

A Longitudinal Investigation of the Sociocultural Adaptation of Brazilian Students in New
Zealand

by
Jessica Williamson

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Abstract

Global mobility means increasing numbers of individuals are exposed to potentially stressful experiences in their cross-cultural transition. A process of cultural learning is required to overcome differences between host and home culture during sociocultural adaptation. To study this process, this thesis employed a mixed-methods approach examining adaptive trajectory over a six-month educational exchange. The study analysed a unique population of 279 Brazilian high school students from low SES backgrounds arriving in New Zealand. Results from cross-lagged panel models in Study 1 indicated that higher initial ratings of English progress led to subsequent higher levels of interactions with New Zealanders three months after, which then led to higher ratings of language progress at the final time-point. A longitudinal mediation showed interaction with New Zealanders at the mid-point of the sojourn helped explain increased English ability over time. No longitudinal relations were observed for culture shock, indicating the influence of language progress and interactions with host culture on culture shock may vary across populations. In Study 2, we used thematic analysis on students' open-ended interview responses to examine what their experiences in the new culture were. Three themes were identified: opportunities, difficulties, and general feelings. The identified themes supported the findings of Study 1 and highlighted the crucial role of language and social support during the students' experiences. Combined, the studies partially confirmed previous research with our unique sample of Brazilian students, and placed further emphasis on the need to sample different populations in the study of adaptation.

Keywords: sociocultural adaptation, acculturation, longitudinal research, sojourners

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Chapter 1: General Introduction

The process of immigration and acculturation is becoming more important in the current climate of mobility between countries and across cultures. In recent years, motivation for travel between countries has increased, whether for leisure, work, study, immigration, or to seek refuge. Globally, 244 million people migrated in 2015, an increase of 10% when compared to the 222 million migrants in 2010 (United Nations, 2016). In New Zealand, recent data indicates that permanent and long term migration to New Zealand has increased by approximately 6,700 people between 2015 and 2016, with a net migration in 2016 of over 70,000 people (Statistics New Zealand, 2016). Tourism statistics show a similar increase with approximately 360,000 travellers coming into New Zealand between 2015 and 2016 (Statistics New Zealand, 2016).

Given this backdrop of increasing mobility across cultures, it is important to consider that the process of moving to another country and the interactions with individuals from other cultural backgrounds can create significant levels of stress. The study of adaptation to a new cultural setting is not new; a large body of literature has formed in the past few decades (e.g. Berry, Phinney, Sam, & Vedder, 2006; Bochner, 1982; Ward & Kennedy, 1993a, 1993b; Zhang & Goodson, 2011). Overall, this line of research indicates that high stress from moving to another cultural setting has profound negative effects on the adjustment of immigrants and sojourners, or people who reside temporarily in a place, to the host culture. To illustrate, Levitt, Lane, and Levitt (2005) examined newly immigrated parents and children who moved to the United States. They showed that stress occurred across all age ranges, and higher levels of stress had more profound negative effects on adjustment. In children, these outcomes included depression, lower self-concept, and reduced adaptation to school, and in adults, reduced life satisfaction and affect.

Indeed, movement between countries requires immigrants and sojourners to adapt to various lifestyle and social changes, as the country of origin and country of arrival can often be significantly different across many facets of everyday life, such as through language and social norms. This disparity between host and home cultures is referred to as ‘cultural distance’ (Furnham & Bochner, 1986). The degree of difference between the sojourner and the host culture is directly and consistently related to levels of stress and the amount of difficulty the individual reports experiencing in the adaptation process (Furnham & Bochner, 1986). Searle and Ward (1990) analysed the effect of cultural distance on adaptation, and concluded that greater cultural distance negatively influences sociocultural adaptation and the acquisition of culture-specific skills. Providing further support for previous literature, the authors demonstrated in a subsequent publication that an increase in cultural distance resulted in more intense life changes, and found a clear link between cultural distance and psychological disturbance during cross-cultural transition (Ward & Searle, 1991).

With stress a frequent and potentially debilitating consequence of cross-cultural travel, it is important to understand the difficulties that contribute to a negative experience, as well as the redeeming features that can aid travellers and foster a positive adaptation experience. However, much of the research conducted in this area is cross-sectional in nature, which limits the ability to examine trajectory or change over time (but see Demeis & Geeraert, 2015). The current research extends the well-established body of cross-sectional literature, and the emerging number of longitudinal studies in the area, through the use of a longitudinal design to examine a population of 279 international students over three points of measurement across a four month period. The population of the current research was a group of Brazilian high school students from low Socio-Economic Status (SES) backgrounds who travelled on an educational exchange to learn English in New Zealand schools as part of a programme run by the government of the state of Pernambuco in Brazil.

This investigation begins with a discussion of the types of adaptation, as well as the conceptualisation of sociocultural adaptation and the key variables related to it. Given the sample considered in the present study, the literature review will tend to centre on research on the adaptation of international students.

Adaptation

Regarding the study of adaptation, two populations have been most prominent: immigrants, and sojourners. Immigrants are people who travel to a new country permanently, while sojourners stay in a country only temporarily. Further, research has identified two types of adaptation experienced by people immigrating or sojourning to another culture: psychological adaptation and sociocultural adaptation (Hirai, Frazier, & Syed, 2015; Searle & Ward, 1990). Psychological adaptation focuses on life satisfaction, coping and well-being of individuals, and positive perceptions of experiences and situations (Maydell-Stevens, Masgoret, & Ward, 2007; Searle & Ward, 1990). In contrast, sociocultural adaptation emphasises the behavioural components of adaptation and the ability to fit into the new and different host culture, with additional importance placed on cultural learning (Maydell-Stevens et al., 2007; Searle & Ward, 1990).

Searle and Ward (1990) suggested that psychological adaptation follows a clear recuperation model, in which experiences are characterised by an initial difficulty in adjustment, followed by an overcoming of that difficulty. One of the most popular early depictions of a recuperation model is the U-curve proposed by Oberg (1960) where adaptation is characterised by an initial euphoric state, followed by a period of culture shock, and an eventual recovery. The U-curve has received occasional support (Selmer, 2006) but is largely unsupported by longitudinal research that looks at sojourning student adjustment (Ward, Bochner, & Furnham, 2005). Other research has refuted the presence of such a curve in preference of the alternative, a learning curve (Hirai et al., 2015; Ward & Kennedy, 1999;

Ward, Okura, Kennedy, & Kojima, 1998), or has even suggested the psychological adjustment curve forms a different shape, such as a reverse J-curve or an inverse U-curve (Demes & Geeraert, 2015).

Sociocultural adaptation, in contrast, is depicted not through a U-curve, but rather through a learning curve (Searle & Ward, 1990) in which sociocultural adjustment increases over time before a plateau is reached (Ward & Kennedy, 1999). Searle and Ward (1990) explained that the learning model assumes that in cultural transition, sojourners will acquire culturally appropriate skills through contact with host nationals, cultural experience, and training. Over time, sojourners will gain the cultural skills necessary for acclimation to the host society, which results in an increased adaptation. The cultural distance between the host and home culture effects the extent of the social difficulty and sociocultural adjustment difficulty experienced by an individual. Greater cultural distance requires greater effort to learn the more varied cultural norms and skills to navigate the new culture (Searle & Ward, 1990). The process of overcoming the presence of social difficulty follows a social learning framework and is typified by a steep initial increase over the first few months, in which sojourners learn the new culturally-appropriate skills for adjustment through a process of social communication and cultural learning. This rising learning curve is followed by a plateau after sojourners have learned all they can (Hechanova-Alampay, Beehr, Christiansen, & Van Horn, 2002; Ward et al., 1998). Overall, the extant literature indicates that problems associated with sociocultural adaptation are expected to decrease with extended exposure to the host culture, as greater knowledge of culture and better communication eases difficulties (Ward et al., 1998).

The trajectory of sociocultural adaptation as a learning curve is further supported by studies that found the greatest sociocultural difficulties at the individual's point of entry to a new culture, as this is the point where there is the least familiarity with the new culture (e.g.

Hechanova-Alampay et al., 2002; Hirai et al., 2015; Searle & Ward, 1990; Ward et al., 1998; Ward & Kennedy, 1999). Additionally, sojourners experienced greater sociocultural adaptation issues than individuals who stay for extended periods of time and who have a longer period of time to adapt and learn skills relevant to the new culture (Ward & Kennedy, 1999).

The presence of a universal learning curve can also be applied to recent discussions of acculturation and adaptation by Bornstein (2017) who has argued for a differentiation of the specific mechanisms through which adaptation can occur. He argued for the application of the specificity principle to acculturation research, with the proposal that the individual, the setting, the process, the domain, and time, each have a specific contribution to adaptation. Further, Bornstein (2017) suggested that these specifics can interact in ways that create a unique experience for different people and populations in cross-cultural transition. Theoretically, this indicates that groups that subsume different specific components may have different experiences of adaptation, but also that different specific components can converge to produce similar outcomes, such as the frequent depiction of a learning curve across different cultural groups.

Prior research has acknowledged several key components of sociocultural adaptation across various populations, including cultural knowledge, interaction with the host culture, cultural distance, language fluency, and acculturation strategies (Searle & Ward, 1990; Ward & Kennedy, 1993a, 1993b). These components are more related to sociocultural adaptation than to psychological adaptation because they tend toward the cultural learning and skill development component of adaptation and social competence in the management of daily life, as opposed to any psychological components (Berry et al., 2006).

There is a well-established body of literature that has examined variables that influence the process of sociocultural adaptation among sojourners, immigrants, and refugees

(e.g. Li & Gasser, 2005; Searle & Ward, 1990). To illustrate, Zhang and Goodson (2011) conducted a review of literature, with the focus specifically on the context of psychological and sociocultural adaptation of international students in the United States. They outlined that international students who self-reported higher levels of English proficiency and those who had more contact with host nationals had better sociocultural adjustment. Additionally, stress and lack of social support were the most frequent predictors of psychological symptoms such as depression, depressive symptoms, and psychological well-being (see also Tabor & Milfont, 2013).

More recently, Wilson, Ward and Fischer (2013) conducted a meta-analysis that examined the existing research that used one particular scale, the Socio-Cultural Adaptation Scale (SCAS), which is a sociocultural adaptation measure. The authors calculated effect sizes for the predictors of sociocultural adaptation across all studies, and their results indicated that individuals who had better language competency, greater cultural knowledge, and more contact with host nationals had a better sociocultural adaptation trajectory. These authors also found that those who perceived greater levels of discrimination toward them from the host nationals, or a larger disparity between characteristics of their host and home culture, had lower levels of sociocultural adaptation.

The current research will focus on sociocultural adaptation to examine the changes that occur over time in various behaviours of sojourning students. In the present study, we focus on behaviours as components of sociocultural adaptation, such as interaction with host culture and language proficiency (Searle & Ward, 1990). Focusing on behaviours as components in this regard may indicate clear intervention areas for policy and practice through which the adaptation of international students in New Zealand can be improved. Due to this emphasis, the literature review focuses on sociocultural adaptation to examine the changes that occur over time in various behaviours of sojourning students.

Key Aspects Related to Sociocultural Adaptation

Previous literature has examined many aspects associated with sociocultural adaptation. This has included components from perceived discrimination, to personality factors such as neuroticism and extraversion, to length of residence (see Ward, Leong, & Low, 2004; Wilson et al., 2013). Research on sociocultural adaptation indicates that two of the most important components for successful sociocultural adaptation are language proficiency and host national contact (O'Reilly, Ryan, & Hickey, 2010; Wilson et al., 2013; Zhang & Goodson, 2011). In contrast, culture shock has been discussed as an outcome of poor sociocultural adaptation, with less cultural knowledge resulting in an increase in the acculturative stress experienced (Chapdelaine & Alexitch, 2004; Xia, 2009). Given the established importance of these variables for sociocultural adaptation, we place emphasis on the components of language proficiency and interactions with host nationals, alongside culture shock. These three factors will be outlined in the next sections.

Language proficiency. For travellers that move between cultures, language differences may prove to be one of the most difficult and essential barriers to overcome (Argyle, 1982). Argyle even suggested that language fluency is a necessary condition that must be fulfilled for foreign students to successfully adjust to the new culture. Subsequent research has demonstrated that low competency in the host language is a significant barrier to adaptation (Adamuti-Trache, 2013; O'Reilly et al., 2010), and that language proficiency has a significant influence on effective sociocultural adaptation (Kagan & Cohen, 1990; Ward & Masgoret, 2006; Wilson et al., 2013; Yu & Shen, 2012; Zhang & Goodson, 2011). Additionally, Ng (2006) found that students who are more competent in the host language show quicker adaptation as well as a higher quality of adaptation than their less fluent peers.

Chiswick, Lee, and Miller (2004) found that language proficiency, including reading, writing, and speaking skills improve over time among immigrants. In his work on Malaysian

students in Britain, Swami (2009) found that language proficiency was the second greatest predictor of sociocultural adaptation, after perceived discrimination, for ethnically Malay students, while it was the greatest predictor for ethnically Chinese students. These findings were replicated later by Swami, Arteche, Chamorro-Premuzic, and Furnham (2010) who found that language proficiency explained the second highest amount of sociocultural adaptation. Furthermore, studies have demonstrated that greater language proficiency positively facilitates interactions with host nationals, which can lead to an increase in cultural knowledge (Church, 1982; Oberg, 1960; Swami et al., 2010). Cultural knowledge and cultural learning form an important foundation of sociocultural adaptation as noted by Berry et al. (2006), who further supported the links between language and other aspects of adaptation. These conclusions are complimented by research that shows that increased host language proficiency and host national language use is associated with greater contact with host national peers, as well as higher support for integration as the favoured acculturation strategy. With integration widely regarded as the most successful and preferable acculturation strategy, these findings further support the importance of language proficiency as a tool for adaptation (Berry, 1997).

Language proficiency is related to many other facets of sociocultural adaptation, with the most frequent example of this being that greater language skills have a direct and positive relationship with students' interactions with members of the host culture (Clément, Noels, & Deneault, 2001; Kim, 1977; Selmer, 2006; Ward & Kennedy, 1993b). Hayes and Lin (1994) also found that not only do students with adequate English adapt more successfully to English-speaking cultures, but that an inability to speak the host language significantly inhibits social involvement in the host society. Additionally, language proficiency is associated with a reduction of potentially negative aspects linked to immigrating and sojourning. Yeh and Inose (2003) provided evidence that higher self-ratings of English

language proficiency were associated with less acculturative stress, otherwise known as culture shock. These studies indicate that students with greater mastery of the English language are more likely to adapt better to the new culture, and face fewer difficulties throughout this process.

Interaction with host culture. Ward and Kennedy (1993b, 1999) found that a number of factors related to interaction with host culture are significant predictors of better sociocultural adaptation. These included an individual's relationship to the host culture, interaction with members of that culture, integration within the new culture, and identification with host nationals. Subsequent studies found similar results. For example, Asian students who had more contact with United States nationals demonstrated significantly higher sociocultural adaptation (Li & Gasser, 2005). Similarly, local ties contributed significantly and positively to Australian cultural knowledge among Asian international students in Australia (Kashima & Loh 2006).

When entering a new culture, people form many different social networks which they call on for support. Foreign students tend to have several different networks made up of members of their original culture, host culture, and multinationals. Bochner, McLeod and Lin (1977) developed the 'Functional Friendship Model' to detail an individual's need to access relevant cultural information in order to successfully adapt to their new surroundings, with interactions with host nationals a method of acquiring this information. Church (1982) and Hirai et al. (2015) provided support for this model and found that relationships with Americans, which were the relevant host culture in these studies, were particularly important in sojourner adjustment. This is because these relationships enhanced cultural skills and allowed for adequate social support in times of need. Indeed, students who report more friends from the host culture adjusted better and encountered fewer adaptation issues, especially after an extended period of time in the new country (Hechanova-Alampay et al.,

2002). Furthermore, in a longitudinal study on international students settling into the United States, Cemalcilar and Falbo (2008) found a significant increase in identification with the host culture between the start and end of the measurement period of approximately three months. What these authors found supports the focus on student interactions with the host nationals in the current research, as host nationals can be a point of support during cultural transition and facilitate successful adaptation of the students.

