived no growth and adaptation outcomes—the confidence intervals for the indirect effect of job satisfaction suggests that job satisfaction is an underlying mechanism that explains the relationship between perceived no growth and adaptation outcomes (economic, sociocultural and psychological). Given the established relationship between perceived no growth and job satisfaction (Johnson & Johnson, 2000), the present study indicates that theoretically, work experiences — specifically job satisfaction — should be taken into consideration when exploring adaptation and adjustment of migrants — as it has been previously established, work not only provides income, but also sense of identity and status (Aycan & Berry, 1996). By exploring job satisfaction and methods to ensure migrants are satisfied with the work they do in their new country, perceived inability to utilize their skills can potentially be mitigated amongst skilled immigrants.
Acculturation Orientation, Work Experience, and Adaptation Outcomes

The present study also explored the relationship between acculturation orientation – how much migrants value the customs and traditions of their own heritage as well as those of the larger society—work experiences and adaptation outcomes.

This study has demonstrated that heritage orientation had no main effect on sociocultural adaptation and economic adaptation, nor did it have a strong association with economic adaptation, perceived no growth and job satisfaction. The lack of relationship between heritage orientation and sociocultural adaptation is consistent with Ward and Kennedy (1994), who suggest maintenance of heritage cultural traditions and values may have a weaker association with outcomes related to the new cultural context. The lack of relationship between heritage orientation and economic adaptation, job satisfaction and perceived no growth makes intuitive sense as such orientation has little relevance on the economic adaptation in the new cultural context.

The results also indicated that heritage orientation was negatively associated with psychological adaptation. This finding contradicts some of the literature in the field, particularly on acculturation attitudes that emphasizes the benefits of maintaining both heritage and culture of the larger society (Berry 1997; Safdar & van de Vijver, 2019; Sam & Berry, 2010). The finding that heritage orientation having a large, negative effect on psychological adaptation, is intriguing and I believe calls for further investigation.
Additionally, host orientation also had a small, positive association with job satisfaction. Specifically, the more migrants valued interaction with the larger society, the more satisfied they were with their job. This finding is consistent with previous research that also indicated a positive relationship between host culture orientation and job satisfaction (Neto & Wilks, 2018). Establishing this relationship amongst migrant populations suggests that prioritization of immigrant social competence within their new cultural context – being skilled in effectively interacting with larger society can be of benefit to migrants, especially for their employment outcomes (Guerrero & Rothstein, 2016; Turchik Hakak et al., 2010; Ward & Kennedy, 1994). Perhaps, this finding might also be indicative of the level of importance placed on Canadian work experience and re-education. In this regard, Canadian work experience and re-education are barriers that Canadian employers use to discriminate against immigrants, but studies have shown that those who are able to acquire such experiences fare much better than those without (McKee-Harvey & Ryan, 2011; TRIEC, 2018). From this perspective, a better understanding of migrant attitudes towards the larger society could help further explain their relationship with work (Wasserman & Hoppe, 2017).

**Practical Implications**

The negative relationships between perceived no growth and adaptation outcomes has implications for immigrant resettlement and retention—research has shown that migrants who tend to leave their initial destination do so during the first several years of resettlement (Sapeha, 2015). From this perspective, focusing on adequately supporting human capital of migrants can be a major benefit for both skilled
immigrants and the government that prioritizes them. Therefore, to improve impact of perceived no growth on adaptation, professional growth should be encouraged. The present study suggests that skilled immigrants need to be afforded the opportunity to utilize their skills on the job. Given that this relationship is mediated by job satisfaction, there have been suggestions as to how immigrant skills could be better utilized through mentoring, professional language training, and supporting immigrant women (TRIEC, 2018), but drawing from current organizational literature on job design (Hackman & Oldham, 1976; Oldham & Hackman, 2010), could be helpful in making work experiences for skilled immigrants more meaningful, and encourage professional growth.

One particular theory, known as the Job Characteristics Theory (JCT; Hackman & Oldham, 1976) suggests that organizations and supervisors can use five job characteristics—skill variety (the amount of variety a job has in relation to different activities and using various skills and talents of an individual), task significance (the extent to which a job has an effect on other people, be it in the organization or the outside world), task identity (working on clearly defined activities/projects from start to finish), autonomy (how much freedom an individual has to direct and carry out their job), and job based feedback (how much the job activities provide sufficient information about the effectiveness of an individual's performance) in order to increase the probability that individuals will not only find the work meaningful, but also experience a sense of responsibility for work outcomes and have confidence in the results of their work contributing to the organization in question (Oldham & Hackman, 2010). Several studies
have shown that focusing on these job characteristics can be beneficial for those who value chances to grow and learn at their jobs, and also increase job satisfaction over time (Itzhaki, Ea, Ehrenfeld, & Fitzpatrick, 2013; Ko, Frey, Osteen, & Ahn, 2015; Magee & Umamaheswar, 2011; Oldham & Hackman, 2010).

Another aspect of job design that should be explored is job crafting, or the individual’s own ability to restructure their job in a way that increase job satisfaction (Berg, Dutton, & Wrzesniewski, 2008). Job crafting highlights factors that encourages employees themselves to finding meaning in their work, typically by setting boundaries in the number and types of tasks they perform, changing their relationships with others in the job setting, or shifting their perceptions of their designated tasks (Berg, et al., 2008). With assistance from organizations and supervisors within these organizations, it is possible that cultivating an environment in which migrants can job craft can reduce the lack of growth opportunities migrants experience. In turn, this could potentially increase economic, sociocultural and psychological adaptation outcomes.

**Limitations and Future Directions**

However, the current study does pose a few limitations. The present study only offers a cross sectional look into immigrant employment experiences and its connection to adaptation. Research in this area of underemployment have called for more longitudinal work, to measure the influence of factors such as job satisfaction over time (Wassermann, Fujishiro, & Hoppe, 2017). Despite the benefits of a methodology that can be used on a wide sample of participants, the study does not offer further exploration into immigrant employment experiences in different provinces; further
research would also benefit from investigating skilled immigrant employment experiences from a rural/urban perspective, to better understand how living conditions in both settings could benefit and/or hinder adaptation.