It is notable that the two influential factors of sociocultural adaptation, language proficiency and interactions with host nationals, are likely related. Interactions with host nationals can be greatly affected by an individual's ability to speak the language as well as their ability to acquire it (see, Clément et al., 2001; Gijssberts & Dagevos, 2007; Hayes & Lin, 1994). To illustrate, in their study with Malaysian students in Britain Swami et al. (2010) found that participants with higher English language proficiency were better adapted to the host culture, partially because they were able to have more contact with host nationals. These results highlighted that having common ground in the language lowered the perceived cultural differences between the international students and host nationals, which allowed for greater contact (Swami et al., 2010). Selmer (2006) supported this relationship and found that language ability has a strong positive relationship with interactions with host nationals. Beyond this association, Gullahorn and Gullahorn (1966) proposed that the relationship between language ability and interactions with host nationals was most likely a reciprocal relationship, and that greater language skills leads to increased participation and interaction with the culture, which in turn improves language ability through practice. The intrinsic relationship between language proficiency and interaction with host culture will therefore be examined in the present study.

Culture shock. As noted previously, when an individual immigrates or sojourns to a new culture, they can be struck with an influx of unfamiliar components which include

people, places, customs, and expectations. To some, this is a stressful and different situation and results in what is called ‘culture shock’ (Oberg, 1960). Culture shock has more recently been defined as “contact-induced stress accompanied by skill deficits that can be managed and ameliorated” (Zhou, Jindal-Snape, Topping, & Todman, 2008, p. 65).

The effects of culture shock include significant amounts of stress caused by unfamiliarity and uncertainty, accompanied by emotional discomfort and helplessness, which make an individual who experiences culture shock less motivated to adapt (Xia, 2009). This lack of motivation potentially affects cultural learning, which would have corresponding negative effects on sociocultural adaption.

Previous research has shown a relationship between cultural knowledge and individuals’ experiences of culture shock. For example, adjustment difficulties that arise from a lack of awareness of social rules that influence interactions with the new culture are an important contributor to culture shock (Xia, 2009). To overcome these difficulties and reduce the experience of culture shock, cultural learning and the improvement of culturally relevant knowledge is necessary, which often occurs through the process of sociocultural adaptation (Chapdelaine & Alexitch, 2004).

Notably, culture shock has been previously associated with language proficiency (e.g. Yeh & Inose, 2003) and host national interaction (e.g. Chapdelaine & Alexitch, 2004). The relationship between culture shock and language proficiency was discussed in an earlier section with higher self-ratings of language proficiency associated with lower levels of culture shock (Yeh & Inose, 2003). Chapdelaine and Alexitch (2004) linked together culture shock and interactions with host nationals through an extension of the social skills and cultural learning model of culture shock. The authors demonstrated a negative relationship between social interactions with host nationals and culture shock, which suggests that more interactions with host nationals were associated with lower levels of culture shock. Based on

this pre-existing literature, the relationship between culture shock and interactions with host nationals, as well as with language proficiency, will be examined in the present study.

Longitudinal Literature

One main critique of the research that examines sociocultural adaptation to date is that the vast majority involves analysis of cross-sectional data, with few studies that have used longitudinal designs. With the concept of adaptation largely recognised as process-driven (Demes & Geeraert, 2015; Oberg, 1960; Ward & Geeraert, 2016), it is important to examine adaptation over time so that the process can be tracked for changes and variability. Because of this, an increasing number of studies on adaptation are employing longitudinal designs (e.g. Hechanova-Alampay et al., 2002; Hirai et al., 2015).

Our review of the literature identified only five longitudinal studies that focused on trajectories and predictors of sociocultural adaptation, which are summarised in Table 1. Most of these studies examined adaptation into Western countries. For example, Ward et al. (1998) found in their study of Japanese students in New Zealand, that social difficulty was greatest on arrival and decreased over time. Moreover, the authors investigated the longitudinal relationship between psychological and sociocultural adaptation, and found that the size of the relationship increased across the measurement period of a year. This indicates that over time, psychological and sociocultural adaptation became more related. In their analysis of sociocultural adaptation and the SCAS, Ward and Kennedy (1999) examined four longitudinal samples from various sources. These populations included Malaysian and Singaporean secondary students in New Zealand; New Zealand volunteers in various developing countries; Japanese tertiary students in New Zealand; and Singaporean students in Australia, New Zealand, China, the United States, and the United Kingdom. The authors' findings were consistent with that of Ward et al. (1998), and confirmed that sociocultural adaptation problems were greatest in the early stages and decreased over time.

Hechanova-Alampay et al. (2002) identified predictors of adjustment in their study of international sojourners to the United States, as well as domestic student sojourners, who had travelled from a different location within United States. The authors found that social support and interactions with the host culture were positively related to adjustment in the international sample. In her analysis of long-term immigrant adaptation to Finland, Jasinskaja-Lahti (2008) found that sociocultural adaptation improved over time, and that sociocultural adaptation at entry predicted psychological adaptation eight years later. The author concluded that host language proficiency early in the experience can aid cultural competence over time. More recently, Hirai et al. (2015) conducted a five measurement point longitudinal study of first year undergraduate and graduate students in the United States. They found that on average, sociocultural difficulties decreased over the six-month measurement period. Regarding the predictors of adjustment, connectedness with host nationals predicted both psychological stress and sociocultural adjustment, and communication comfort with English was predictive of positive psychological adjustment trajectories.

Overall, longitudinal findings have aligned with previous adaptation theory and provided strong support for the decrease of sociocultural adaptation difficulties over time. However, only two of the longitudinal studies presented analysed the predictors of sociocultural adaptation (Hechanova-Alampay et al., 2002; Hirai et al. , 2015), with findings having only suggested that interactions with host nationals was a significant predictor of sociocultural adaptation.

Table 1

Longitudinal Studies Highlighting Sociocultural Adaptation

Author	Participant Type	Country of Origin	Host Country	Trajectory of Sociocultural Adaptation	Predictors of Sociocultural Adaptation
Hechanova-Alampay et al. (2002)	Domestic and international student sojourners in the USA	Various	United States	Sociocultural difficulty decreased over time.	Social support correlated positively with adjustment Interactions with host nationals associated with greater adjustment at T3.
Hirai et al. (2015)	Undergraduate and graduate students in their first semester	Various	United States	Sociocultural adjustment difficulties decreased over time. Psychological symptoms decreased over time. High stable, moderate stable, and low decreasing distress trajectories emerged.	Social connectedness with Americans predicted sociocultural adjustment. -
Jasinskaja-Lahti (2008)	Long-term immigrants	Former Soviet Union	Finland	Sociocultural adaptation improved over time.	-
Ward & Kennedy (1999)	Sojourning international students	Various Asian countries and New Zealand	Various	Sociocultural adaptation problems decrease over time.	-
Ward et al. (1998)	International higher learning students	Japan	New Zealand	Social difficulty decreases over time.	-

The current research contributes to the existing literature through analysis of the trajectories of the predictors of sociocultural adaptation, and the relationships between these predictors. Analysis of predictors has not been addressed sufficiently in previous research, despite the potential for various predictors to have differing trajectories over the course of adaptation. Furthermore, the review of longitudinal literature found studies that were only concerned with adaptation into Western countries by groups sourced mainly from Asia, Europe, and New Zealand. Through the use of a unique population of Brazilian high school students, the current research provides an additional perspective to the longitudinal study of adaptation, as to our knowledge no research focuses on a group that originates from South America.

Research Context

Brazilians in New Zealand. Migration to New Zealand is substantive and increasing; the latest census showed that 25.3% of New Zealand's population were born overseas (Statistics New Zealand, 2013b). International students make a large and important contribution to New Zealand society. Arriving international students are not only culturally important, but they are also lucrative from an economic perspective. In 2014, international university students generated \$901 million of revenue to New Zealand economy, and international secondary school students generated \$310 million of revenue to New Zealand economy (Ministry of Education, 2014). This contribution makes them a portion of the New Zealand population whose experiences are worth studying in an effort to improve the adaptation of this group and maintain this valuable source of culture and economic growth.

Several countries provide large sources of immigrants and sojourners, with the proportion of many inbound groups increasing over time. Statistics New Zealand (2013a) reports that the Brazilian population within New Zealand increased by 94.7% between 2006 and 2013. Additionally, the number of Brazilian international students in New Zealand

increased by 17% between 2013 and 2014 (Education New Zealand, 2014). Brazil is the sixth largest source of international secondary school students, as well as the largest source from South America (Education New Zealand, 2014). With enrolment levels steadily increasing since 2006, Brazil has been identified as an important market for New Zealand's private education providers (Ministry of Education, 2011). Such a stark increase in the Brazilian population of New Zealand, with specific emphasis on the increased student population, is why international student sojourners are the population analysed in the current research.

Moving between two culturally distinct countries such as Brazil and New Zealand requires sojourners to bridge the large gap in cultural and social norms. Therefore understanding the cultural differences between the two nations included in this study, Brazil and New Zealand, is imperative in order to gain insight into why and how adaptation issues may occur in sojourning populations from one culture to the other. As noted above, an important component when looking at cultural differences is the concept of cultural distance. The dimensions of cultural variability proposed by Hofstede (2001) can be used to compare Brazil and New Zealand in terms of cultural distance (e.g. Milfont, 2009). Brazil scores close to the top anchor on the measure of power distance and very low on the measure of individualism, this indicates that Brazilians have a naturally collectivistic and interdependent society, with an accepted hierarchy prevalent within the culture. New Zealand, in contrast, scores very highly in individualism and very low on power distance, which reflects a more independent society with less formal hierarchy (Hofstede, 2001).

Through the comparison of these dimensions, clear differences surface between the cultural workings and cultural displays present in Brazil and New Zealand. On occasions where members of individualistic and collectivistic cultures meet, each brings different social attitudes, moral values and behavioural norms (Ward et al., 2005). These circumstances can create conflict and uncertainty for both the traveller and the receiving society. The differences

between Brazil and New Zealand may help to understand potential difficulties that immigrants and sojourners often experience when crossing between these two cultures by exposing areas that would require significant cultural learning and adaptation.

‘Win the World Program’. The Brazilian students analysed in the present thesis were a unique sample of youths from low SES backgrounds who had little travel experience, and took part in the ‘Win the World Program’ run by the government of the state of Pernambuco in Brazil. The Pernambuco state is located in the northeast region of the country, with Recife as its capital. The programme was an effort to foster tourism, and it was sparked by the 2014 FIFA World Cup and the 2016 Summer Olympics held in Brazil. The state government sponsored students from low SES backgrounds who were academically successful at public high schools to study English and Spanish abroad. Because of this, to develop their English language skills, more than 200 students spent a period of six months in New Zealand during 2014.

The chosen population of the current research will contribute significantly to the body of literature, not only because it focuses on cultures outside of the narrow range of countries studied in previous literature (see Table 1), but also because it uses the unique and under researched population of low SES youths. This is important, as it is a population where none had previously travelled abroad and the majority had not travelled outside of their own hometown. Youths from low SES families in such an adaptive situation are therefore a unique group for research.

The Current Research

Given the increase in international students to New Zealand from Brazil in recent years, understanding the experiences of these sojourning students and the difficulties they face in the adaptation process could greatly improve their experiences. This could be achieved through assistance in the programme’s ability to aid inbound students, as well as by

informing host nationals of appropriate ways to welcome students and immigrants alike. By specifically focusing on the accounts of Brazilian students, this thesis aims to investigate how the experience of adaptation occurs over time and what issues the students faced during their experience in New Zealand. This knowledge will help foster a healthy experience that uniquely focuses on the issues of crossing vast cultural distances in an educational setting. As well as direct benefits for the understanding of the receiving society and the creation of important aid programmes, the findings of this research will likely be transferable to other groups of sojourning individuals beyond the specific context described, as well as the immigration sector as a whole.

The current longitudinal study followed 279 Brazilian high school students across their six-month sojourn to New Zealand with three measurement points, each separated by 1-2 months. This thesis reports two studies undertaken using this sample using a mixed-methods approach. Study 1 used quantitative data for longitudinal analysis of the process of adaptation, the issues experienced by students, and the changes in certain aspects of adaptation over time. Sophisticated statistical techniques for the analysis of longitudinal data were used to examine the adaptation trajectories of the students, including latent growth modelling, cross-lagged panel modelling, and longitudinal mediation. Study 2 analysed responses to interview questions using the qualitative method of thematic analysis to provide a more in-depth examination of the experiences of Brazilian high school students. The qualitative analysis was also used to inform and expand the quantitative findings, which are theoretically integrated in the general discussion of the thesis.

Chapter 2: Study 1

Introduction

In spite of the large body of literature that surrounds sociocultural adaptation, and adaptation more generally, most available research relies on cross-sectional data and therefore presents only correlational data and lacks the ability to examine changes that can occur in an individual over time. Study 1 of the current research addresses this frequent oversight through the use of longitudinal statistical methods to analyse the trajectories of several components of adaptation, which allows for more thorough investigation of causation.

In particular, Study 1 focuses on the longitudinal change in ratings of several components of sociocultural adaptation in a group of sojourning Brazilian students over their six-month stay in New Zealand. This is in an effort to examine the changes that occur over time in components such as language progress, interactions with host nationals, and culture shock, as well as the potential interactions of these components and their effects on each other.

Previous research has allowed for the formation of four clear hypotheses.

Hypotheses

H1: Ratings of interactions with New Zealanders, as well as English progress, will increase over time.

The first hypothesis reflects findings of the previous literature outlined in Chapter 1 and states that interaction with New Zealanders, as well as ratings of English progress, will increase over time. This should follow results presented in learning frameworks that show an increase in cultural learning over time in areas such as language and ability to interact.

H2: Self-reported levels of participants' experiences of culture shock will decrease over time.

The second hypothesis draws from studies that refute the presence of an initial euphoria that is seen in the U-curve adaptation model. We predict that levels of culture shock and the associated difficulties will decrease over the measured time-points.

H3: English progress and interactions with New Zealanders will be related across time.

Regarding the temporal associations between the discussed variables, the third hypothesis predicts that a relationship will be found between language progress and interactions with New Zealanders across time. This is reflected in many previous studies that provide support for links between these two aspects of sociocultural adaptation, and seeks to explore this relationship across a longitudinal framework.

H4: English progress and interactions with New Zealanders will reduce culture shock over time.

The final hypothesis also relates to temporal associations, and predicts that language progress and interactions with New Zealanders will decrease ratings of culture shock over time. This hypothesis is supported by previous research, which links greater ratings of language proficiency and interaction with host nationals to lower levels of culture shock.

Method

Design

Study 1 was longitudinal and relied on results taken across three time-points (Time: T1, T2, T3). All participants were contacted via phone call over a period of 4-5 months. The time waves were placed throughout students' sojourns to New Zealand. The first phone interview took place soon after each student's arrival in New Zealand, with the second following part-way through their trip. The final phone interview took place shortly before their return home to Brazil.

This study was granted ethical approval by the School of Psychology Human Ethics

Committee under delegated authority of Victoria University of Wellington's Human Ethics Committee (approved: 12th February, 2013; Application number: RM019664).

Participants

Participants were sourced in conjunction with the 'Win the World Program' run by the government of the Pernambuco state in Brazil. The sojourners' details were used to contact them at the time-points to conduct the optional phone interviews. 279 participants completed at least one wave of the study. This included 93 participants, who took part in the first intake of the 'Win the World Program' that occurred in early 2014, and 186 from the second intake, which occurred in late 2014. Attrition rates from both groups were low, with a 2.2% ($N = 2$) attrition in the earlier collection, and a 5.4% ($N = 10$) attrition in the later collection.

A non-significant Little's MCAR test, $\chi^2(45, N = 274) = 56.74, p = .11$, revealed that the data was missing completely at random. Following from this to allow for this missing data, a mixed approach was used, whereby, if the participant had completed only one time wave, they were excluded from the study. In cases where the participant completed two of the three waves in the study ($N = 5$) the remaining wave was imputed on SPSS using Expectation Maximisation method with 50 iterations. This method of dealing with missing data resulted in a dataset with 274 participants once both participant groups were combined.

Measure and Procedure

For each interview, the sojourners were contacted via telephone. All interviews were conducted by a PhD student from Brazil living in New Zealand. This interviewer was the only researcher who had any contact with the students. The interviews were conducted in Portuguese and included an introduction which detailed the reasons for the phone call, general adaptation questions, specific adaptation questions, and culture shock questions followed by closing comments (see Appendix A for the original interview schedule used). In

some cases questions were elaborated on by the participants and all data, both quantitative and qualitative, was recorded by the interviewer in an excel spreadsheet.

The interviews at each time-point (T1, T2 and T3) followed the same procedure to allow for comparability and longitudinal analysis. Participants who could not be contacted via phone were contacted by other means, including email and social media, and where this was not possible their data was left incomplete.

Participants were interviewed in two groups across 2014. Table 2 shows the date range of the time-points for each group.