Conclusion

The findings supported and expanded the existing knowledge of the links between underemployment of skilled immigrants and adaptation outcomes. Contrary to their expectations, skilled immigrants face difficulty in landing appropriate jobs that match their professional backgrounds and experiences. The consequences of underemployment have been studied in a variety of ways – the resulting stressful life due to lack of adequate employment has been associated with physical and mental health problems (Chen, Smith, & Mustard 2010; Subedi & Rosenberg, 2016), differences in social status of migrants and Canadian-born populations in terms of self esteem (Grant & Nadin, 2007) and health risk (Friedland & Price 2003). Yet other studies have addressed the relationship between professional immigrants, underemployment status and their children emotional health and behavioural patterns (Jensen & Slack, 2003). However, little has been said about adaptation outcomes. By exploring this relationship, the study found that there is a relationship between underemployment (specifically, perceived no growth) and adaptation outcomes—job satisfaction had a mediating role in this relationship. The implications of this finding are that these relationships could be enhanced by providing work experiences that cultivate meaningful and challenging opportunities for migrants to utilize their skills. With that being said, work experiences and job satisfaction is a multifaceted and complex
system—one that needs engagement on an individual, supervisory and organizational level in order to be effective. More research understanding how job design and job crafting can impact skilled immigrant adaptation experiences is recommended. In sum, there is an opportunity to use the insight provided by this study to emphasize and develop appropriate policies to address the issue of skilled immigrants fully integrating into Canadian society.
REFERENCES


https://doi.org/10.1016/j.wsif.2004.06.004


https://doi.org/10.1007/s11205-018-1849-8


Oldham, G. R., & Hackman, J. R. (2010). Not what it was and not what it will be: The future of job design research,*Journal of organizational behavior, 31*(2-3), 463–479.

https://doi.org/10.1002/job


https://doi.org/10.1080/13557858.2016.1180347


Statistics Canada. Table 14-10-0087-01 Labour force characteristics of immigrants by educational attainment, annual. doi: https://doi.org/10.25318/1410008701-eng


Table 1

*Results of ANOVA for Mean Job Satisfaction, Perceived Overqualification, Acculturation Orientation, and Adaptation Between Family and Economic Programs.*

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>Sum of Squares</th>
<th>df</th>
<th>F</th>
<th>$\eta^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived Mismatch</td>
<td>3.48</td>
<td>0.92</td>
<td>1.25</td>
<td>1, 133</td>
<td>1.47</td>
<td>0.01</td>
</tr>
<tr>
<td>Perceived No Growth</td>
<td>2.45</td>
<td>0.76</td>
<td>0.04</td>
<td>1, 133</td>
<td>0.03</td>
<td>0.00</td>
</tr>
<tr>
<td>Job Satisfaction</td>
<td>5.09</td>
<td>1.42</td>
<td>0.04</td>
<td>1, 133</td>
<td>0.02</td>
<td>0.00</td>
</tr>
<tr>
<td>Economic Adaptation</td>
<td>3.24</td>
<td>0.81</td>
<td>0.02</td>
<td>1, 133</td>
<td>0.03</td>
<td>0.00</td>
</tr>
<tr>
<td>Sociocultural Adaptation</td>
<td>5.28</td>
<td>0.98</td>
<td>2.69</td>
<td>1, 133</td>
<td>2.84</td>
<td>0.02</td>
</tr>
<tr>
<td>Psychological Adaptation</td>
<td>4.53</td>
<td>0.94</td>
<td>0.01</td>
<td>1, 133</td>
<td>0.03</td>
<td>0.00</td>
</tr>
</tbody>
</table>

*Note.* *p < 0.05
Table 2

Descriptive Statistics for Survey Participants.

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>73</td>
<td>54.9</td>
</tr>
<tr>
<td>Female</td>
<td>60</td>
<td>45.1</td>
</tr>
<tr>
<td>Continent</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asia</td>
<td>64</td>
<td>48.1</td>
</tr>
<tr>
<td>Africa</td>
<td>13</td>
<td>9.8</td>
</tr>
<tr>
<td>North America</td>
<td>14</td>
<td>10.5</td>
</tr>
<tr>
<td>South America</td>
<td>18</td>
<td>13.5</td>
</tr>
<tr>
<td>Europe</td>
<td>21</td>
<td>15.8</td>
</tr>
<tr>
<td>Australia</td>
<td>2</td>
<td>1.5</td>
</tr>
<tr>
<td>Province</td>
<td></td>
<td></td>
</tr>
<tr>
<td>British Columbia</td>
<td>22</td>
<td>16.5</td>
</tr>
<tr>
<td>Prairies</td>
<td>21</td>
<td>15.8</td>
</tr>
<tr>
<td>Ontario</td>
<td>74</td>
<td>55.6</td>
</tr>
<tr>
<td>Quebec</td>
<td>11</td>
<td>8.3</td>
</tr>
<tr>
<td>Atlantic Provinces</td>
<td>6</td>
<td>4.5</td>
</tr>
<tr>
<td>Years in Canada</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 5</td>
<td>41</td>
<td>31.1</td>
</tr>
<tr>
<td>5-10 years</td>
<td>33</td>
<td>25.0</td>
</tr>
<tr>
<td>More than 10</td>
<td>59</td>
<td>43.9</td>
</tr>
<tr>
<td>Visible Minority</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>85</td>
<td>63.9</td>
</tr>
<tr>
<td>No</td>
<td>48</td>
<td>36.1</td>
</tr>
<tr>
<td>Migration Class</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Economic Program</td>
<td>80</td>
<td>60.2</td>
</tr>
<tr>
<td>Family Program</td>
<td>53</td>
<td>39.8</td>
</tr>
<tr>
<td>Country Highest Degree Earned</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Canada</td>
<td>51</td>
<td>38.3</td>
</tr>
<tr>
<td>Outside Canada</td>
<td>69</td>
<td>51.9</td>
</tr>
<tr>
<td>Level of Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Graduate Degree (MA, PhD, MD)</td>
<td>43</td>
<td>32.3</td>
</tr>
<tr>
<td>University Degree</td>
<td>75</td>
<td>56.4</td>
</tr>
<tr>
<td>College Certificate</td>
<td>15</td>
<td>11.3</td>
</tr>
</tbody>
</table>

Note. Prairies = Alberta, Manitoba and Saskatchewan; Atlantic Provinces = Newfoundland, Prince Edward Island and Nova Scotia
Table 3

Relationships between Acculturation Orientation, Work Experiences, and Adaptation Outcomes.

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Gender</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. VM Status</td>
<td>0.01</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Years in Canada</td>
<td>-0.06</td>
<td>0.16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Heritage Orientation</td>
<td>0.20*</td>
<td>0.14</td>
<td>0.07</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Host Orientation</td>
<td>0.08</td>
<td>0.06</td>
<td>0.08</td>
<td>0.20*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Perceived Mismatch</td>
<td>0.11</td>
<td></td>
<td>0.03</td>
<td>0.05</td>
<td>0.02</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Perceived No Growth</td>
<td>0.12</td>
<td></td>
<td>-0.09</td>
<td>-0.06</td>
<td>-0.22*</td>
<td>0.25**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Job Satisfaction</td>
<td>-0.15</td>
<td>0.10</td>
<td>0.19*</td>
<td>-0.00</td>
<td>0.25**</td>
<td>-0.41**</td>
<td>-0.61**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Economic Adaptation</td>
<td>-0.15</td>
<td>0.11</td>
<td>0.15</td>
<td>-0.08</td>
<td>0.13</td>
<td>-0.13</td>
<td>-0.31**</td>
<td>0.43**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Sociocultural Adaptation</td>
<td>0.06</td>
<td>0.07</td>
<td>0.15</td>
<td>-0.03</td>
<td>0.50**</td>
<td>-0.00</td>
<td>-0.28**</td>
<td>0.36**</td>
<td>0.30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Psychological Adaptation</td>
<td>-</td>
<td>0.10</td>
<td>0.08</td>
<td>-0.47**</td>
<td>0.15</td>
<td>-0.16</td>
<td>-0.34**</td>
<td>0.43**</td>
<td>0.42</td>
<td>0.52**</td>
<td></td>
</tr>
</tbody>
</table>

Mean: 0.45 0.36 10.36 4.73 5.80 3.48 2.45 5.09 3.24 5.28 4.53
SD: 0.50 0.48 9.49 1.56 1.16 0.92 0.76 1.42 0.81 0.98 0.94

Note. VM Status = Visible Minority Status, * = p<0.05, ** = p<0.01
Table 4

Results of Modelling Economic, Sociocultural and Psychological Adaptation as a function of Perceived Overqualification.

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Economic Adaptation</th>
<th>Sociocultural Adaptation</th>
<th>Psyc. Adaptation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$\Delta R^2$</td>
<td>$\beta$</td>
<td>$\beta$ 95% [LL,UL]</td>
</tr>
<tr>
<td><strong>Step 1</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>0.02</td>
<td>0.04</td>
<td>[-0.53, 0.27]</td>
</tr>
<tr>
<td></td>
<td>-0.15</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Step 2</strong></td>
<td>0.03</td>
<td>0.27**</td>
<td></td>
</tr>
<tr>
<td>Heritage Orientation</td>
<td>-0.09</td>
<td></td>
<td>[-0.14, 0.05]</td>
</tr>
<tr>
<td>Host Orientation</td>
<td>0.16</td>
<td></td>
<td>[-0.01, 0.23]</td>
</tr>
<tr>
<td><strong>Step 3</strong></td>
<td>0.15**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PNG</td>
<td>-0.08</td>
<td></td>
<td>[-0.29, 0.13]</td>
</tr>
<tr>
<td>JS</td>
<td>0.36*</td>
<td></td>
<td>[0.09, 0.32]</td>
</tr>
<tr>
<td><strong>Step 4</strong></td>
<td>0.00</td>
<td>0.13</td>
<td>[-0.02, 0.22]</td>
</tr>
<tr>
<td>PNG*JS</td>
<td>0.02</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total $R^2$</td>
<td>0.22</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>132</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note.* PNG = Perceived No Growth, JS = Job Satisfaction, * = p < 0.05, ** = p < 0.01
Figure 1. Regression coefficients for the relationship between perceived no growth and economic adaptation as mediated by job satisfaction.

Figure 2. Regression coefficients for the relationship between perceived no growth and sociocultural adaptation as mediated by job satisfaction.
Figure 3. Regression coefficients for the relationship between perceived no growth and psychological adaptation as mediated by job satisfaction.
APPENDICES

Appendix A: Poster for Recruitment

Are you an Immigrant that is currently employed?

The Centre for Cross-Cultural Research at the University of Guelph are inviting individuals who:

- Migrated via Economic Class (i.e. Skilled Worker Program, Business immigrants, Provincial/territorial nominees, live-in caregivers)
- Have completed and received a post-secondary degree/certificate.

To participate:
1. Go to [https://bit.ly/3VuoRNZ](https://bit.ly/3VuoRNZ) or use this:
2. Complete a 15-20 minute survey about your employment experiences.
3. Enter the raffle to win a $50 gift card to Walmart*

*Please note that while the researcher has the ability to link the identity of the participant to the survey data, they will choose not to do so.

If there are any questions, please contact oeguakun@uoguelph.ca
Appendix B: Demographics

1. Gender

2. Age

3. Country of Origin

4. Education (highest degree earned)

5. What Country was the highest degree earned

6. Present Occupation in Canada

7. Previous Occupation in Country of Origin

8. Do you Identify as a visible minority?

9. What Year did you migrate to Canada?

10. What class did you apply to for immigration? (Economic, Family, Refugee)
Appendix C: Johnson and Johnson (2000) Perceived Overqualification Scale

1 = strongly disagree 2 = disagree 3 = neutral 4 = agree 5 = strongly agree

1. My formal education over qualifies me for my present job

2. My talents are not fully utilized on my job

3. My work experience is more than necessary to do my present job

4. Based on my skills, I am overqualified for the job I hold

5. My job frequently provides me with new challenges

6. The day-to-day content of my job seldom changes

7. My job has a lot of potential for growth and change

8. Continuing education related to my job has improved my job performance

9. I have mastered nearly every aspect of my job

10. My job provides opportunities to learn new things
Appendix D: Cammann, Jenkins & Nadler (1975) Michigan Organizational Assessment Questionnaire Job Satisfaction Subscale (MAOQ-JSS)

1 = strongly disagree 2 = disagree 3 = slightly disagree 4 = neutral 5 = slightly agree 6 = agree 7 = strongly agree

1. All in all, I am satisfied with my job.
2. In general, I like working here
3. In general, I don't like my job
Appendix E: Demes & Geeraert (2014) Brief Acculturation Orientation Scale

1 = strongly disagree   2 = disagree   3 = somewhat disagree   4 = not sure   5 = somewhat agree   6 = agree   7 = strongly agree