Table 2
Distribution of Time Waves Across Groups

	T1	T2	T3
Group 1	10 th Mar – 26 th Mar	28 th Apr – 4 th May	19 th Jun – 26 th June
Group 2	25 th Aug – 5 th Sept	6 th Oct – 17 th Oct	24 th Nov – 8 th Dec

Seven adaptation components were explored individually using seven single-item questions. These seven questions were asked to participants who responded verbally on 5-point Likert scales to record quantitative information on “how things were going” for the students. Four questions focused on specific adaptation and asked about students’ experiences so far with four different factors.

Host family. Students were asked “how things were going” with their host family to measure their host family perception, measured on a 5-point Likert scale anchored by 1 (*very negative*), 3 (*neutral*), and 5 (*very positive*).

English progress. Students were asked “how things were going” with learning the English language, to indicate their English progress. This was measured on the same negative-positive scale.

NZ interaction. Students were asked “how things were going” with interacting with Zealanders. This was measured on the same negative-positive scale.

Missing home. Students were asked “how things were going” with their levels of missing home, measured on a 5-point Likert scale anchored by 1 (*not at all*), 3 (*neutral*), and 5 (*a lot*). Specific emphasis was placed on aspects of family, friends, and food.

The students were recited a sentence-long introduction by the interviewer describing “culture shock” (i.e. “*People talk about “culture shock”, namely when one visits a new place being stressed by the differences and newness of it*”). Three questions then examined three different domains of culture shock independently: level of culture shock, ratings of overall experience, and expectation before the sojourn. All domains were measured on 5-point Likert scales.

Culture shock. Students were asked how much culture shock they thought they were experiencing, measured on a 5-point Likert scale anchored by 1 (*not at all*), 3 (*neutral*), and 5 (*a lot*).

Overall experience. Students were asked overall, how they were feeling about their experience, measured on a 5-point Likert scale anchored by 1 (*very negative*), 3 (*neutral*), and 5 (*very positive*).

Expectation. Students were asked how they had expected their experience would be while they were in Brazil measured on the same negative-positive scale.

Analytical Strategies

Latent growth modelling. Latent Growth Modelling (LGM) is a strategy to analyse longitudinal data that focuses on both the initial score levels of the variables and the rate of change (if any) over time. The initial level of variables is recognised as the intercept value. Two aspects of intercept are looked at in LGM. The first is the intercept mean, and a significant intercept mean indicates that the initial level of the variable is significantly different from zero. The second aspect is intercept variance and shows the range of individual

differences around the average initial level of the measured variable (Assaker, Vinzi, & O'Connor, 2011).

LGM also concerns the rate of change, shown through the slope or change across time. Two aspect of slope are important, the first is the slope mean, which represents the estimated linear rate of change in the measured variable over time. A significant positive mean indicates a trend of positive rate of change and a significant average increase in the values over time, while a significant negative mean indicates a negative rate of change and a significant average decrease over time. The second important aspect of slope is the variance. The variance of slope provides information about the range of individual differences in the rate of change in the measurements of variables over time (Assaker, et al., 2011). A significant slope variance suggests variability across respondents in the rate of change over time (slope).

The final component looked at in LGM is the covariance between the intercept and the slope of a variable. Significant and positive covariance between the intercept and slope factors indicates a positive relationship between initial reported levels and change over time, while significant and negative covariance indicates the inverse. Therefore, those who report higher initial ratings of a variable have a greater increase over time when a positive covariance is observed, and where a negative covariance is observed, lower initial ratings results in a less change over time.

LGM is a useful method of analysis as it describes participants' developmental trajectories and also captures individual differences in the trajectories over time (Duncan & Duncan, 2004; Duncan, Duncan, & Stoolmiller, 1994). This is important because alternate methods that study change, such as ANOVA and multiple regression, analyse only mean changes and consider all differences between participants as error variance (Duncan & Duncan, 2004). LGM combines analysis of mean changes with analysis of within-subject

covariance matrix, which makes it more versatile as it can focus on individual differences (Voelkle, 2007).

LGM assumes that change for individuals is systematically related to the passage of time (Duncan & Duncan, 2004). Whilst at times this makes LGM an inappropriate analytical choice, previous research supports the notion that sociocultural adaptation and other measured variables in the present research are involved in a process that occurs and changes over time (Searle & Ward, 1990) it can be assumed that the approach is appropriate for the current research.

LGMs can be ‘temperamental’ when it comes to model fit. Barrett (2007) outlined that sample size and author interpretation have a large effect on determining whether model fit is deemed appropriate. Because of this, several indices of model fit are often inappropriate for the research and model in question. When poor model fit occurs it is possible to adjust the model with ad hoc tests, however a more appropriate approach may be to use a different analytical strategy to analyse the data (Wood, Steinley, & Jackson, 2015).

Repeated measures multivariate analysis of variance (MANOVA). Repeated measures MANOVA is an alternate means of analysing change across time used in the current study to compliment the use of LGM. Because of the longitudinal nature of the current dataset, repeated measures is a logical design to analyse changes, as subjects were tested on the same variable across three different time-points. With the main interest in the change in means over time, the MANOVA approach can be preferable to any structural equation modelling, and may be a less controversial approach in the study of change (Wood et al., 2015).

Cross-lagged panel modelling. Cross-lagged models are used when two or more variables have been measured on two or more occasions (Hamaker, Kuiper & Grasman, 2015). Results provided by such a method include a complete correlation matrix,

autocorrelations, synchronous correlations, and cross-lagged correlations, while controlling for the stability of each variable (Corrigan et al., 1994). Cross-lagged panel modelling allows for the inference of residual change. This is because through the comparison of the cross-lagged effects of one variable at an early time-point on another variable at a later time-point, residual change can be inferred to be changing the later variable. Because temporally later events cannot have causal effects on events that precede them, the design is a suitable way to infer potential indicators of causal relations (Finkel, 1995; Voelkle et al., 2012).

Longitudinal mediation. Mediation analyses in this case are used to expand upon the cross-lagged effects of the data. Mediation seeks to identify the mechanism through which an observed relationship occurs. Longitudinal mediation can provide greater insight into the data, and is more valuable than cross-sectional mediation as time has to elapse for one variable to have an effect on another (Chua, Milfont & Jose, 2015; Cole & Maxwell, 2003).

Model Fit

The goodness of fit indicators used to assess the model fit were the chi-square (χ^2); normed chi-square (χ^2/df ; Wheaton, Muthen, Alwin, & Summers, 1977), comparative fit index (CFI; Bentler, 1990), the root mean square error of approximation (RMSEA; Steiger, 1990), and the standardized root mean residual (SRMR; Bentler, 1995). Following these criteria, an acceptable model should present $\chi^2/df \leq 5.00$ (Wheaton et al., 1977); $CFI \geq .95$ (Hu & Bentler, 1999); $RMSEA \leq 0.07$ (Steiger, 1990); $SRMR \leq .08$ (Hu & Bentler, 1999).

In an analysis of LGM model fit, Yu (2002) analysed various known true and misspecified models with varied sample sizes and numbers of time-points and concluded that for models with a sample size over 250 and more than five time-points $CFI \geq .95$, $RMSEA \leq .06$ and $SRMR \leq .07$ were suitable criteria to indicate good models. He noted however, that models with smaller samples sizes, as well as models with fewer time-points, were found to over-reject models that were known to be true when the same thresholds were used.

Furthermore, Barrett (2007) outlined two schools of thought in regards to the use of model fit in structural equation modelling (SEM). The first school of thought is based around null hypothesis significance testing (NHST) and uses model fit tests to judge whether residuals are greater than would be expected by chance alone. It is concerned primarily with the evaluation of the overall discrepancy in covariances. The second school of thought concerns itself less with binary test results, and more with assessments that take into account predictive accuracy, parsimony, and theoretical meaningfulness. Barrett (2007) states that it is warranted to avoid the use of tests of statistical fit when we adhere to an assessment approach that grounds the research in a theory or real-world substantive way that replicates through a cross-validation strategy. Both of the schools of thought are valid as they address markedly different questions. Due to the nature of the present research, the overarching importance is on theoretical meaningfulness to answer our research questions. Because of this, we adhere to the second school of thought in regards to the use of model fit statistics. In an effort to provide evidence for the theoretical meaningfulness of the data, qualitative analyses of the dataset are undertaken in Study 2.

Results

One-Sample *t*-Tests

As initial analyses we conducted one-sampled *t*-tests in SPSS for the seven prominent components of sociocultural adaptation in the current dataset in order to establish whether mean ratings at T1 differed significantly from the mid-point of the 5-point scale. Table 3 presents the results of these *t*-tests, and reveals that all variables were significantly different from the scale mid-point, except for the variable of missing home, which was not significantly different from the mid-point. This indicates that for all measures, except that of missing home, results at T1 tended toward either a more positive or negative end of the scale, and did not settle at the mid-point or ‘neutral’ response.

Table 3
One-Sample t-Tests of the Seven Variables

	<i>t</i>	df	<i>p</i>
Host Family	47.14	273	<.001
English Progress	17.43	273	<.001
NZ Interaction	14.92	273	<.001
Missing Home	1.48	273	.14
Culture Shock	-21.83	273	<.001
Overall Feeling	89.83	273	<.001
Expectation	17.93	273	<.001

Latent Growth Modelling

To test H1 and H2, we ran LGMs in IBM SPSS Amos version 23 with our longitudinal data. Table 4 presents the model fit for each of the variables considered, and shows that model fit was only acceptable for three of the seven variables: host family, interaction with New Zealanders, and missing home. Some caution is warranted in the interpretation of results that show across-time change in the remaining four variables, given their poor model fit, in line with findings by Yu (2002). Following the second school of thought outlined by Barrett (2007), and the known issues with model fit indices when the focus is on theoretical meaningfulness, we opt to continue with the interpretation of the findings from the model with recommendations for replication in the future.

Table 4

Model Fit Data for All Variables in Independent LGM

	χ^2	df	<i>p</i>	χ^2/df	CFI	RMSEA	LO 90	HI 90	SRMR
Host Family	3.82	3	.28	1.27	.99	.03	.00	.11	.02
English Progress	25.95	3	<.001	8.65	.84	.17	.11	.23	.05
NZ Interaction	7.92	3	.05	2.64	.98	.08	.01	.15	.02
Missing Home	11.53	3	.01	3.84	.95	.10	.05	.17	.04
Culture Shock	42.18	3	<.001	14.06	.64	.22	.16	.28	.09
Overall Feeling	31.27	3	<.001	10.42	.76	.19	.13	.25	.06
Expectation	15.8	3	<.001	5.27	.94	.13	.07	.19	.04

Table 5 presents the results of the particular parameters of the LGM. The intercept from the LGMs show the initial level of the measures. The intercept means in the present study were significantly different from zero for all seven variables (all measured on 5-point scales) and represent the predicted initial mean level of how things were going with: the host family (4.71); English progress (3.58); interaction with New Zealanders (3.69); missing home (3.01); as well as how much culture shock they thought they were experiencing (1.98); overall how they were feeling about their experience (4.87); and how they had expected it to be in Brazil (4.08).

Table 5
LGM Output Results for All Variables

	Intercept		Slope		Intercept X Slope	
	Mean	Variance	Mean	Variance	COR	COV
Host Family	4.71***	.27***	-.01	.05**	-.75	-.09*
English Progress	3.58***	.51***	.28***	.02	-.75	-.08
NZ Interaction	3.70***	.56***	.13***	.00	-.53	-.03
Missing Home	3.01***	.73**	.06	.08	-.40	-.09
Culture Shock	1.98***	.80***	-.23***	.07*	-.90	-.20***
Overall Feeling	4.87***	.10***	.00	.02***	-.67	-.03*
Expectation	4.08***	.36*	-.02	.01	.33	.02

Notes. COR = correlation, COV = covariance. * $p < .05$, ** $p < .01$, *** $p < .001$

The significant variance in all of the intercepts indicates that individual respondents had differing initial levels of the variables and that the sample was not homogenous. This can be interpreted to show that there were significant individual differences between participants in the study, and means that for all variables, participants had a range of start points at T1.

Overall, the mean intercepts show that in general students felt very positive about their experience in New Zealand, closely followed by positive perceptions about their host family. These results also indicate that students have positive feelings for their interactions with New Zealanders and English progress. Perceptions of missing home were only slightly above the mid-point in the scale, indicating that things were going slightly above average in this regard. Students also reported levels of culture shock that were slightly below the mid-

point, indicating that they felt they were experiencing below average amounts of culture shock.

The slope means represent the estimated linear rate of change in the measured variable over time, and three slope means were significant: English progress, New Zealand interaction, and culture shock. A significant positive mean, as seen for both English progress and interaction with New Zealanders, indicates a trend of positive rate of change and a significant average increase in the values over time. This indicates that participants' ratings of English progress and interactions with New Zealanders increased across the three time-points at a steady rate. Figures 1 and 2 show the across-time increase in English progress and interaction with New Zealanders, respectively. In contrast, there was a significant negative slope mean for the variable of culture shock, this indicates a negative rate of change and a significant average decrease over time. This indicates that on average, participants' experiences of culture shock decreased across the three time-points, as depicted in Figure 3. Therefore, as a whole, the sample is characterised by increased ratings of English progress and interactions with New Zealanders, and decreased levels of culture shock, over the three time-points in the study. There was no significant mean increase or decrease in the levels of the other four variables during the measurement period, which suggests that levels of these variables remained largely stable over time.

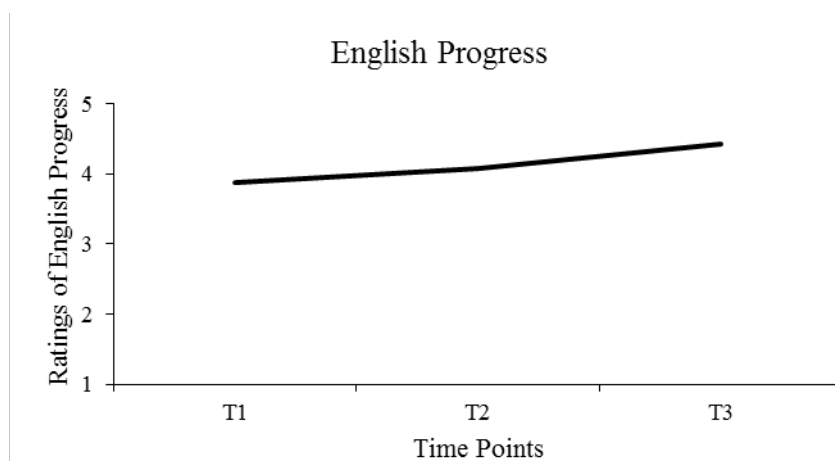


Figure 1. Perceived ratings of English progress by students over three time-points.

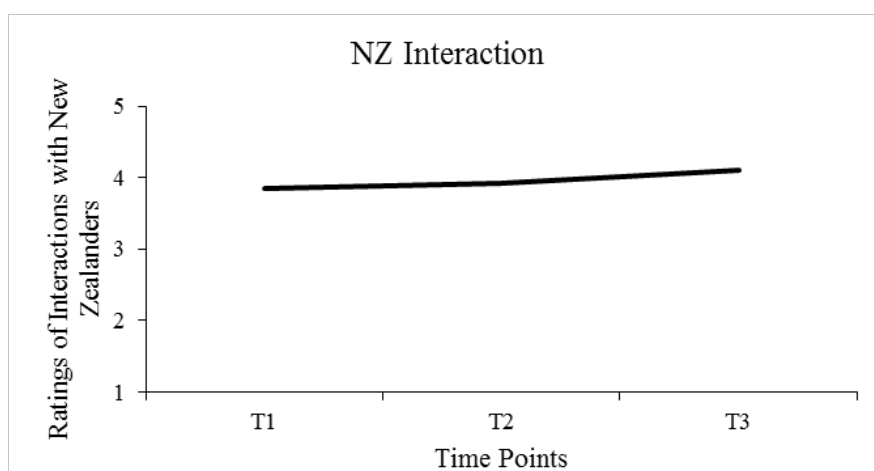


Figure 2. Perceived ratings of interactions with New Zealanders by students over three time-points.

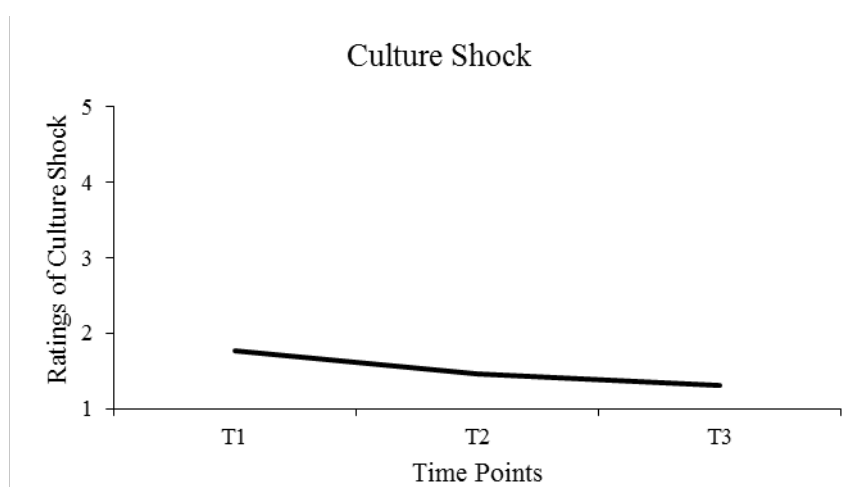


Figure 3. Perceived ratings of culture shock by students across three time-points.