It is important for me to:

1. Have [home country] friends
2. Take part in [home country] traditions
3. Hold on to my [home country] characteristics
4. Do things the way [home country] people do
5. Have [host country] friends
6. Take part in [host country] traditions
7. Develop my [host country] characteristics
8. Do things the way [host country] people do
Appendix F: Demes & Geeraert (2014) Psychological Adaptation Scale

1 = strongly disagree   2 = disagree   3 = somewhat disagree   4 = not sure   5 = somewhat agree   6 = agree   7 = strongly agree

It is important for me to:

1. Have [home country] friends

2. Take part in [home country] traditions

3. Hold on to my [home country] characteristics

4. Do things the way [home country] people do

5. Have [host country] friends

6. Take part in [host country] traditions

7. Develop my [host country] characteristics

8. Do things the way [host country] people do
Appendix F: Demes & Geeraert (2014) Psychological Adaptation Scale

1 = strongly disagree  2 = disagree  3 = somewhat disagree  4 = not sure  5 = somewhat agree  6 = agree  7 = strongly agree

During the time you have spent in Canada, what emotions/feelings and thoughts do you often experience?

1. Excited about being in Canada
2. Out of place, like you don't fit into Canadian culture
3. A sense of freedom being away from [home country]
4. Sad to be away from [home country]
5. Nervous about how to behave in certain situations
6. Lonely without your [home country] family and friends around you
7. Curious about things that are different in Canada
8. Homesick when you think of [home country]
9. Frustrated by the difficulties adapting to Canada
10. Happy with your day to day life in Canada
Appendix G: Demes & Geeraert (2014) Sociocultural Adaptation Scale

1 = strongly disagree  2 = disagree  3 = somewhat disagree  4 = not sure  5 = somewhat agree  6 = agree  7 = strongly agree

Think about living in Canada. How easy or difficult is it for you to adapt to Canada?

1. climate (temperature, rainfall, humidity)
2. natural environment (plants and animals, pollution, scenery)
3. social environment (size of the community, pace of life, noise)
4. living (hygiene, sleeping practices, how safe you feel)
5. practicalities (getting around, using public transport, shopping)
6. food and eating (what food is eaten, how food is eaten, time of meals)
7. family life (how close family members are, how much time family spend together)
8. social norms (how to behave in public, style of clothes, what people think is funny)
9. values and beliefs (what people think about religion and politics; what people think is right or wrong)
10. people (how friendly people are, how stressed or relaxed people are, attitudes towards foreigners)
11. friends (making friends, amount of social interaction, what people do to have fun and relax)
12. language (learning the language, understanding people, making yourself understood)

1a. Please consider all the sources of your income and check one of the below mentioned annual income alternatives

- less than $12,000
- $12,000 - $18,000
- $18,000 - $24,000
- $24,000 - $30,000
- $30,000 - $36,000
- $36,000 - $42,000
- $42,000 - $48,000
- $48,000 - $54,000
- $54,000 - $60,000
- $60,000 - $66,000
- $66,000 - $72,000
- $72,000 - $78,000
- $78,000 - $84,000
- $84,000 - $90,000
- more than $90,000

1b. How far do you perceive yourself from the economic goal you have intended to reach before coming to Canada?

- I am very far from realizing my economic goals
- I am far from realizing my economic goals
- I have almost met my economic goals
- I am doing slightly better than I anticipated I would in financial terms
- I am doing much better than I anticipated I would in financial terms

1 = Almost always  2 = Often  3 = Sometimes  4 = Rarely  5 = Never

2. Have you ever had regrets about coming to Canada because of the occupational and economic position?

3. Have you ever thought about going back to your home country as a result of your present occupational and economic conditions?

4. When you think of your financial situation, how often do you feel insecure?

5. How often do you feel that you are unable to understand market demands of Canadian economic life?

6. How often do you feel that you are unable to meet market demands of Canadian economic life?
Appendix I: REB Approval

The members of the University of Guelph Research Ethics Board have examined the protocol which describes the participation of the human participants in the above-named research project and considers the procedures, as described by the applicant, to conform to the University's ethical standards and the Tri-Council Policy Statement, 2nd Edition.

The REB requires that researchers:
- Adhere to the protocol as last reviewed and approved by the REB.
- Receive approval from the REB for any modifications before they can be implemented.
- Report any change in the source of funding.
- Report unexpected events or incidental findings to the REB as soon as possible with an indication of how these events affect, in the view of the Principal Investigator, the safety of the participants, and the continuation of the protocol.
- Are responsible for ascertaining and complying with all applicable legal and regulatory requirements with respect to consent and the protection of privacy of participants in the jurisdiction of the research project.

The Principal Investigator must:
- Ensure that the ethical guidelines and approvals of facilities or institutions involved in the research are obtained and filed with the REB prior to the initiation of any research protocols.
- Submit an Annual Renewal to the REB upon completion of the project. If the research is a multi-year project, a status report must be submitted annually prior to the expiry date. Failure to submit an annual status report will lead to your study being suspended and potentially terminated.

The approval for this protocol terminates on the EXPIRY DATE, or the term of your appointment or employment at the University of Guelph whichever comes first.

Signature: [Signature]
Date: July 29, 2019

Stephen P. Lewis
Chair, Research Ethics Board-General
Appendix J: Consent for MTurk

CONSENT TO PARTICIPATE IN RESEARCH

Greetings,

My name is Omorowa Eguakun. I am a master’s student at the University of Guelph in Ontario, Canada. I am working with Dr. Saba Safdar to study the influence of employment experiences on your life in Canada as a skilled immigrant. We are especially curious about how your feelings towards your job, and your relationship with both Canada and the country you migrated from has impacted your adjustment to life in Canada.

I am writing to invite you to participate in this research. We want to see whether skilled immigrants have had the opportunity to use their education and skills to their fullest capabilities. Learning about these experiences will be of use to various organizations and employment agencies for helping others in a similar situation. To make sure they do this effectively, we need to hear from you.

We are inviting individuals who have migrated to Canada through the Economic class (i.e. Skilled Worker Program, Business immigrants, Provincial/territorial nominees, live-in caregivers), and have completed and received a degree/diploma/certificate to participate in this research. You are invited to participate in the study if you are currently employed or have had some work experience in Canada.

Your participation in this research will include the following:

- Completing a survey on your employment experiences before moving to Canada, what your employment experience has been while in Canada, and what life has been like for you in terms of adapting to life in Canada

The survey will take approximately between 15 – 20 minutes to complete.