Among the three variables that showed change across time, only the slope variance for culture shock was significant. The significant slope variance suggests variability and individual differences across respondents in the rate of change over time (slope) for culture shock. This means that while the average scores of the participants showed a significant decrease over time, each participant may vary in the extent to which their ratings of how much culture shock they experienced changed over time.

These findings indicate that, at the group level, the trend was a significant decline (negative slope) in culture shock from T1 to T3, with significant variance among respondents in their initial ratings of culture shock at T1 (intercept), as well as in their trajectory (slope) from T1 to T3.

The significant and negative covariance between the intercept and slope for host family, culture shock, and overall feeling indicates that there was an inverse relationship between initial reported levels and change over time. Therefore, individuals who showed initially high ratings in these variables showed a lower rate of change across the time, compared to those with lower initial ratings.

Repeated Measures MANOVA

After the LGM produced poor model fit across several variables, we conducted repeated measures MANOVA to confirm the significant findings without trusting the model fit statistics present in LGM (Wood et al., 2015).

Using results of the LGM as a starting point, the variables that yielded significant slopes (English progress, interactions with New Zealanders, and culture shock) were put into a repeated measures MANOVA in SPSS. Time was used as the within-subjects factor on the three dependent factors of English progress, interactions with New Zealanders, and culture shock. A significant multivariate main effect was found for time, Wilks' $\lambda = .59$, $F(6, 268) = 31.19$, $p < .001$, $\eta^2 = .41$, this indicates that there was a significant change over time across

the three variables. The large partial eta squared value also indicates that a large proportion of variance is explained by time.

Three significant univariate results were obtained for the main effect of time: English progress $F(2, 546) = 57.54, p < .001, \eta^2 = .17$; interaction with New Zealanders $F(2, 546) = 11.67, p < .001, \eta^2 = .04$; culture shock $F(2, 546) = 35.98, p < .001, \eta^2 = .12$. These significant multivariate and univariate results indicates that for all three of the variables, there was significant change across time. These results support the significant slopes reported in the LGMs. We found that independently of one another, time had a main effect on English progress, interactions with New Zealanders, and culture shock.

The repeated measures MANOVA also provided more support for linear change of all three of the variables over time when looking at within-subjects contrasts. English progress $F(1, 273) = 105.38, p < .001, \eta^2 = .28$; interaction with New Zealanders $F(1, 374), p < .001, \eta^2 = .07$; culture shock $F(1, 273) = 60.09, p < .001, \eta^2 = .18$. Therefore, in the present study participants' ratings of English progress and interaction with New Zealanders, as well as their ratings of how much culture shock they were experiencing, changed significantly in a linear formation across the three time-points.

A separate repeated measures MANOVA was conducted with the remaining four variables that did not produce significant slope in the output of the LGMs: host family, missing home, overall feeling, and expectation. These results also conformed with those of the LGMs as no significant multivariate main effect of time was found, Wilks' $\lambda = .966, F(8, 266) = 1.18, p = .31, \eta^2 = .03$, this indicates that there was no significant change over time in any direction for the variables. In concordance with this, no univariate effects were found for any of the four variables, which shows that independently each variable did not significantly vary across time. This suggests that in the current sample, the mean participant ratings of host

family, missing home, the experience overall, and how they expected it to be in Brazil remained stable across the three time-points of the study.

Overall, the findings from the LGMs and repeated measures MANOVAs provided support for H1 and H2. Both analyses converged in their findings and depicted linear increase in ratings of English progress and interactions with host nationals over time (H1), as well as linear decrease in culture shock over time (H2).

Cross-Lagged Analysis

We then focused on the three variables that show change across time to test the temporal associations predicted in H3 and H4 and examined whether the variables of English progress, interactions with New Zealanders, and culture shock influenced each other over time. More specifically, a cross-lagged panel model between English progress, culture shock and interaction with New Zealanders was tested.

We report the full model in Appendix B and focus on the cross-lagged associations. Results showed two significant pathways of interest. First, perceived English progress at T1 predicted significant residualized change in interactions with New Zealanders at T2 ($B = .146, SE = .058, p = .01$). Second, interactions with New Zealanders at T2 predicted significant residualized change in ratings of English progress at T3 ($B = .166, SE = .045, p < .001$). In conjunction we found that upon arrival in New Zealand, students who reported higher English progress subsequently had higher ratings of their interactions with New Zealanders at the mid-point. However, as more time passes it is the higher ratings of interactions with New Zealanders that allowed for higher ratings of English progress at the final time-point.

Culture shock produced no significant pathways in the initial three-variable cross-lagged panel model, as shown in Appendix B. In order to create a more parsimonious model, and check whether cross-lagged effect size changed with the removal of the stabilised

variable (i.e. culture shock), we ran a two-variable cross-lagged model with the variables of interaction with New Zealanders and English progress. Covariances between error terms were included in the model run, however they are not presented in Figure 4 for ease of presentation.

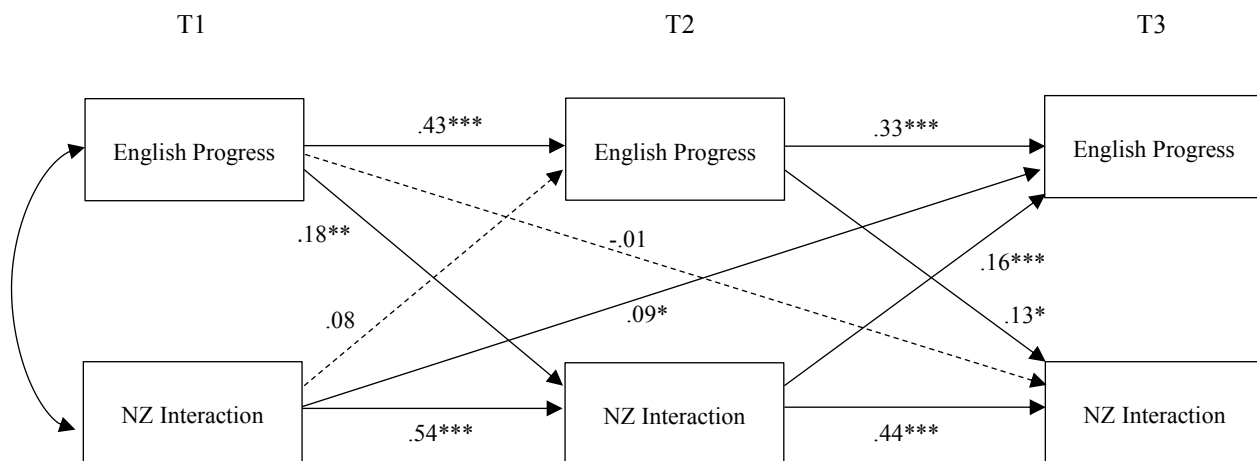


Figure 4. Two variable cross-lagged panel model using English progress and interaction with New Zealanders across the three time-points.

Note. * $p < .05$. ** $p < .01$. *** $p < .001$.

The cross-lagged panel model (Figure 4) provided non-satisfactory fit to the data, $\chi^2(3, 274) = 23.01, p < .001, \chi^2/df = 7.67, CFI = .95, RMSEA = .16, SRMR = 0.05$. The model fit is below the recommended threshold for most indices. Because our model is based on theoretical meaningfulness, we adhere to the school of thought outlined by Barrett (2007) that bases the use of models on real world and theory driven basis. We do this through the use of qualitative results from Study 2 to support theoretical claims made from this model. The presented model is not concerned with the explanation of residuals or covariance in a way that many structural equation models are, and therefore we can proceed with meaningful analysis of the paths despite the model fit criterion.

We first focused on the stability of the two variables across the three time-points. For English progress, the stability coefficients were moderate across all time-points, with similar

values found between T1 and T2 ($B = .43$, $SE = .06$, $p < .001$) and between T2 and T3 ($B = .33$, $SE = .04$, $p < .001$). Interaction with New Zealanders also showed significant stability with similar stability coefficients found between T1 and T2 ($B = .54$, $SE = .06$, $p < .001$) and T2 and T3 ($B = .43$, $SE = .05$, $p < .001$). The stability coefficients indicate that overall, individuals' perception of English progress and interaction with New Zealanders were relatively stable over time, suggesting that change was indeed occurring over time.

We then examined the cross-lagged associations. Results showed four significant pathways of interest. First, perceived English progress at T1 predicted significant residualized change in ratings of interactions with New Zealanders at T2 ($B = .18$, $SE = .06$, $p = .01$). Second, interactions with New Zealanders at T2 predicted significant residualized change in ratings of English progress at T3 ($B = .16$, $SE = .04$, $p < .001$). The third significant pathway was that perceived English progress at T2 predicted significant residual change in ratings of interactions with New Zealanders at T3 ($B = .13$, $SE = .06$, $p = .03$). The final significant pathway through this method indicated that interaction with New Zealanders at T1 predicted significant residual change in ratings of English progress at T3 ($B = .09$, $SE = .04$, $p = .04$).

Considered together we found that upon arrival in New Zealand, students who reported higher ratings in English progress subsequently had higher ratings of their interactions with New Zealanders at the mid-point. However, as more time passed it is the higher ratings of interactions with New Zealanders that allowed for higher ratings of English progress at the final time-point. A reciprocal relationship is found between English progress and interaction with New Zealanders at times T2 and T3, this indicates that while higher ratings of interactions with New Zealanders at the mid-point resulted in higher ratings of English progress at the final point, so too did higher ratings of English progress at the mid-point indicate higher ratings of interactions with New Zealanders at the final point. This means that the two skills feed into one another between the second and third time-points, and

enhance students' ratings of each. Finally, higher ratings of interaction with New Zealanders at the initial time-point predicted higher ratings of English progress at the final time-point and indicated that early interactions with New Zealanders can have long term effects on sojourners English progress.

Longitudinal Mediation

The results in Figure 4 suggest that interactions with New Zealanders may mediate the longitudinal increase in English progress across time-points. To test this more formally, a longitudinal mediation was run within the larger model to examine whether students' ratings of interactions with New Zealanders at T2 mediated how students' rated their English progress at T1 and T3 (Figure 5).

The longitudinal mediation was run through the implementation of a user-defined estimand on the cross-lagged model depicted in Figure 4, which modelled the indirect effect using paths A and B. Bootstrapping was used with 2000 iterations and a 95% confidence interval.

Results indicated that the indirect effect from English progress at T1 and T3 via interactions with New Zealanders at T2 was significant: with an indirect effect of .03 ($A*B = .03$, $SE = .01$, 95% CI [.01 , .06], $p = .01$). This suggests that interactions with New Zealanders help explain the observed increase in students' ratings regarding English progress.

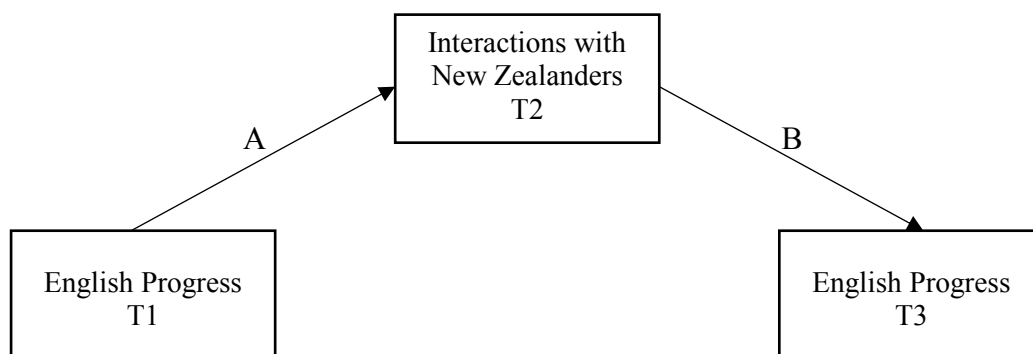


Figure 5. Mediation model with interaction with New Zealanders at T2 mediating change in English progress.

Discussion

Study 1 investigated the change in factors of adaptation over three time-points. The aim was to identify the changes that occur in the experiences of adaptation in a sample of Brazilian students, and whether the chosen components of adaptation had an effect on each other as time passed in their sojourning experience.

Linear Changes

The findings supported H1 and H2, students' ratings of their interactions with New Zealanders showed a linear increase across the three measurement points. This improvement is in line with predictions of the study and previous research that has showed adaptation improves over time and was positively correlated to interactions with the host nationals (Hechanova-Alampay et al., 2002). In addition, ratings of English progress also increased linearly from T1 to T3. This reflects the findings of Chiswick et al. (2004) who found that English language proficiency regarding reading, writing, and speaking improved over time. Finally, student ratings of culture shock showed a linear decrease throughout the sojourn. This is consistent with previous research, such as that by Chapdelaine and Alexitch (2004), which outlined that culture shock decreases with increased cultural knowledge and experience.

Although existing literature lead us to focus on the three variables of interactions with New Zealanders, English progress, and culture shock, it is important to note that we found no linear changes in the other variables explored in the interview questions. For some variables, such as that of host family, this could be due to a ceiling effect whereby ratings of host family were so high initially that it left little room for linear increases to occur. Further research would benefit from investigating the possibility of ceiling effects in adaptation variables further.

Temporal Associations

The hypothesised relationship between ratings of interactions with New Zealanders and English progress over time (H3) existed and was supported through two interesting mechanisms. First, students who reported higher ratings in English progress at the first instance, subsequently had higher ratings of their interactions with New Zealanders at the mid-point. Second, as more time passed it was the higher ratings of their interactions with New Zealanders that allowed for higher ratings of English progress at the final time-point. This supports the implications of previous research that learning the host language is an essential part of integration, as well as that interactions with members of the host country can facilitate better learning of cultural skills such as language (e.g. Church, 1982; Hirai et al., 2015; Oberg, 1960; Swami et al., 2010).

One finding of the current research was that, from T2 to T3, not only did interactions with New Zealanders at T2 allow for higher ratings of English progress at T3, but English progress at T2 also allowed for higher ratings of interaction with New Zealanders at T3. These results are consistent with both Gullahorn and Gullahorn (1966) and Clément et al. (2001), who proposed that the relationship between English language ability and host culture interaction was most likely a reciprocal relationship. The authors stated that greater language skills led to an increased participation and interaction with the culture, which in turn leads back to improved language ability through practice. This proposal was tested empirically in the current research, showing that not only did language progress influence students' interactions with the host nationals, but that the interaction with host nationals also influenced their ratings of language progress.

Gullahorn and Gullahorn's (1966) argument that host language and host interaction influence each other across an experience is also supported through the use of longitudinal mediation in the current study. Longitudinal mediation is a rare technique and the current

findings show that an increase in ratings of English progress from the initial to the final measurement point was facilitated by interactions with New Zealanders at the mid-point. These findings suggest that interactions with New Zealanders help to explain the increase in ratings of English progress over time.

Overall, the present results suggest that regarding the sociocultural adaptation of this group of Brazilian students in New Zealand, English progress and interactions with New Zealanders are very important components. The increase over time of these variables, as well as their interactions with each other, both cross-lagged and mediating, indicate that they are two prominent components for adapting into a new and different host culture.

H4 was that greater ratings of interactions with New Zealanders and English progress would reduce culture shock, and was not supported in the current research. The cross-lagged panel model indicated no significant pathways in regards to culture shock and the other two variables. This result indicates that for the current sample of sojourning Brazilian students, interactions with New Zealanders had no effect on the level of culture shock reported by the students. This is contrary to the suggestions of Chapdelaine and Alexitch (2004), that more interactions with host nationals is associated with lower levels of culture shock, as well as the findings of Yeh and Inose (2003), that greater language proficiency is associated with lower levels of culture shock. This association may not have been present in the current research because of an attribute of the specific group and context itself, such as the short duration of the sojourn, or the ages of the sojourning students.