There is no external funding associated with this study.
There are benefits and risks of participating in this research. The potential benefits of this research include:

- There are no direct benefits to the participant.
- Contributing to a body of knowledge about immigrant employment experiences and immigrant adaptation.

Participants in this research risk:

- Embarrassment or discomfort when talking about your employment experiences. Most survey questions are optional, and questions that require responses include the option “Prefer not to say”.
- If data were breached, information could be revealed to the larger community in regards to immigrant employment experiences.

Upon completion of the study, you will be instructed to copy the code generated by the survey and paste to the MTurk survey link portal. Once the researcher has matched the survey code to your MTurk Worker ID, your responses will be approved and credit of $0.50 will be received. Please note that the researcher will have up to three (3) days to approve the responses. While the researcher has the ability to link the identity of the participant to the survey data, they will choose not to do so.

You may decline to answer any questions that you do not wish to answer, and you can withdraw your participation at any time by ceasing to answer questions, without penalty or loss of remuneration. To receive remuneration please proceed to the end of the questionnaire, obtain the unique code for this HIT, and submit it. If you withdraw, we will not use your survey results for the study.

Only members of the research team will have access to the survey data: Dr. Safdar and Omorowa Eguakun. Please note that confidentiality cannot be guaranteed while data are in transit over the internet. Results of this study will be presented at conferences and published in academic journals. You will not be directly or indirectly identified in these research outputs.

If you are using a public computer, it is highly recommended that you clear the browser history, empty the cache, and log-off the computer. This is necessary to ensure the privacy of your responses after leaving.

If you choose to give us your email address for feedback purposes, you are agreeing to be contacted by us via email, and you understand that a feedback email may be viewed by others because email can be forwarded or intercepted (accessed by someone through internet servers).
If you have any questions about this study, you are welcome to contact the Omorowa Eguakun at (519) 824-4120 (ext. 52884) or oeguakun@uoguelph.ca. You may also contact the Principal Investigator:

Dr. Saba Safdar

Department of Psychology

ssafdar@uoguelph.ca

519-824-4120 ext. 53520

If you feel any lingering distress from this study and wish to speak to someone, please consider this resource:

The LifeLine Foundation (thelifelinecanada.ca). There are several resources available nationally and by province, depending on where you are located.

RIGHTS OF RESEARCH PARTICIPANTS

i. You may withdraw your consent at any time and discontinue participation without penalty.

ii. You do not waive any legal rights by agreeing to take part in this study.

iii. This project has been reviewed by the Research Ethics Board for compliance with federal guidelines for research involving human participants.

iv. If you have questions regarding your rights and welfare as a research participant in this study (REB#17-09-027), please contact:

Director, Research Ethics
University of Guelph
reb@uoguelph.ca
(519) 824-4120 (ext. 56606)

I have read the information that explains this research project. I have had the opportunity to discuss the research and ask questions. My questions have been answered to my satisfaction. I know whom to contact if I have questions that arise during my participation.

I hereby consent to:

☐ Completing a survey on my employment experiences
Appendix K: Consent for Participants Through Recruitment

CONSENT TO PARTICIPATE IN RESEARCH

Greetings,

My name is Omorowa Eguakun. I am a master’s student at the University of Guelph in Ontario, Canada. I am working with Dr. Saba Safdar to study the influence of employment experiences on your life in Canada as a skilled immigrant. We are especially curious about how your feelings towards your job, and your relationship with both Canada and the country you migrated from has impacted your adjustment to life in Canada.

I am writing to invite you to participate in this research. We want to see whether skilled immigrants have had the opportunity to use their education and skills to their fullest capabilities. Learning about these experiences will be of use to various organizations and employment agencies for helping others in a similar situation. To make sure they do this effectively, we need to hear from you.

We are inviting individuals who have migrated to Canada through the Economic class (i.e. Skilled Worker Program, Business immigrants, Provincial/territorial nominees, live-in caregivers), and have completed and received a degree/diploma/certificate to participate in this research. You are invited to participate in the study if you are currently employed or have had some work experience in Canada.

Your participation in this research will include the following:

- Completing a survey on your employment experiences before moving to Canada, what your employment experience has been while in Canada, and what life has been like for you in terms of adapting to life in Canada.

The survey will take approximately between 15 – 20 minutes to complete.

There is no external funding associated with this study.

There are benefits and risks of participating in this research. The potential benefits of this research include:

- There are no direct benefits to the participant.
- Contributing to a body of knowledge about immigrant employment experiences and immigrant adaptation.
Participants in this research risk:

- Embarrassment or discomfort when talking about your employment experiences. Most survey questions are optional, and questions that require responses include the option “Prefer not to say”.
- If data were breached, information could be revealed to the larger community in regards to immigrant employment experiences.

Upon completion of the study, you may choose to be entered in a draw to win one of four Walmart gift cards worth $50 for your participation. The researcher hopes to recruit 200 people, making the chance of winning the prize 1 in 50—assuming that everyone chooses to enter their email into the draw. If you wish to enter the draw, you will be sent to a separate form where you will be asked to provide your email address. While the researcher has the ability to link the identity of the participant to the survey data, they will choose not to do so.

You do not have to participate in this research. You are free to withdraw at any time, with no consequences. If you withdraw, we will not use your survey results for the study. At any time while completing the survey, you can withdraw from this study by closing the browser.

Only members of the research team will have access to the survey data: Dr. Safdar and Omorowa Eguakun. Please note that confidentiality cannot be guaranteed while data are in transit over the internet. Results of this study will be presented at conferences and published in academic journals. You will not be directly or indirectly identified in these research outputs.

If you are using a public computer, it is highly recommended that you clear the browser history, empty the cache, and log-off the computer. This is necessary to ensure the privacy of your responses after leaving.

If you choose to give us your email address for feedback purposes, you are agreeing to be contacted by us via email, and you understand that a feedback email may be viewed by others because email can be forwarded or intercepted (accessed by someone through internet servers).

If you have any questions about this study, you are welcome to contact the Omorowa Eguakun at (519) 824-4120 (ext. 52884) or oequakun@uoguelph.ca. You may also contact the Principal Investigator:

Dr. Saba Safdar
If you feel any lingering distress from this study and wish to speak to someone, please consider this resource:

The LifeLine Foundation (thelifelinecanada.ca). There are several resources available nationally and by province, depending on where you are located.