Applications

The results of the current findings provide support for the theoretical distinction that individuals in cross-cultural transition experience the most sociocultural difficulty on entry to the new culture (e.g. Hechanova-Alampay et al., 2002; Hirai et al., 2015; Searle & Ward, 1990; Ward et al., 1998; Ward & Kennedy, 1999). The linear increase in ratings of

interactions with New Zealanders and English progress over the three time-points indicate that lowest ratings occurred at the initial measurement point, and improved from there. Additionally, the decreasing linear trend in ratings of culture shock indicates that at the initial measurement point, on entry to the new cultural setting, students experienced the greatest amount of discomfort and that this was relieved over time. Together these trajectory findings support the finding of previous research that the greatest difficulty is experienced on entry to a new country or culture. The current findings continue to expand research of this nature through the focus on key predictors of sociocultural adaptation instead of sociocultural adaptation as a variable in itself. This is something only a few longitudinal research papers have done to date (Hechanova-Alampay et al., 2002; Hirai et al., 2015), and the analysis of the predictors of the intricate process of adaptation can provide further insight to the mechanisms that cause change in adaptation over time.

Given the growing levels of travel and immigration to New Zealand, and the substantial increase in Brazilian immigrants and sojourners, increasing the knowledge of the processes and struggles these groups face when coming into New Zealand is an important consideration for academics and officials alike. While there are numerous factors that influence successful adaptation into a new culture, interactions with host nationals and English progress are two important and observable components that can be directly focused on through legislation and settlement projects. The findings of the current research in conjunction with previous literature suggest that by facilitating the learning of English early on in immigrant or sojourner experiences, we can improve the interaction newcomers have with host nationals, and strengthen the potential for a natural form of cultural learning and transition to the New Zealand culture. These applications are further discussed in the general discussion (Chapter 4).

Limitations and Strengths

Additional to the worthwhile and interesting implications and applications, are the unique strengths of the current research. A strength of the current study is the unusual populations of Brazilian students from low SES families in the Pernambuco State in Brazil. The use of such a sample group provides untapped insight into the experiences of students who likely would not have had the opportunity to travel to a place like New Zealand without the programme. This allows for an exploration into how this group differs from other groups examined in the pre-existing body of literature. The current findings outline vast similarities between this context and the pre-existing literature, which indicates that there is applicability of this body of literature to the target group of Brazilian students. The second main strength is the use of longitudinal methods to analyse the processes involved in adaptation. Longitudinal statistical methods are under-used in the current literature and through their application in this setting, we are able to contribute to how the adaptation processes across time is understood.

An important limitation to acknowledge in the current research is that the longitudinal data spans only three time-points. In order to test for quadratic effects and non-linear change, four or more time points would have been required. This is potentially limiting as it affects our ability to test the non-linear models that could be present within the context of Brazilian international students in New Zealand, such as the U-curve and other trajectory trends. A second limitation is that the duration of the students' stays in New Zealand was only six months, with all measurement time-points included within the stay, and no measurement before or after. Most previous research has outlined that the most drastic changes occur between six and twelve months, as well as that there are important differences between perceptions pre-departure and after arrival. The consideration of these additional points could alter the appearance of trajectories and results found through the data. The final limitation relates to the measurement's use of only one item to explore each adaptation component in

the research, as this limits the depth of the results. Specifically, the perception and understanding of individuals regarding what is expected when terms such as ‘culture shock’ are used. Although the interview schedule had a short description of culture shock (Appendix A), the concept is open to interpretation and often requires multiple question items to measure the concept accurately. The ambiguous nature of such a term may result in a diversity of interpretations and answers when used as a single question to represent such a broad concept.

Future Research

Replication is an important consideration for future research. With such a unique population, it is important to replicate the process and methods in order to gauge whether the findings replicate across different occasions. Replication of the findings could increase the strength of this study. The poor model fit statistics also indicate that replication is required. The nature of the current research adheres to Barrett’s (2007) second school of thought in regards to model fit, which places emphasis on the importance of theoretical answers to research questions, and because of this it is important to test replicability in an effort to provide more support for the theoretical grounding of the results in the research. In an effort to provide theoretical support for the models used in the current study, qualitative analyses were undertaken in Study 2.

Furthermore, in order to gain a better understanding of change, it would also be beneficial to increase the number of measurement points included in replications of the study. As previously mentioned, three data points allows for analysis of only linear change. Through the inclusion of additional time-points, future researchers could judge whether non-linear trajectories exist. Also, recording data for students over a longer period of time would allow for better assessment of change, as longer sojourns provide more opportunity for adjustment and adaptation. In addition, attempting to replicate the results in other unique populations

could help the argument toward the universality of many of these adaptation experiences and issues. This is because, if similar results are found in other unique populations sojourning to countries such as New Zealand, it provides more evidence that processes such as culture shock, interacting with host society, and learning the host language, are important and change in similar ways throughout sojourns in different contexts. Further considerations for future research will also be discussed in Chapter 4.

Chapter 3: Study 2

Introduction

Study 1 examined the quantitative responses of the students from the phone interviews. The present study, Study 2, adds to that examination through the exploration of students' qualitative responses to open-ended questions.

When compared to quantitative approaches, the use of qualitative methods to analyse the topics of sociocultural adaptation, and adaptation more generally, has been limited. Indeed, few studies have examined these issues from a qualitative standpoint (Brown & Holloway, 2008; Constantine et al., 2005; Ineson, Lyons, & Branston, 2006; Khawaja & Stallman, 2011; Lefdahl-Davis & Perrone-McGovern, 2015; Lewthwaite, 1996; McLachlan & Justice, 2009; Slaten et al., 2016). Notably, these studies have identified similar themes that emerge when sojourners, from and in distinct cultural contexts, openly talk about their cross-cultural experiences.

To illustrate this, in their interviews with international students, specifically Saudi Women in the United States, Lefdahl-Davis and Perrone-McGovern (2015) found that the interview data yielded themes that included acculturative stress, language issues, relationships and support. Consistent with these findings, Khawaja and Stallman (2011) found that the prominent themes in their focus group discussions with Asian international students in Australia included challenges with the English language, studies, social isolation, and culture shock.

McLachlan and Justice (2009) analysed interview responses of international university students from a variety of countries in the United States, and observed that the prominent themes included issues of homesickness and language barriers, as well as the necessary presence of a social support network. Brown and Holloway (2008) also found

homesickness, stress and loneliness to be paramount themes in their ethnographic study of the adjustment of international students in England.

Studying a group of twelve African international students at University in the United States, Constantine et al. (2005) found several negative themes. These themes and subthemes included feelings of discrimination, isolation, and financial concerns. Several positive themes were also identified, such as positive social networks, friends at campus and across the country, and family members at home and abroad. More recently, Slaten et al. (2016) observed themes related to the importance of meaningful personal relationships and group involvement as contributors to a positive experience in their research on Asian international students attending university in the United States. Their work also highlighted the importance of personal growth.

In regards to the specific host cultural context of the current research, Lewthwaite (1996) analysed twelve international students at a New Zealand university. The key issues that arose included the vast differences between host and home country, several learning barriers in relation to teaching and content, language issues, as well as homesickness. Uniquely, the study also asked about student adjustment, with the majority noting that they were well adjusted to New Zealand and happy with their home-life.

Throughout these publications, the need for further use of qualitative methods has grown, exemplified by Haslberger (2005), who noted in his research on expatriate adaptation that qualitative and mixed method approaches are becoming an essential direction that should be followed in adaptation research. In line with these beliefs, the current study applies a qualitative approach to the study of sojourner adaptation.

The Current Study

In conjunction, studies examining qualitative responses regarding the experience of adaptation have highlighted themes pertaining to social support or relationships, language

issues, and acculturative stress. Study 2 examines whether similar themes are found in interviews with Brazilian students about their experience of cross-cultural transition into the New Zealand context. Qualitative literature that has focused on adaptation issues and the experiences of international students has primarily concentrated on students in a university setting. The current study extends past these studies by focusing on the experiences of the same group of sojourning high school students as analysed in Study 1. Looking into a population of Brazilian high school students from low SES families who have received the opportunity to study for a short term abroad, where they may never have had the chance to leave their country before, provides insight into a specific and unique group and their experiences. Qualitative analysis of the responses of such a unique group are not only important for the understanding of their experiences in a new country, but they are also important for the broad literature. In particular, Study 2 seeks to explore the following broad research question: “What are the experiences of Brazilian high school students sojourning in a new culture?” and further, we seek to examine whether the themes are consistent with the findings of Study 1.

Method

Participants and Procedure

The research design and procedure was the same as that of Study 1 and was also granted ethical approval by the School of Psychology Human Ethics Committee under delegated authority of Victoria University of Wellington’s Human Ethics Committee (approved: 12th February, 2013; Application number: RM019664). As a reminder, the study examined data from Brazilian students who lived in New Zealand for six months as part of the ‘Win the World Program’ run by the government of the Pernambuco state in Brazil. Short interviews were conducted over the phone yielding 279 participants with usable data. All interviews were conducted by a Brazilian student studying toward her PhD in New Zealand.

The interviews were conducted in Portuguese and included an introduction, general adaptation questions, specific adaptation questions, and culture shock questions followed by closing comments (see Appendix A for the original interview schedule used).

Qualitative analysis allows for missing data through the decoupling of responses from the questions, time-points, and participants, and use of each response as independent. Due to this, all responses were used, regardless of whether the participant completed one or all of the interview waves.

Measures

Eight open-ended questions were asked during the phone interview, spanning general adaptation, specific adaptation, and culture shock topics. These questions were: (1) “How are things going?”; (2) “You have mentioned something good that is happening, can you think of anything else good that is happening?”; (3) “Are there any problems that you are experiencing?”; (4) “Can you talk about things that are stressful?”; (5) “What are you doing to make things better?”; (6) “How are you feeling about things that feel familiar and comfortable?”; (7) “Did anything unexpected happen here in NZ?”; and (8) “Anything else that you’d like to mention?”. In cases where these questions were elaborated on by the interviewer or participants this data was recorded for analysis.

Each response was summarised and recorded in Portuguese by the interviewer during the phone interview. The excerpts were then translated independently into English by two bilingual Brazilian PhD students living in New Zealand who split the responses and discussed any translation issues, deciding on the most accurate representation of the data in English. Due to this method of collection, responses were recorded in the third person, and appear as such in the selected excerpts.

Mode of Analysis

The data was analysed using thematic analysis, a method used for analysing qualitative data and abstracting patterns (Braun & Clarke, 2006, 2013). In the current study, thematic analysis was chosen because of its flexibility, the speed at which it can be implemented, as well as its basis as an introductory technique in qualitative analysis, suitable to a researcher unfamiliar with qualitative processes. A realist epistemological position was relevant in the current dataset, as it allows for theorisation of motivations, experiences and meaning in a straightforward way by assuming a direct relationship between language, meaning, and experience of the participants (Braun & Clarke, 2013). An inductive method was used to conduct the thematic analysis, meaning themes were closely tied to the data, without seeking to fit them into pre-defined categories. This was attempted by collapsing responses across all questions and time-points before coding and looking for themes across the resulting corpus of data. Themes were analysed at the semantic level, with the themes being identified based on surface-meaning, identifying explicit meanings and the themes therein.

The six stages of thematic analysis were used in analysis of the collected data, as proposed by Braun and Clarke (2013). Following these suggested stages, each individual response was read and re-read so the researcher could familiarise herself with the content. Base level coding of responses then occurred using an excel spreadsheet to systematically code individual features of responses, with different columns representing the different codes. The codes were then arranged into potential themes and subthemes with the extracts collated under these themes. Themes were then reviewed and polished and it was checked that each theme depicted the codes honestly and thoroughly. Finally, a thematic map was formed and the themes were titled with something that reflected their objective and content. After

completing the whole process, the thematic map (Figure 1) and extract examples from the interviews were given to an additional, experienced researcher for validation.

Results

In the analysis, three broad themes were identified across the entire data set when answering the key research question of what the experiences are of these Brazilian high school students sojourning to New Zealand. These themes, composed of a number of subthemes, were labelled *Difficulties*, *Opportunities*, and *Overall Feelings* of the experience. Figure 6 presents the themes and subthemes in a schematic form. Table 6 presents the number of data extracts for each theme and subtheme, listing their prevalence in the dataset. We then provide a discussion of the content of the themes and subthemes in relation to the existing literature with quotes from the students to illustrate the content.

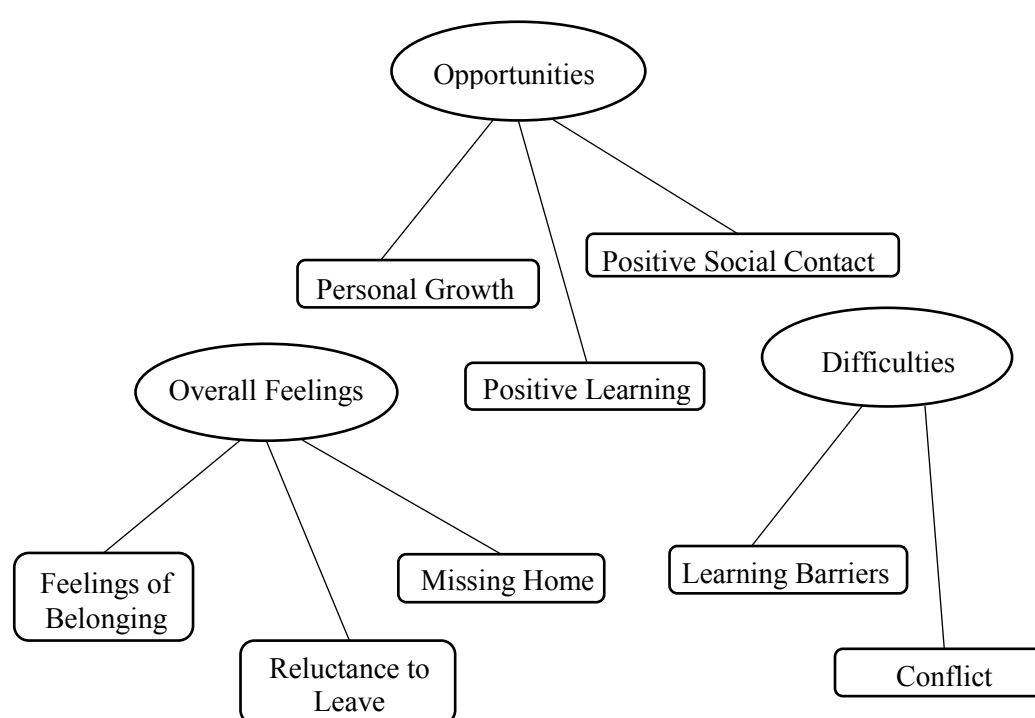


Figure 6. Thematic map of the three themes and subthemes representing the experience of Brazilian high school students in New Zealand

Table 6
Prevalence of Themes and Subthemes in Study 2

Theme	Subtheme	References	Total
Opportunities	Positive Social Contact	874	58%
	Positive Learning	363	
	Personal Growth	141	
Difficulties	Learning Barriers	248	16%
	Conflicts	145	
Overall Feelings	Feelings of Belonging	317	26%
	Missing Home	124	
	Reluctance to Leave	182	

Opportunities

The majority of students' responses detailed the experience of opportunities on their sojourn (58%). These opportunities were highlighted by three key subthemes: (a) positive social contact, (b) positive learning, and (c) personal growth.

a) Positive social contact

A substantive amount of participants reported that individuals or groups, from all areas of their life in New Zealand, had a positive impact on them. In the current study students received the most salient form of support from their host families, who provided comfort and a nourishing learning environment:

The family here takes good care of him, gives him attention, when he doesn't understand something, they help. (Participant 157)

He likes the family, they are quite nice. They are attentive, caring, always asks how he is doing, if he is facing any difficulty. The host brother offered to help him with chemistry. (Participant 129)

Relationships with the host family have been identified as a crucial element of international student adjustment (Sandhu & Asrabadi, 1994). The current findings support the importance of host family through the articulation of the helpful environments students have been placed in, and the students' resulting fondness for these families. As an extension of this

relationship, the participants highlighted that friendships with New Zealanders provided additional support and opportunities for social learning.