RIGHTS OF RESEARCH PARTICIPANTS

v. You may withdraw your consent at any time and discontinue participation without penalty.
vi. You do not waive any legal rights by agreeing to take part in this study.
vii. This project has been reviewed by the Research Ethics Board for compliance with federal guidelines for research involving human participants
viii. If you have questions regarding your rights and welfare as a research participant in this study (REB#17-09-027), please contact:

Director, Research Ethics
University of Guelph
rebo@uoguelph.ca
(519) 824-4120 (ext. 56606)

I have read the information that explains this research project. I have had the opportunity to discuss the research and ask questions. My questions have been answered to my satisfaction. I know whom to contact if I have questions that arise during my participation.

I hereby consent to:

☐ Completing a survey on my employment experiences

Separate Form – participants will be redirected to this page.

I know that if I provide my contact information below, I am consenting to you contacting me by email, and accept the risks associated with electronic communications.
*Please note that while the researcher can link the identity of the participant to the survey data, they will choose not to do so.*

Final results and Gift card draw

Select (Yes) and provide your email address or leave this section BLANK.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>I would like to receive a copy of the final report. Please send or email* it to me at:</td>
</tr>
<tr>
<td>Yes</td>
<td>I would like to be entered to win a $50 gift card from Walmart</td>
</tr>
</tbody>
</table>

*If you have more than one email address, please provide us with the address that you are most comfortable receiving information to.*
Appendix L: Supplementary Analyses

Job Analysis

Occupations reported by participants before migration, as their first job and as their current job classified using the 2016 Canadian National Occupation Classification (NOC) system, a taxonomy created by professional job analysts employed by the Government of Canada that organizes jobs and categorizes them by skill type (NOC, 2016). The categories are described as follows:

Skill Type 0: Management jobs, such as restaurant managers, mine managers, etc.,

Skill Level A: professional jobs that typically require a degree from a university (e.g. doctors, teachers, accountants)

Skill Level B: technical jobs and skilled trade that typically require a college diploma or training as an apprentice (e.g. chefs, plumbers, technicians, etc.)

Skill Level C: intermediate jobs that typically require a high school degree and/or job specific training (e.g. food and beverage servers, bank clerks, drivers, etc.)

Skill Level D: labour jobs that typically provide on-the-job training (e.g. cleaning staff, food service attendants, factory workers, etc.)
According to the Government of Canada, “skilled” work is any job or occupation in the categories of 0, A or B (NOC, 2016). “Non-skilled” work is any job or occupation in categories C and D.

The data presented in Table 6 indicate that of those who reported that their position had changed over time. For their first position, several participants reported more jobs that were classified as “non-skilled” (56.6%) compared to skilled jobs (N = 36, 43.3%). For current jobs however, more participants reported having positions that were classified as skilled (N = 66, 74.2%) compared to non-skilled jobs. Figure 4 provides a visualization of skilled positions acquired, compared to non-skilled.
Table 5

*NOC Classification of Migrant Work upon arrival to Canada.*

<table>
<thead>
<tr>
<th>Classification</th>
<th>First Job</th>
<th>Current Job</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skill Type 0 (Management Jobs)</td>
<td>2 (2.4%)</td>
<td>9 (10.1%)</td>
</tr>
<tr>
<td>Skill Level A (Professional Jobs)</td>
<td>21 (25.6%)</td>
<td>42 (47.2%)</td>
</tr>
<tr>
<td>Skill Level B (Technical Jobs)</td>
<td>13 (15.9%)</td>
<td>15 (16.9%)</td>
</tr>
<tr>
<td>Skill Level C (Intermediate Jobs)</td>
<td>23 (28.0%)</td>
<td>12 (13.5%)</td>
</tr>
<tr>
<td>Skill Level D (Labour Jobs)</td>
<td>23 (28.0%)</td>
<td>2 (2.2%)</td>
</tr>
<tr>
<td>Other</td>
<td>1 (1.1%)</td>
<td>3 (3.4%)</td>
</tr>
<tr>
<td>Total “Skilled” Jobs</td>
<td>36 (43.3%)</td>
<td>66 (74.2%)</td>
</tr>
<tr>
<td>Total “Non-Skilled” Jobs</td>
<td>51 (56.6%)</td>
<td>17 (19.1%)</td>
</tr>
</tbody>
</table>
Figure 4. Number of skilled positions versus non-skilled positions among participants who have acquired more than one job in Canada.

Figure 5 represents participants job acquisition classified via skilled and non-skilled jobs (as determined by the NOC) as well as the number of years they have lived in Canada. Participants who have lived in Canada less than 5 years had a relatively equal number of skilled (N=22) and non skilled positions (N=19) among their group, but clearer differences arise beyond the five year benchmark – in comparison, migrants who had lived in Canada for more than 5 years had more skilled positions (N = 69) instead of unskilled positions (N = 22).
Figure 5. Number of skilled and non-skilled positions acquired by migrants, separated by number of years lived in Canada.
Table 6

*Means of Key Variables by Visible Minority Status.*

<table>
<thead>
<tr>
<th>Variables</th>
<th>Identified as VM</th>
<th>No VM Status</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean (SD)</td>
<td>Mean (SD)</td>
</tr>
<tr>
<td>Perceived Mismatch</td>
<td>3.57 (0.90)</td>
<td>3.31 (0.95)</td>
</tr>
<tr>
<td>Perceived No Growth</td>
<td>2.55 (0.76)</td>
<td>2.30 (0.74)</td>
</tr>
<tr>
<td>Job Satisfaction</td>
<td>4.96 (1.50)</td>
<td>5.26 (1.26)</td>
</tr>
<tr>
<td>Heritage Orientation</td>
<td>4.61 (1.66)</td>
<td>5.01 (1.25)</td>
</tr>
<tr>
<td>Host Orientation</td>
<td>5.74 (1.13)</td>
<td>5.89 (1.21)</td>
</tr>
<tr>
<td>Economic Adaptation</td>
<td>3.17 (0.79)</td>
<td>3.36 (0.86)</td>
</tr>
<tr>
<td>Sociocultural Adaptation</td>
<td>5.20 (0.98)</td>
<td>5.37 (0.96)</td>
</tr>
<tr>
<td>Psychological Adaptation</td>
<td>4.43 (0.97)</td>
<td>4.66 (0.82)</td>
</tr>
</tbody>
</table>
Table 7