Bochner et al. (1977) identified friendships as crucial elements of international student adjustment and developed the Functional Friendship Model which stated that international students belong to three distinct interpersonal networks: host national, co-national, and multi-national groups. Each group provides different forms of support and learning opportunities for the student, which aids the student's adaptation. The functional friendship model is corroborated in the current findings with responses focusing on students' various friendships being frequent, showing the perceived importance of this locus of support:

He talks to another exchange student that is also here. They share their problems. She gives him advice and he feels better. (Participant 237)

The friendships as well, the partnerships, having fun together, helping each other. (Participant 252)

The people are very welcoming and she already made friends from a lot of different places from the world. (Participant 196)

A further source of positive experiences for the students were the nourishing and supportive relationships with the teaching staff at their schools. These were often mentioned as facilitating learning and happiness in the classroom:

She thinks that the concern that the school has with the exchange students is very nice. They help the students a lot, especially the ones who don't have a good level of English. (Participant 274)

The school is more organized and the teachers are very helpful. They always help and answer the questions. The interaction between the school and the students, and the kiwi students is very good. (Participant 101)

Positive social contacts were frequently expressed as an important experience by the participants. The presence of these different types of relationships in the students' responses highlights the importance of different forms of social support, which can help foster effective cross-cultural interactions (Ward et al., 2005).

b) Positive learning

The majority of participants evaluated their experience as beneficial for their future, mainly due to the opportunity to practice English in a native speaking country. The opportunity to learn English represents a core component of the positive learning subtheme, identified in this study. This was not only due to the fact that increasing English proficiency was a main objective of the programme, but also because the students regarded the opportunity to learn so highly:

The opportunity to learn and speak 24/7 a different language, specially knowing that when she leaves, she will have more job opportunities. (Participant 256)

Having the opportunity to learn English in a country where English is the first language. That's surreal. (Participant 171)

Not only the opportunity to learn, but also the subjective improvement of their language skills was frequently mentioned and positively evaluated by the students. Throughout the literature, host language proficiency is deemed to be one of the most influential components with regards to successful cross-cultural adaptation and the cultivation of meaningful relationships (Hayes & Lin, 1994; Ward & Kennedy, 1993b). These conclusions are supported by the quantitative findings presented in Study 1, which noted a significant positive increase in perceptions of English progress across time, as well as an interaction between language progress and interactions with New Zealanders. Building on this evidence, students further emphasised being proud of their accomplishments and new found English competence and the positive outcomes associated with their ability:

[When talking about English] As soon as he arrived, he thought he wouldn't make it. In the first five days he was a bit reserved. After that, he started talking to the host parents. It is not perfect yet, but it has improved. Everything is in English, so he is learning. (Participant 79)

People started giving compliments on her English, saying that she has improved. (Participant 2)

The majority of responses mentioned that improved language skills contributed significantly to the students' perceived positive learning during their sojourn to New Zealand. This finding indicates that the main purpose of the exchange (to learn English) was largely successful for the interviewed students.

c) Personal growth

Personal growth, in regards to maturity and responsibility, was mentioned by participants as an important outcome of the sojourn. Students frequently mentioned that this opportunity for growth may not have happened if they had stayed in Brazil:

He thought that the first month would be a challenge, but it was all about personal growth, and feeling the pleasure of being challenged. (Participant 222)

She is meeting new people, learning new things, and how to behave better. She is learning to be independent, growing as a person. (Participant 240)

She is getting more mature because she received the scholarship every month and she needs to administrate her money. She is learning to take care of herself without the help of her parents. She is more responsible, more mature with this experience. (Participant 93)

The sojourn provided students with substantial opportunities for personal growth, mainly due to the possibility of exposure to a novel range of experiences. Slaten et al. (2016) found that personal growth was an important interpersonal factor in their qualitative study of

Asian university students in the United States. These findings were corroborated by the current study where students placed value on a growing independence, maturity and confidence.

Difficulties

While the majority of students reported positive experiences and opportunities, a notable proportion reported difficulties (16%). These difficulties were described in terms of interpersonal and intrapersonal issues, spanning both the public and private sphere. These difficulties were highlighted by two key subthemes: (a) learning barriers, and (b) conflicts.

a) Learning barriers

A proportion of the responses detailed difficulties with the learning process, often due to significant language problems and the resultant communication issues:

Sometimes at school it is really difficult to do some activities because her English isn't so good. Because of that she can't do them. (Participant 269)

Not understanding the English at school. The teachers speak too fast. (Participant 103)

What stresses her the most is that some people don't understand that things here are not so easy. For instance, her physical education teacher, who doesn't explain when the Brazilians don't understand something. (Participant 220)

The need to communicate convincingly and effectively in a foreign language (English) presented a source of considerable stress for some students. This is supported by previous qualitative research that also identified language and communication problems as a substantial source of stress for international students (Khawaja & Stallman, 2011).

Participants in the current study often worried about their clarity or precision of communication:

She is afraid of saying wrong expressions in English. (Participant 100)

She gets stressed out when someone tries to talk to her and she doesn't understand the language. (Participant 190)

Another reported barrier to language learning was the number of Brazilians, or native Portuguese speakers in the schools. Students who were placed at a school with many other Portuguese speaking students from the same programme (i.e. the 'Win the World Program'), perceived this as a barrier to language learning and expressed frustration about this situation:

The adaptation is going well, and the only thing she doesn't like is that there are a lot of Brazilians at school, so she ends up speaking a lot in Portuguese. That's the only thing, the rest is fine. (Participant 88)

The school is very good, but there are a lot of Brazilians (48) in a very small school. There are more Brazilians than people from here. The probability of speaking in English is very low. (Participant 59)

Responses from participants often detailed language problems as being associated with disinterested teaching and school staff. This contrasts previous results from the opportunities theme, where students spoke of school staff as a component of positive social contact. Differences between students' perceptions of staff could be based on a difference in expectation of the students. It could also be dependent on their placement at various schools, and the staffing supplied. In spite of these differences it is important to note that some students reported a belief that they were receiving a lower quality of teaching compared to that of their native peers:

At school, there is a distinction between regular and foreign students. They even reported the situation to the coordinator of the international department. They put the foreign students in less advanced classes in some subjects. They didn't help the foreign students in the exams, but helped the local students. (Participant 190)

He always tries to talk, but even then the teachers are distant. (Participant 21)

Barriers to language learning, such as reduced opportunities to practice English, as well as problems with teachers and teaching quality were commonly voiced. These responses indicated that these issues created significant learning barriers for the students, making it more difficult for them to learn not only the English language, but also the wider curriculum.

b) Conflict

Conflict with the host family and different expectations between families and students were further sources of difficulty. A frequently reported source of this conflict was the rules and restrictions placed on the students by the host families, which were often perceived as excessive by students:

He is not so independent because the host mother controls him a lot. (Participant 97)

She had some misunderstandings with the family. The house is surrounded by rules.

For example, sometimes she forgets to close the bathroom door, and her host mother goes there and closes it. (Participant 204)

In addition to conflicts over rules, many students reported disputes and arguments with the host family about a range of topics as a source of stress:

She didn't expect that the host mother would yell at her like she did. (Participant 119)

She asked to change families because there was a concert at school and after that a party for them, and the host family didn't let her go. She went anyway and the coordinator took her home after. One week later, when she tried to turn the electric sheets on for 20 minutes, it was gone. The host mother also used to turn the internet off for her not to use it. So she started getting upset and lonely. In the beginning they also talked a lot to her, but now they don't. (Participant 174)

Conflicts about rules and other topics occasionally resulted in students changing host family, or considering this option:

Now everything is really well because she left the house she lived, and she couldn't stand living there. She barely ate, because they offered little food and used to say the price of the food. There were three heaters in the house and they didn't give her any when she asked for it. Yesterday the mother yelled at her because she asked her to put her bags in one place and she put in another one. (Participant 28)

He changed families because he wasn't getting along with the other one. There was only one person in the family, so he couldn't practice his English much. So he moved. (Participant 172)

While a number of students reported conflicts with their host family, it is important to note that not all students reported problems. Although conflicts with host families presented one of the most frequent forms of stress, the host family was also a common source of positive experience, which was prevalent and depicted through the theme of opportunities.

Overall, the experience of sojourning to New Zealand presented substantial difficulties to a number of the students. A wide range of learning barriers, such as language learning and teaching quality, as well as conflict with the host family were frequently reported. These problems presented a significant challenge for the students in their adaptation to New Zealand. It is important to note that while a proportion of the students reported such difficulties during the sojourn, not all participants reported such negative experiences as indicated by the opportunities theme.

Overall Feelings

Affective statements in regards to the overall experience represented a notable part of the responses (26%), with particular importance placed on (a) feelings of belonging, (b) missing home, and (c) reluctance to leave.

a) *Feelings of belonging*

A central theme of the interviews was feelings of belong, for example being accepted by the host family:

She didn't expect that the host family would be so loving with her, that they would treat her as part of the family. Before traveling, they told her the people here were kind of distant, but the first thing the host sister did when she got here was hug her.

(Participant 93)

He is liking everything. The daily life with the host family was one of the best things, like a son with the parents and brothers, he can talk to them. Whenever he need his host mother, she is there for him. (Participant 92)

In participants' responses, the support of the host family was as a substantial contributor to successful adaptation and positive experiences. Students were comforted and supported by feelings of being a part of the host family, and this allowed for a better experience. It is important to note, however, that not all students felt a sense of belonging. As mentioned in the subtheme of conflict under the difficulties theme, some students had issues to varying degrees within their family, which isolated them and made for a more negative experience. In spite of this, feelings of belonging were more prevalent among responses, indicating that for the most part, students were homed appropriately in ways which fostered positive experiences. In addition to the importance of feeling a sense of belonging to the host family, students also reported the feeling of belonging and acceptance in the New Zealand setting in general. A number of students noted the receptivity of New Zealanders and the country as a whole:

She thought she would be very stressed out because she would have a lot of people to meet, but people here are very receptive and help her a lot. She didn't expect them to be like this. (Participant 27)

People here are very receptive, very nice. Even if she has some difficulty to speak, they try to help. (Participant 44)

Having an accepting and welcoming setting for sojourners is essential to aid their acclimatisation into society. This is especially important when the cultural differences are as vast as they are between Brazil and New Zealand, including disparities in power distance and individualism (Hofstede, 2001; Milfont, 2009), as well as the differences in family dynamics (Dessen & Torres, 2002; Torres & Dessen, 2008).

Many students also mentioned the sense of safety they felt in their community and in New Zealand as whole, and how this aided their ability to integrate into the society:

New Zealand is safe, it has all that a first world country has. (Participant 125)

He always dreamed about living in a safe place, and that's where he lives now.

(Participant 147)

She has more freedom here, the streets are calmer, there is no danger. She is liking everything. (Participant 140)

She feels safer here than in Brazil. It is normal to take the money out of the wallet on the streets, to walk around with your cell phone. (Participant 6)

This sense of security articulated by the students links into the positive nature of New Zealand as a receiving country and further highlights the differences the students observed between the different cultures. The receptivity of New Zealanders and the safety of the country as discussed by the students aids the adaptation to the perceived differences between the home and host culture.

b) Missing home

Another common affective component was homesickness. Missing home was a component commonly mentioned in the students responses:

She is already missing her family and the food a lot, she wants to go back to Brazil.

She really wants to start her vacation, buy the gifts for her family and go back. She knows that here is perfect, but who she loves is in Brazil. (Participant 149)

It is not stressful, but sometimes she really misses home. She misses her parents. (Participant 85)

Missing home can be interpreted, consistent with Sandhu and Asrabadi (1994), as a symptom of the acculturative stress that students encounter. These authors found that homesickness is a frequent response to difficulties with language and social networks during the acculturation process.

c) Reluctance to leave

In contrast to the students' reported feelings of homesickness, many students felt reluctance to leave New Zealand:

He doesn't want to go back to Brazil, because he still wants to learn and visit more places. He wants to go to the lake Taupo and the Rotorua museum. (Participant 178)

Everything is great, besides the fact that he is leaving 19 days from now. If he could stay here for 2 or 3 years, he wouldn't complain. (Participant 215)

Students' willingness to stay in New Zealand was influenced by factors such as successful adaptation and integration in the New Zealand society. The willingness to stay represents an important indicator of the quality of the sojourning experience and the success of the exchange programme for these students.

Receiving such detailed affective responses from the students allows for a deeper understanding of their emotional competencies during the sojourn, which provides greater insight than quantitative analyses allows. Despite the format of the exchange requiring the students to return home, understanding the details behind the students' eagerness to stay or leave indicates how the experiences is affecting them in a forthright and honest way.

Discussion

Few studies have examined the sociocultural adaptation, and the adaptation process more generally, of sojourners through a qualitative lens. To supplement Study 1, we examined the qualitative responses of sojourning Brazilian international students in New Zealand. Following the poor model fit of the quantitative analyses, we sought to provide theoretical meaningfulness to the tested models and followed the argument of Barrett (2007). The author stated that in regards to SEM, model fit can often be less important when the research is grounded in a theory or real-world substantive way that replicates using a cross-validation strategy. Because of this the current study sought to analyse qualitative responses of students to determine if theoretical support was present in the students' experiences.

The students interviewed in this study had varied experiences but overall these were generally positive. Indeed, the majority of students reflected on their experiences positively, discussing the opportunities that these experiences granted. These opportunities included positive social contact with the host families, friends, and teachers, as well as positive learning opportunities relating to the English language, and finally the opportunity for personal growth in the form of maturation and gained independence. Difficulties in students' experiences were also discussed, such as barriers to learning English and conflicts within the host family they were placed with. Finally, students mentioned their overall feelings about the experience, which included accounts of feeling as if they belonged in the home with the host families, as well as a sense of belonging in New Zealand, feelings about missing home, and feelings of reluctance about leaving the experience behind.

Positive Experiences

Language. For the most part, learning English was spoken about as a positive experience. Under the subtheme of positive learning, one frequent component was the importance placed on English language improvement. Students who mentioned an

improvement in English spoke of the progress with excitement and pride. Many students who described their improvement outlined how it helped them to foster relationships with friends and their host families, as well as how it aided their learning opportunities in school. These findings are in line with previous research that found that English proficiency was a key factor in adjustment and allowed for those who felt confident in their language ability to interact profoundly both in the social and academic domain (Lefdahl-Davis & Perrone-McGovern, 2015).

Indeed, numerous studies have found that greater levels of host language ability have resulted in better adaptation to the new culture (e.g. Kagan & Cohen, 1990; Ward & Masgoret, 2006; Wilson et al., 2013; Yu & Shen, 2012; Zhang & Goodson, 2011) as well as a larger number and greater quality of social interactions with host nationals (Clément et al., 2001; Kim, 1977; Selmer, 2006; Ward & Kennedy, 1993b). We also observed the importance of language progress as a key component of adaptation in the results of the quantitative and qualitative studies (discussed in Chapter 4).

The similarity to other studies which focused on many students in other settings globally supports the universality of host language competence as a key variable for a successful adaptation of sojourners. It is also worth noting that these Brazilian high school students placed emphasis on the experience of learning English and its importance not only for their day-to-day lives during the experience, but for the betterment of their futures as well.

Interactions. Positive social contact was a further subtheme of opportunities in which students spoke fondly of the host family, friends, and faculty members. These findings reflect closely the findings of McLachlan and Justice (2009) who described the importance of a social support network in navigating the transition into a foreign setting. The authors detailed the importance of positive relationships with professors, fast friendships with co-nationals, and slower friendships with host nationals, as an important foundation for adaptation into the

culture. All three relationship groups were important for the students in assisting them to learn and adapt to the new cultural setting, which is also consistent with the functional friendship model (Bochner et al., 1977) and other empirical research supporting relationships as clear contributors to cultural learning (Hirai et al., 2015; Hechanova-Alampay et al., 2002).

Individual development. Personal growth and an increase in confidence and independence was also prominent in the research of McLachlan and Justice (2009), as well as Slaten et al. (2016). This idea of personal growth was expressed by numerous participants in the current study, indicating that in spite of the difficulties and stressors that can present themselves throughout the process of adaptation, even the more challenging experiences can contribute to the positive opportunity of growing as an individual and becoming more mature and self-sufficient.

Personal growth as an outcome of adaptation is largely overlooked in quantitative analyses of the processes, however the consistent presence of such a factor in qualitative research, supported by the current study, implies that it is of greater prominence and in need of discussion as a positive contributing feature of sojourning overseas.

Overall positivity. Feelings regarding the overall experience were an important aspect of students' descriptions of their time in New Zealand. Feelings of belonging were one of two important positive components of the students' overall experiences. With the host family having an important influence on belonging, the findings support the idea that host family is instrumental in the facilitation of a positive experience. The other important component regarding belonging was the receptivity of New Zealanders as a nationality. The uniqueness of this finding in the current research implies that a welcoming host society can facilitate a positive experience, and can often help in situations where other supportive relationships are lacking. A receptive and friendly host nation adds to the positive recollection of the student and their confidence in the experience. In addition, a safe and

receptive society adds to the comfort of the students and has a positive impact on their experience, which allows the students to take greater advantage of the exchange and what was available to them.

The second positive component of the students' feelings about their overall experience was their reluctance to leave New Zealand and reluctance for the exchange to end. This reluctance could be seen as a by-product of the limited duration of stay on the students' sojourn, with findings suggesting that many issues tend to appear only after six months. Irrespective of this, the salience of students' reluctance to leave New Zealand also indicates that there are significant benefits to the programme the students are a part of, with many students indicating they want to stay to learn more and better themselves further. This again outlines the clear motivations of the students in the exchange, and how they align well with the goals and motivations of the programme put forward by the Brazilian government.

Challenges

Language. For the most part, the experience of sojourning to New Zealand was largely positive for the Brazilian high school students, even for those who faced some difficulty during their stay. Numerous students mentioned difficulties in learning English as a salient part of their experience. Many of the students who claimed such issues were placed at schools in which numerous other Brazilian students, or co-nationals, from the same programme had been placed, thus increasing the availability of Portuguese as a conversational language. Previous quantitative research has found that greater ethnic density at school, or an increased size of the co-national group, has a significant negative effect on student affiliation with host nationals, English competence, and adaptation in general (Chapdelaine & Alexitch, 2004; Ying & Han, 2008). In the context of the Brazilian students, this is a powerful issue that could be avoided by the programme administrators through additional effort in the placement of students in schools. The salience of being surrounded by

Brazilians as an issue highlights the clear motivations of the students to learn and enjoy the experience. Previous research around social support networks suggests that friendships and relationships with co-nationals are important (Bochner et al., 1977), however in the current study, relationships with co-nationals were criticised by the students as getting in the way of their ability to learn and grow through the experience. The fact that the students' motivations to learn English, a clear purpose of the international student exchange, overrode the need for co-national relationships indicates that the students were motivated to succeed in the goals of their sojourn. It is important to note, however, that the diminished importance of co-national relationships in this study could also be influenced by the shorter duration of students stay. As it was a stay of six months, a reliance on co-national support may be less essential than for sojourners staying for a longer period.

Important difficulties also prevailed in the responses including issues with learning barriers. Stress in speaking the English language was a frequent example mentioned by the students in the current study in regards to difficulties. Previous qualitative studies focusing on different groups also pointed toward difficulties with the language as salient issues faced by students (Khawaja & Stallman, 2011; Lefdahl-Davis & Perrone-McGovern, 2015; McLachlan & Justice, 2009). Furthermore, O'Reilly et al. (2010) also noted in their quantitative study of adaptation, that difficulty mastering the host language resulted in worse adaptation outcomes in students.

Host family. Conflict came up as another difficulty highlighted by the students throughout their experience. With most of the sources of conflict taking place within the host family, it is important to note the influence the family that the student was placed with had on their happiness, satisfaction, and ability to learn during the exchange.

The presence of the host family as both a prominent source of positive opportunity and belonging, as well as an area of difficulty, shows how integral social support is to a

sojourning student. Those who had a caring and supportive family were better acclimatised and equipped to make the most of the opportunity, while those who experienced conflict or differing expectations presented with negative feelings. This distinction reflects research by Rodriguez and Chornet-Roses (2014) who found in their study of international student journal entries that different dynamics in the home effect students' cultural learning and intercultural interaction. They outlined the distinction of student-host relationships as falling under categories of family, friend, guest-host, or tenant-landlord. The current study supports the importance of a family-like bond as the most vital for facilitating cultural learning as well as a positive outlook on the experience and family as a whole. Those who reported difficulty with the host family had less intimate connections, comparable to relationships such as the guest-host or tenant-host connection between student and family.

Missing home. In spite of the two positive overall feelings about the experience, one overarching feeling was missing home. This subtheme was prominent under this section and involved the students missing home, their families and friends. Homesickness has also been mentioned in previous studies (Brown & Holloway, 2008; Khawaja & Stallman, 2011; McLachlan & Justice, 2009). Khawaja and Stallman (2011) emphasised its presence as a challenge in the early stages of international students' experiences and linked it to feelings of social isolation. The link between homesickness and social isolation can be applied to the current study as a means of providing solutions to the potential damaging effects of homesickness on the students, as by facilitating the various important forms of relationships with host and co-nationals, lasting reduction in the reports of homesickness may occur. McLachlan and Justice (2009) also emphasised homesickness as a prominent component of distress for international students in their study. The authors linked homesickness to pressure to perform academically, loneliness, and isolation caused by a poor grasp of the language. These findings could be linked to those of the current study, with the other themes of learning

difficulties and language barriers suggesting links to the homesickness experienced. The presence of missing home as a prominent subtheme indicates that there is still work to be done to assist these students and to aid their transition into the New Zealand society and culture, as well as to reduce their experiences of homesickness both from the outset and throughout their experience.

In spite of the notable presence of difficulties in discussion of the students' experiences, it is important to note that difficulties made up a comparably smaller proportion of responses when compared to positive articulations such as those around opportunities. This means that on the whole, students had a positive sojourning experience to New Zealand.

Limitations and Strengths

The current study has several strengths. Using the unique sample of Brazilian high school students from low SES backgrounds allows for an in-depth understand of their experiences during their sojourn to New Zealand. Using the method of thematic analysis allowed for a deeper consideration of their experiences and how they may be similar or different to other, more commonly studied populations. This is an important strength as understanding the unique adjustment experiences of Brazilian international students in New Zealand can inform service delivery and tailored support from student services focused at international students, both within the targeted schools as well as the organisation itself. Furthermore, learning more about the experiences of this group of Brazilian students can also improve awareness and sensitivity toward these foreign students, from families, students, and staff. This greater awareness would help with the adjustment and adaptation of future sojourning groups of students.

Another strength of the current study is the size of the dataset, very few qualitative research papers have datasets of such a large size. To illustrate, the largest sample from our review of previous qualitative literature included only 25 international students (Lefdahl-

Davis & Perrone-McGovern, 2015) while the present study considered responses from 279 international students. This means that we were able to look for trends and themes across a wide range of responses and were not limited to a small focus group or sample. This allowed for more varied responses to be picked up and a greater understanding of the themes present and their salience among the group. This study also extended the quantitative findings reported in Study 1 through the examination of issues that were unaddressed in the scale questionnaire.

Although there were many strengths of the study, an important limitation is that interviews were summarised by the interviewer and not directly transcribed. This results in the recorded samples relying on interviewer discretion and their interpretation of the story being told, which can produce bias in the data. This limitation is enhanced by the dataset being translated before it was analysed, as any nuances missed in the translation process are not included in the thematic analysis of the content. Although we attempted to prevent these issues through the use of multiple bi-lingual translators, it is still an important consideration. To further correct for this, it would be beneficial for future research to record and transcribe interviews in full. Through a clear transcription, qualitative analyses could analyse not only what the participants acknowledge of their experience with more detail, as the current study does, but accurate transcription could also be more thoroughly used to analyse how the participants speak of their experience, through their language use and emphasis, as opposed to the content in what they speak of.

Future Studies

It is important that in the future, more emphasis is placed on qualitative methods in understanding the process of adaptation and acculturation and the experiences of acculturating individuals in various settings. Qualitative methods allow for a clear articulation and understanding of the motivations and feelings of underrepresented groups of people, such

as in the current study, which is important when the research is so applicable to the daily-life of immigrants and sojourners.

Further, more in-depth analysis of unique groups such as the current sample is important, and the current study should be furthered by collecting a more thorough transcription of similar groups' experiences, to allow for deeper analysis. Although we used thematic analysis in the current study for various reasons, other qualitative approaches could be considered in the context of adaptation, such as grounded theory, which is a more rigorous and time consuming process which allows for grounding in pre-existing literature.

Although elaboration on the current findings is an important consideration for future research, the key themes highlighted in Study 2 conform to existing literature and bolster the claims of language as an important contributor to a sojourners cross-cultural experience (Khawaja & Stallman, 2011; Lefdahl-Davis & Perrone-McGovern, 2015; McLachlan & Justice, 2009). The current research also highlights less prominent phenomena, such as personal growth, and brings these ideas to the forefront of future consideration. Using a unique group provides a valuable contribution to the qualitative literature on the topic of adaptation in cross-cultural transition, emphasising the similarities between our group of low SES Brazilian students and previously studied groups, suggesting universalities among findings.

Chapter 4: General Discussion

Although research that examines individuals' adaptation to a new cultural context is not new in psychology, it is becoming increasingly important in the current climate of increased movement between countries and across cultures. To date, despite the recognition that adaptation is process-driven (Demes & Geeraert, 2015; Oberg, 1960; Ward & Geeraert, 2016), adaptation research has largely relied on cross-sectional datasets. The current thesis fills this gap in the literature by conducting a longitudinal study on a unique and previously un-studied population of sojourning Brazilian students in New Zealand.

In brief, this thesis utilised a mixed-methods approach to provide an in-depth investigation of the across-time adaptation of international students in New Zealand. Study 1 provided a quantitative examination of the process of adaptation and change in response to a new culture, while Study 2 provided a qualitative examination of the adaptive experience of students. Overall, the results provided empirical support for most predictions (see Table 7). We have provided a detailed discussion of the findings in the separate study chapters. Here we summarise the results of both studies, emphasising core findings. This is followed by a discussion of the convergent findings of both the qualitative and the quantitative approaches, as well as theoretical and practical implications.

Table 7
Summaries of Hypotheses and Results

Hypothesis	Result
H1: Ratings of interactions with New Zealanders, as well as English progress, will increase over time.	Supported. Ratings of interactions with New Zealanders and ratings of English progress increased linearly over time.
H2: Self-reported levels of participants' experiences of culture shock will decrease over time.	Supported. Ratings of culture shock decreased linearly over time.
H3: English progress and interactions with New Zealanders will be related across time.	Supported. Cross-lagged and mediating effects were found between English progress and interaction over time.
H4: English progress and interactions with New Zealanders will reduce culture shock over time.	Not supported. Cross-lagged analyses indicated no relationship between culture shock and the two variables in this sample.

Summary of Findings

Linear trajectories. To investigate H1 and H2, Study 1 examined how key components of adaptation changed across three time-points in the population of sojourning Brazilian students in New Zealand. Through the use of LGM across the three time-points, we found that both interactions with New Zealanders and perceived English progress demonstrated linear increases, whilst culture shock exhibited a linear decrease. These findings indicate that over the duration of the students' sojourn, both ratings of interactions with host nationals and language ability increased, while culture shock decreased, likely due to greater familiarity with the novel cultural context.

Temporal associations. To test H3 and H4, Study 1 investigated the longitudinal relations between the variables that changed over time using a cross-lagged panel design. We observed significant longitudinal associations between ratings of interactions with New Zealanders and English progress. Students who reported higher ratings of their language progress at T1 rated interactions with New Zealanders more positively at T2, and this relationship held true between T2 and T3 as well. In addition, participants who reported more

positive interactions with New Zealanders at T2 reported higher ratings of language progress at T3. This apparent feedback loop between ratings of language progress and interaction with host nationals supports the idea that both are crucial and mutually beneficial components of students' adaptation. A longitudinal mediation provided further evidence for the intrinsic relationship between these two components of adaptation, with interactions with host nationals at T2 significantly mediating language progress between T1 and T3.

Themes of responses. Study 2 provided a qualitative perspective on the same student population examined in Study 1. Across participants' interviews, we identified three thematic areas: opportunities, difficulties, and overall feelings. Each thematic area included multiple subthemes. Opportunities included subthemes of positive social contact, positive learning, and personal growth. Difficulties subsumed learning barriers and conflicts. Finally, Overall Feelings included subthemes of feeling of belonging, missing home, and reluctance to leave New Zealand. The three themes and their subthemes encompassed a broad range of experiences that had been highlighted by the students during their sojourn, and both positive and negative articulations provided a cohesive picture of the components of the students' cross-cultural transitions.

Comparison to Previous Quantitative Research

Current discussion in the literature (see Bornstein, 2017) differentiates the specific mechanisms through which the process of acculturation can occur. Bornstein (2017) argues that acculturation is a function of the individual, the setting, the process, the domain, and time, with each contributor having specific influences on the experience. Our study expands the applicability of these distinctions through the study of the adaptation in a novel group of Brazilian students in New Zealand. The current research supports Bornstein's (2017) idea that different populations have very different experiences of adaptation, but that similarities and differences can be found between populations of various entry and exit location. The

linear trajectories found in Study 1, which depicted an improvement in English progress and interactions with New Zealanders as well as decreased culture shock over time, are in line with previous research relying on different groups of sojourners travelling to different locations (e.g. Chapdelaine & Alexitch, 2004; Chiswick, Lee, & Miller, 2004; Hechanova-Alampay et al., 2002). This demonstrates uniformity between previously researched populations and the unique sample of Brazilian students in New Zealand. However, as will be discussed in the coming sections, the mechanisms through which these changes occur may vary based on the specific attributes of an acculturation or adaptation experience.

The temporal associations found in Study 1 support H3, which proposed a relationship between ratings of interactions with New Zealanders and English progress over time. These findings corroborate the suggestions of both Gullahorn and Gullahorn (1966) and Clément et al. (2001) who proposed that the relationship between English language ability and host culture interaction was likely reciprocal. The authors theorised that greater language skill led to an increase in participation and interaction with the national culture of the host country, which in turn facilitated the improvement of language ability through practice. Consistent with this idea, we observed that students reporting higher initial levels of English progress had better tracked outcomes in both English progress and interactions with New Zealanders at the later points. Likewise, students who had better ratings of interactions both initially and at the mid-point reported higher ratings of English progress at the final measurement point. This relationship suggests that not only may students with a better grasp of the language partake in more interactions with host nationals, but that those who have more interactions with host nationals will also have more opportunities for language acquisition. This indicates that on a sojourn both language and interaction have important and reciprocal roles in adaptation and navigation through unique cultural transition. These findings suggest that initial assessment of students' English proficiency is an important

consideration, and that more support and attention should be given to students with lower English ability at the time of arrival, in order to facilitate improvement in both English progress and interactions with New Zealanders across the sojourn.

Unlike previous research where emphasis is placed on decisions during the planning period of the move (Tabor, Milfont, & Ward, 2015) and the point of entry into a new culture (e.g. Hechanova-Alampay et al., 2002; Hirai et al., 2015; Searle & Ward, 1990), the current findings indicate that the mid-point is a significant time in the sojourn. The cross-lagged findings of Study 1 showed that between the initial time-point and the mid-point, ratings of English progress contributed to ratings of interactions with New Zealanders. Additionally, mid-point ratings of both English progress and interactions with New Zealanders resulted in higher ratings of the other at the final time-points, with mid-point ratings of interaction with New Zealanders also mediating the change in English progress ratings across the sojourn. These results highlight the middle of the sojourn as a focal point for change and the progression of adaptation, where more positive interactions could be beneficial and where support programmes for sojourners should be targeted. Through the facilitation of greater improvement in English and interaction halfway through a sojourn, as well as initially, a profound improvement of final ratings of English progress and interactions with New Zealanders may be observed.

The final hypothesis, that greater ratings of interactions with New Zealanders and language progress would reduce culture shock over time, was not supported by the current research. This indicates that, while culture shock showed an expected linear decrease over time in our sample, neither language progress nor interactions with New Zealanders explained this change. These findings are inconsistent with research showing that interactions with host nationals (Chapdelaine & Alexitch, 2004) and greater language proficiency (Yeh & Inose, 2003) associate with lower levels of culture shock. This discrepancy between previous

research and the findings of Study 1 could be explained by the welcoming nature of New Zealand as a receptive society. New Zealand is a prominent multicultural society and among the leading nations on the Migrant Integration Policy Index (MIPEX), a means of measuring the policies present to integrate migrants into various nations (Migration Policy Group, 2015). Previous literature has argued that pluralistic societies, and the presence of more liberal immigration laws, foster inclusivity of foreigners into the host society (Bornstein, 2017). This indicates that sojourning to a supportive culture may make language acquisition a less salient component of adaptation relating to the reduction of culture shock, as a multicultural society has more experience with accommodating non-native language speakers.

Study 2 supports this theory, as the supportive and receiving nature of New Zealand was highlighted by the students as contributing to a positive experience. Furthermore, based on Bornstein's (2017) argument that it is the numerous specifics of a context that can effect acculturation, it is possible that other prominent factors of culture shock, for example social norms, weather, and culinary differences had a greater influence on this particular group of Brazilians than interactions with New Zealanders and language progress. Previous research has placed emphasis on language and interactions as universal contributors to culture shock (Chapdelaine & Alexitch, 2004; Furnham & Bochner, 1986; Oberg, 1960; Yeh & Inose, 2003). However, assuming that these factors are of prominence across all adapting groups does not take into account the individual differences between groups, and might overlook the subtle nuances that occur across cases of culture shock. Future studies should examine this possibility further.