*Results of ANOVA for Mean Job Satisfaction, Perceived Overqualification, Acculturation Orientation, and Adaptation, based on Visible Minority Status.*

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>Sum of Squares</th>
<th>df</th>
<th>F</th>
<th>η²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived Mismatch</td>
<td>3.48</td>
<td>0.92</td>
<td>2.18</td>
<td>1, 132</td>
<td>2.56</td>
<td>0.02</td>
</tr>
<tr>
<td>Perceived No Growth</td>
<td>2.45</td>
<td>0.76</td>
<td>1.94</td>
<td>1, 132</td>
<td>3.43</td>
<td>0.03</td>
</tr>
<tr>
<td>Job Satisfaction</td>
<td>5.09</td>
<td>1.42</td>
<td>2.82</td>
<td>1, 132</td>
<td>1.41</td>
<td>0.01</td>
</tr>
<tr>
<td>Heritage Orientation</td>
<td>4.76</td>
<td>1.53</td>
<td>4.92</td>
<td>1,132</td>
<td>2.11</td>
<td>0.02</td>
</tr>
<tr>
<td>Host Orientation</td>
<td>5.80</td>
<td>1.16</td>
<td>0.67</td>
<td>1,132</td>
<td>0.50</td>
<td>0.00</td>
</tr>
<tr>
<td>Economic Adaptation</td>
<td>3.24</td>
<td>0.81</td>
<td>1.06</td>
<td>1, 132</td>
<td>1.60</td>
<td>0.01</td>
</tr>
<tr>
<td>Sociocultural Adaptation</td>
<td>5.28</td>
<td>0.98</td>
<td>0.80</td>
<td>1, 132</td>
<td>0.84</td>
<td>0.01</td>
</tr>
<tr>
<td>Psychological Adaptation</td>
<td>4.53</td>
<td>0.94</td>
<td>1.66</td>
<td>1, 132</td>
<td>1.97</td>
<td>0.02</td>
</tr>
</tbody>
</table>
Table 8

*Means of Key Variables by Continent.*

<table>
<thead>
<tr>
<th>Variables</th>
<th>North America</th>
<th>South America</th>
<th>Asia</th>
<th>Africa</th>
<th>Europe</th>
<th>Australia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived Mismatch</td>
<td>3.75 (0.24)</td>
<td>3.63 (0.22)</td>
<td>3.30 (0.12)</td>
<td>3.77 (0.25)</td>
<td>3.50 (0.20)</td>
<td>4.38 (0.64)</td>
</tr>
<tr>
<td>Perceived No Growth</td>
<td>2.06 (0.20)</td>
<td>2.51 (0.18)</td>
<td>2.53 (0.10)</td>
<td>2.76 (0.21)</td>
<td>2.29 (0.16)</td>
<td>2.40 (0.53)</td>
</tr>
<tr>
<td>Job Satisfaction</td>
<td>5.50 (0.37)</td>
<td>5.09 (0.33)</td>
<td>5.23 (0.18)</td>
<td>3.87 (0.38)</td>
<td>5.05 (0.30)</td>
<td>4.67 (0.98)</td>
</tr>
<tr>
<td>Heritage Orientation</td>
<td>5.39 (0.41)</td>
<td>4.59 (0.36)</td>
<td>4.71 (0.19)</td>
<td>3.94 (0.42)</td>
<td>4.95 (0.33)</td>
<td>6.00 (1.08)</td>
</tr>
<tr>
<td>Host Orientation</td>
<td>6.17 (0.31)</td>
<td>5.78 (0.27)</td>
<td>5.91 (0.14)</td>
<td>4.92 (0.32)</td>
<td>5.82 (0.25)</td>
<td>5.63 (0.81)</td>
</tr>
<tr>
<td>Economic Adaptation</td>
<td>3.26 (0.22)</td>
<td>3.31 (0.20)</td>
<td>3.26 (0.10)</td>
<td>2.97 (0.23)</td>
<td>3.21 (0.18)</td>
<td>3.58 (0.59)</td>
</tr>
<tr>
<td>Sociocultural Adaptation</td>
<td>5.85 (0.25)</td>
<td>5.34 (0.22)</td>
<td>5.26 (0.12)</td>
<td>4.39 (0.26)</td>
<td>5.30 (0.20)</td>
<td>6.00 (0.66)</td>
</tr>
</tbody>
</table>
Table 9

Results of ANOVA for Mean Job Satisfaction, Perceived Overqualification, Acculturation Orientation, and Adaptation based on Continent

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>Sum of Squares</th>
<th>df</th>
<th>F</th>
<th>η²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived Mismatch</td>
<td>3.48</td>
<td>0.92</td>
<td>8.29</td>
<td>6, 125</td>
<td>1.67</td>
<td>0.07</td>
</tr>
<tr>
<td>Perceived No Growth</td>
<td>2.45</td>
<td>0.76</td>
<td>4.70</td>
<td>6, 125</td>
<td>1.38</td>
<td>0.06</td>
</tr>
<tr>
<td>Job Satisfaction</td>
<td>5.09</td>
<td>1.42</td>
<td>23.52</td>
<td>6, 125</td>
<td>2.04</td>
<td>0.09</td>
</tr>
<tr>
<td>Heritage Orientation</td>
<td>4.76</td>
<td>1.53</td>
<td>19.36</td>
<td>6, 125</td>
<td>1.39</td>
<td>0.06</td>
</tr>
<tr>
<td>Host Orientation</td>
<td>5.80</td>
<td>1.16</td>
<td>12.86</td>
<td>6, 125</td>
<td>1.64</td>
<td>0.07</td>
</tr>
<tr>
<td>Economic Adaptation</td>
<td>3.24</td>
<td>0.81</td>
<td>1.42</td>
<td>6, 125</td>
<td>0.35</td>
<td>0.02</td>
</tr>
<tr>
<td>Sociocultural Adaptation</td>
<td>5.28*</td>
<td>0.98</td>
<td>16.08</td>
<td>6, 125</td>
<td>3.10</td>
<td>0.13</td>
</tr>
<tr>
<td>Psychological Adaptation</td>
<td>4.53</td>
<td>0.94</td>
<td>7.66</td>
<td>6, 125</td>
<td>1.54</td>
<td>0.07</td>
</tr>
</tbody>
</table>

*Note.* *p* < 0.05
Table 10

*Pairwise Comparisons for Sociocultural Adaptation by Continent.*

<table>
<thead>
<tr>
<th>Variables</th>
<th>North America</th>
<th>South America</th>
<th>Asia</th>
<th>Africa</th>
<th>Europe</th>
<th>Australia</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean Difference (SE)</td>
<td>Mean Difference (SE)</td>
<td>Mean Difference (SE)</td>
<td>Mean Difference (SE)</td>
<td>Mean Difference (SE)</td>
<td>Mean Difference (SE)</td>
</tr>
<tr>
<td>North America</td>
<td>--</td>
<td>-0.51 (0.33)</td>
<td>-0.58 (0.38)*</td>
<td>-0.95 (0.34)*</td>
<td>-1.46 (0.36)*</td>
<td>-1.62 (0.71)*</td>
</tr>
<tr>
<td>South America</td>
<td>-0.55 (0.32)</td>
<td>-0.04 (0.30)</td>
<td>0.04 (0.23)</td>
<td>0.92 (0.33)*</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Asia</td>
<td>-0.58 (0.38)*</td>
<td>-0.08 (0.25)</td>
<td>-</td>
<td>-0.88 (0.28)*</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Africa</td>
<td>-1.46 (0.36)*</td>
<td>-0.95 (0.34)*</td>
<td>-0.88 (0.28)*</td>
<td>-</td>
<td>-0.55 (0.32)</td>
<td>-1.62 (0.71)*</td>
</tr>
<tr>
<td>Europe</td>
<td>-0.55 (0.32)</td>
<td>-0.04 (0.30)</td>
<td>0.04 (0.23)</td>
<td>0.92 (0.33)*</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Australia</td>
<td>0.15 (0.70)</td>
<td>0.66 (0.69)</td>
<td>0.74 (0.67)</td>
<td>1.62 (0.71)*</td>
<td>0.70 (0.69)</td>
<td>--</td>
</tr>
</tbody>
</table>

*Note.* *p < 0.05
<table>
<thead>
<tr>
<th>Variables</th>
<th>Less than 5 years</th>
<th>5-10 Years</th>
<th>More than 10 years</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean (SD)</td>
<td>Mean (SD)</td>
<td>Mean (SD)</td>
</tr>
<tr>
<td>Perceived Mismatch</td>
<td>3.54 (0.99)</td>
<td>3.53 (0.88)</td>
<td>3.41 (0.91)</td>
</tr>
<tr>
<td>Perceived No Growth</td>
<td>2.58 (0.73)</td>
<td>2.51 (0.69)</td>
<td>2.34 (0.81)</td>
</tr>
<tr>
<td>Job Satisfaction</td>
<td>4.72 (1.36)</td>
<td>4.92 (1.49)</td>
<td>5.40 (1.36)</td>
</tr>
<tr>
<td>Heritage Orientation</td>
<td>4.59 (1.59)</td>
<td>4.67 (1.54)</td>
<td>4.92 (1.50)</td>
</tr>
<tr>
<td>Host Orientation</td>
<td>5.88 (1.02)</td>
<td>5.54 (1.32)</td>
<td>5.89 (1.15)</td>
</tr>
<tr>
<td>Economic Adaptation</td>
<td>3.12 (0.92)</td>
<td>3.15 (0.92)</td>
<td>3.37 (0.65)</td>
</tr>
<tr>
<td>Sociocultural Adaptation</td>
<td>5.24 (0.87)</td>
<td>5.01 (1.10)</td>
<td>5.42 (0.95)</td>
</tr>
<tr>
<td>Psychological Adaptation</td>
<td>4.45 (1.00)</td>
<td>4.37 (0.93)</td>
<td>4.64 (0.86)</td>
</tr>
</tbody>
</table>
Table 12

Results of ANOVA for Mean Job Satisfaction, Perceived Overqualification, Acculturation Orientation, and Adaptation by Number of Years in Canada.

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>Sum of Squares</th>
<th>df</th>
<th>F</th>
<th>ηp²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived Mismatch</td>
<td>3.48</td>
<td>0.92</td>
<td>0.54</td>
<td>2, 129</td>
<td>0.31</td>
<td>0.01</td>
</tr>
<tr>
<td>Perceived No Growth</td>
<td>2.45</td>
<td>0.76</td>
<td>1.58</td>
<td>2, 129</td>
<td>1.38</td>
<td>0.02</td>
</tr>
<tr>
<td>Job Satisfaction</td>
<td>5.09*</td>
<td>1.42</td>
<td>12.08</td>
<td>2, 129</td>
<td>3.10</td>
<td>0.05</td>
</tr>
<tr>
<td>Heritage Orientation</td>
<td>4.76</td>
<td>1.53</td>
<td>3.01</td>
<td>2, 129</td>
<td>0.64</td>
<td>0.01</td>
</tr>
<tr>
<td>Host Orientation</td>
<td>5.80</td>
<td>1.16</td>
<td>2.94</td>
<td>2, 129</td>
<td>1.10</td>
<td>0.02</td>
</tr>
<tr>
<td>Economic Adaptation</td>
<td>3.24</td>
<td>0.81</td>
<td>1.82</td>
<td>2, 129</td>
<td>1.38</td>
<td>0.02</td>
</tr>
<tr>
<td>Sociocultural Adaptation</td>
<td>5.28</td>
<td>0.98</td>
<td>3.61</td>
<td>2, 129</td>
<td>1.93</td>
<td>0.03</td>
</tr>
<tr>
<td>Psychological Adaptation</td>
<td>4.53</td>
<td>0.94</td>
<td>1.78</td>
<td>2, 129</td>
<td>1.05</td>
<td>0.02</td>
</tr>
</tbody>
</table>

Note. *p < 0.05
Table 13  
*Pairwise Comparisons for Job Satisfaction by Number of Years in Canada.*

<table>
<thead>
<tr>
<th>Variables</th>
<th>Less than 5 years</th>
<th>5-10 years</th>
<th>More than 10 years</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean Difference (SE)</td>
<td>Mean Difference (SE)</td>
<td>Mean Difference (SE)</td>
</tr>
<tr>
<td>Less than 5 Years</td>
<td>--</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5-10 years</td>
<td>0.20 (0.33)</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>More than 10 years</td>
<td>0.68 (0.29)*</td>
<td>0.48 (0.30)</td>
<td>--</td>
</tr>
</tbody>
</table>

*Note. *p < 0.05*