Comparison to Previous Qualitative Research

The themes identified in Study 2 are consistent with several themes observed in previous qualitative analyses of sojourner and migrant interviews. Positive evaluations of the

experience of sojourning to New Zealand were frequent in Study 2, and had many similarities with previous literature. Study 2 suggests that language learning is a prominent component during cross-cultural transition, and can aid a positive experience. These findings support those of previous research (e.g. Lefdahl-Davis & Perrone-McGovern, 2015), and also highlight the importance of language for the cross-cultural adaptation of the subjects observed in Study 1. Previous research also outlines the important and positive influence of personal relationships and support networks (e.g. Constantine et al., 2005; Lefdahl-Davis & Perrone-McGovern, 2015; McLachlan & Justice, 2009; Slaten et al., 2016). Support networks are relevant in the findings of Study 2, as students frequently emphasised the importance of the host family and a feeling of belonging in aiding their transition to New Zealand society. Finally, Slaten et al. (2016) highlighted the importance of personal growth in their study, which is reflected in our findings that students commonly described the experience as an opportunity for betterment and growth. Together, these positive components suggest that having the support to foster the skills needed to adapt to the host society allowed for individual improvement, and that all these components fed into each other to produce a better experience for the sojourners.

Regarding the negative evaluations of cross-cultural experiences, homesickness was a prominent and recurring theme in the previous literature (e.g. Brown & Holloway, 2008; Lewthwaite, 1996; McLachlan & Justice, 2009). These negative evaluations were also of note in Study 2. Many of the Brazilian students identified the experience of missing their family, friends and home as particularly salient. Additionally, depictions of learning and language issues were central to previous literature (e.g. Khawaja & Stallman, 2011; Lefdahl-Davis & Perrone-McGovern, 2015; Lewthwaite, 1996; McLachlan & Justice, 2009). Study 2 reflects this theme, as students referenced the barriers to learning both academic content and the English language as negative aspects of cross-cultural transition. This was described as due

partially to the concentration of Brazilian students around them, as well as stress when speaking English. Summarising previous research, Borstein (2017) stated two conflicting views have been identified regarding the presence of co-nationals and whether their presence helps or hinders the adaptation process. One side suggests that a network of co-nationals can serve as a positive local for shared experiences, while the other side suggests that remaining close to co-nationals may obstruct exposure to the host culture. The frequent articulation of co-nationals as an obstruction to student learning throughout the findings of Study 2 suggests that in the specific sojourning context of the current research, the physical presence of other Brazilian students is a hindrance. This could reflect the short nature of the sojourning experience, and the emphasis of learning as a goal.

Unique in Study 2 was the frequent articulations by students that they did not want to go home, and needed more time on the exchange. Previous studies of sojourner experiences have not reported such sentiments and this likely reflects the high quality of the experience of the Brazilian students in New Zealand. These findings also reflect the receptivity of the host society in general. Many students recounted how helpful and welcoming New Zealanders were and the sense of belonging that is engendered, a phenomenon not explored by previous sojourning literature. The format of the programme meant that a large number of Brazilian students left their homes and arrived in a new culture at similar times and in similar circumstances which allowed for an intrinsic bond between students based on shared experience. The knowledge that each student was not alone in their experience and that there were others in the same position meant that some of the anxiety and loneliness that came with an independent sojourn may have been reduced, allowing for a more positive experience and more articulations of not wanting to leave because of this support system. This is reflected by the notion that co-nationals bond through shared experience, which can consequently improve the ability of individuals to adapt (Kosic, Kruglanski, Pierro, & Mannetti, 2004).

These results disagree with one side of the argument presented by Bornstein (2017), that the presence of co-nationals is valuable to the adaptation process. The current research therefore provides support for both of the opposing sides of the argument. To account for this, we suggest a separation and differentiation of the ways in which co-nationals can be helpful. The findings of the current research suggest that the presence of co-nationals, in that the students are surrounded by other Brazilians, hinders the adaptation process through the density of home-nationals, while the inherent knowledge that other co-nationals share the same experience aids adaptation through the intrinsic bond that is formed.

It is also worth noting that these Brazilian students came from low SES backgrounds, and would unlikely be able to travel aboard if not for the ‘Win the World Program’. New Zealand is a wealthier country than Brazil, and the Brazilian students were exposed to a much more affluent context during their sojourn, exemplified in the facilities they encounter in their homestays and schools, as well as in everyday life in New Zealand. Related to this point, a key difference articulated by the students in Study 2 was the safety of New Zealand compared to Brazil. The literature clearly describes links between crime and SES, with lower SES relating to greater delinquency and crime rates (e.g. Agnew, Matthews, Bucher, Welcher, & Keyes, 2008; Wilson, Kirtland, Ainsworth, & Addy, 2004). Statistics by the Organization for Economic Cooperation and Development (OECD) illustrate the disparities between Brazil and New Zealand regarding crime and safety. In Brazil homicide rates are 26.7 in every 100,000, a homicide rate six times higher than the OECD average, while in New Zealand the rate is just 1.2 in every 100,000. The presence of crime can affect the perception of safety of residents. This is also reflected in pre-existing research, as 64.4% of New Zealanders feel safe walking home at night, while only 39.5% of Brazilians feel safe doing so (Organization for Economic Cooperation and Development, 2016a, 2016b). The disparity between the ingrained perceptions of safety in each location might also explain the

frequent articulations by students that they did not want to go home. Considering the change in environment when arriving back to the poorer and less safe reality of Brazil might influence the students' opinions of the exchange.

Convergence of Quantitative and Qualitative Findings

Study 1 and 2 used diverse methods of analysis in an effort to identify whether quantitative and qualitative findings complement each other in the study of adaptation in a cross-cultural sojourning experience. The convergence of the quantitative findings of Study 1 and the qualitative findings of Study 2 allows for detailed understanding of thoughts, feelings, and emotions of the students in relation to their adaption to the New Zealand context.

Findings of both studies confirmed the importance of learning English for the development and adaptation of international students. Study 1 indicated that English progress significantly contributed to students' abilities to adapt over time and interact further with the host nationals in New Zealand. Study 2 emphasised that learning the English language was a positive opportunity for the students, and that barriers prohibiting or reducing students' abilities to learn and speak English resulted in a more negative experience. Both studies therefore indicate that adaptation and the experience of the sojourn hinges to an extent on the student's ability and opportunity to learn English, as not only does this effect the trajectory of their adaptation, but also their perception and enjoyment of the experience as a whole. Being able to speak English therefore has both practical uses, such as communication in daily life, as well as affective uses, through the comfort it provides, such as being able to converse more meaningfully about problems and experiences with friends and the student's host family. The significant role learning English plays in both practical and emotional outcomes for sojourning students indicates that it should be considered a focus for targeted policy and organised support within sojourning and immigrating groups. As already suggested, support

for English learning at the beginning and mid-point can provide a strong foundation for improved trajectories and higher ratings by the conclusion of the sojourn.

Furthermore, the quantitative and qualitative findings converge on the prominence of social contact and, more specifically, interactions with the host nationals on the exchange. Study 1 emphasised that interactions with New Zealanders are an important mechanism for encouraging language skill development and successful adaptation over time. Study 2 built on the idea that relationships with New Zealanders are vital, as these relationships aid students' feelings of social support and their perceptions of positive opportunities in the experience. In combination, and similar to the observations relating to learning English as noted above, both studies indicate that while interactions with New Zealanders are important from a practical stand-point, in terms of cultural immersion and language learning, they are also important in an emotional sense, providing friendship and support for a student who is in a foreign environment.

Throughout the qualitative responses analysed in Study 2, it became apparent that many positives and negatives of the sojourn experience centred on the relationships and dynamics within the host family. The host family was a large contributor to positive social contact, a subtheme of opportunities, and was often referred to positively by the students. In terms of difficulties and conflicts however, the host family was also a source of negativity, albeit to a much lesser extent. The overwhelming presence of the host family as a positive contributing factor to students' responses reflects the findings of Study 1. Although the variable of host family produced no significant change over time in the early trajectory analyses of Study 1, the one-sample *t*-test of Study 1 showed that mean ratings were significantly different from the mid-point of the scale, with average initial ratings of the host family falling very closely to the upper weight of the Likert scale. This means that, most often, students were rating how things were going with their host family as "very positive".

This finding corresponds with the large proportion of positive sentiments about host family expressed by students in Study 2 and together, the studies support the significant role played by the host family in the experiences of the sojourning students.

The role of the host family may also have positive impacts on the adaptation experience through the cultural knowledge imparted from the family to the student. Bornstein (2017) identified 'domain' as a specific contributor for adapting to a new society and discussed the idea that newcomers adapt in a different way and at a different rate in the public sphere, than they do in the private sphere of the home. This idea originates from immigrant families where the home culture is supported in the home, and the public domain encourages adaptation to the host culture. In this way, the sojourners of the current study benefited from contact with a host family as opposed to if they had stayed with members of their home culture. Residing in a host family of New Zealanders would encourage adaptation to the host culture in both the public and private domain, most likely reinforcing the adaptation process and providing easier access to the cultural learning tools required to settle in to the new country and culture. This demonstrates a clear benefit of educational exchanges and host family pairings regarding the fast-tracked settlement of students into the new culture.

Divergence of Quantitative and Qualitative Findings

Although Study 1 and Study 2 support each other in several of the most important findings, there are also several points where the findings diverge. A unique finding in Study 2 was the importance of the opportunity for personal growth as a theme in student responses. This is an underrepresented concept both in Study 1 and in quantitative research as a whole. Qualitative analyses indicated that personal growth can contribute positively to a student's experience in another country, meaning that perceived personal growth could have numerous effects on various quantitative variables. As mentioned in Study 2, personal growth promotes a sense of independence, responsibility, and maturity which could contribute to essential

components of psychological adaptation such as satisfaction and well-being (Searle & Ward, 1990). These links between personal growth and adaptation are clearly significant, and have been demonstrated previously in qualitative literature (e.g. McLachlan & Justice, 2009; Slaten et al., 2016). Future quantitative research could incorporate personal growth in the survey questionnaires. The presence of personal growth as a theme also highlights the importance of using qualitative methods to let themes emerge from discussion rather than through limited response data from quantitative questionnaires, as this only allows findings related to the constructs posited in the questionnaires and scales.

Implications and Applications

There are many implications and applications of the current research. In combination, the results of Study 1 and Study 2, as well as a plethora of previous research (e.g. Jasinskaja-Lahti, 2008; Kagan & Cohen, 1990; Ward & Masgoret, 2006; Ward & Kennedy, 1993b, 1999; Wilson et al., 2013; Zhang & Goodson, 2011), emphasise language proficiency and interactions with host nationals as extremely important in the sojourning population. This insight can be applied to the provision of better aid and care to future sojourning and international student populations. By attending to the issues of host national interaction and language, and being mindful of these two important facets during attempts to integrate students, the transition to a new culture should be more harmonious.

Providing students with access to intensive language learning, both prior to and early on in the exchange, as well as supplementing this at the mid-point, could have an impact on the success of their experience. Jasinskaja-Lahti (2008) concluded in her longitudinal analyses, that host language proficiency early in the experience aided cultural competence as time went on. To support these findings, as well as those of Study 1, language programmes could be targeted at students or sojourners with poor proficiency in the host language at both the initial and mid-point. Likewise, facilitating relationships with host nationals through use

of mentor systems or group meetings could also help improve the experience for students. Furthermore, with host family providing a significant opportunity for support, education of the host family in the importance of language and host national interaction could allow for a greater contribution from the host family toward the achievement of these goals. The suggestions above could also be extended to other groups such as university students, children of immigrants, and to an extent, immigrants themselves, as the research of Study 1 and 2 coincides with previous research on these populations, and indicates the universal importance of language and interaction.

In Study 2, the students also highlighted the important difficulty of having too many Portuguese-speaking students at their school. Although the present research did not directly examine the impact of the number of co-nationals on the adaptation outcomes, this suggests that more care could be taken when placing sojourning students into schools, so as to reduce the likelihood of students falling into habits of speaking in Portuguese and making only Brazilian friends. By taking these precautions, students would be likely to gain more from the experience through their emersion in New Zealand culture.

A theoretical implication of the current research centres on the lack of empirical support for the fourth hypothesis, that language and interaction did not influence change in culture shock over time, despite the presence of this interaction in previous literature (Chapdelaine & Alexitch, 2004; Yeh & Inose, 2003). Swami et al. (2010) claimed that host language ability provided common ground between sojourners and host nationals, which reduced their perceived experience of cultural differences. Considering this, the current findings suggest that the reverse may also be true, and a reduction in the perceived cultural differences, perhaps through the welcoming and multicultural nature of the host society, may reduce the necessity of language to provide common ground. The lack of support for H4 also suggests that language ability and interactions with host nationals may not be a universal

predictor of a reduction in culture shock, and that in societies such as New Zealand, increased multiculturalism may dampen the effects of these variables on culture shock. An available way of gauging multiculturalism is by measuring the presence of multicultural policy in different nations through the MIPEX (Migration Policy Group, 2015). This scale depicts New Zealand as among the leaders in policy implementation. In order to test the dampening properties of multiculturalism on the effects of language progress on culture shock further, future research should focus on other nations which score similarly on the MIPEX, such as Canada, Belgium and Australia (Migration Policy Group, 2015). Using these similar countries as host nations in similar sojourning contexts, with groups showing similar levels of cultural distance as is seen between New Zealand and Brazil, will help to determine whether this lack of association between language, interaction, and culture shock is a function of the multiculturalism of the receiving society or not.

This research also helps to refine existing theory which surrounds the importance of language and its influence on interactions with host nationals. By providing quantitative support for the suggestions of Gullahorn and Gullahorn (1966) and Clément et al. (2001), the current research not only supports the presence of a reciprocal relationship between the two variables of interaction and language, but also indicates the direction of the relationship across time. The results from cross-lagged analyses indicate that the flow of causation is from language ability influencing subsequent improvement in interactions with host nationals. Moreover, the longitudinal mediation results indicate over-time improvement of English progress is mediated by interaction at the mid-point of the sojourning experience. The findings of the present research provides a deeper understanding of the nature of the relationship between the two variables.

Limitations and Strengths

The current research has presented strengths over previous research. Both Study 1 and 2 relied on the same sample of sojourning Brazilian students, which allows for direct comparison and relation between the results of the two different methods. This is important when analysing the similarities and differences between quantitative and qualitative findings, and is a significant strength of the current research. Furthermore, the sample size used for both groups was relatively large ($N = 279$) and demonstrated very little attrition, which is influential for both longitudinal and qualitative research. Qualitative design often lends itself to small, specific groups, which require a lot of detailed and rigorous interviewing. This can make it difficult to recruit large samples for analysis due to constraints of both time and population. The current research, however, focused on responses from a comparatively large sample of unique students, which allowed for a more comprehensive analysis of the central themes.

Another important strength in the current research is the use of a unique sample of students. The sample was comprised of Brazilian high school students from low SES families who performed to a high academic standard such that they were chosen to participate in the programme which involved travelling to New Zealand to learn English. This sample is unique as, without this opportunity, many of the students may not have had the opportunity to have an experience abroad. Because of this, the results hone in on the experiences and trajectories of a very distinctive population and allow for understanding of cross-cultural adaptation within this group and their experience of this process. This is a rarity as, for the most part, the current body of literature focuses on groups of university students, a more mature cohort than the high school students used in this research. Further, very little existing research uses South American international students in cross-cultural transition for analysis, with analysis on the adaptation of low SES students even more of a rarity.

Finally, the studies undertaken in this thesis are important for the implementation and application of the ‘Win the World Program’. Being a government-funded programme, researching the perspectives of the students undertaking the educational exchange allows for a deeper understanding of what is being achieved through this investment, and where additional importance should be placed. This is a key strength of the current studies, as it provides a clear and practical direction for improvement of the programme through focus on language and interaction aid. Since the present research was only possible because we obtained access to information provided by the ‘Win the World Program’, we provide a brief list of recommendations to the programme based on the findings reported here. Although directed to this programme and Brazilian students in New Zealand, we believe some of these recommendations are also valid for other similar exchange programmes and sojourning populations. First, following the comments of students describing too many Portuguese speaking students at similar schools, more care could be taken in the placement of Brazilian students into schools in an effort to reduce exposure to conversational Portuguese and encourage English learning. Second, support could be set up in the form of English education at the beginning of the exchange, in order to instigate a better improvement trajectory over time in students. This is particularly important in students with poorer initial abilities, as mentioned above. Finally, supplementing English language learning at the mid-point could also prove beneficial for the students of the programme and encourage better results of language proficiency at the end point. In these regards, the ‘Win the World Program’ of the Pernambuco State government would benefit from applying this research to their existing programme.

Despite several strengths, it is important to acknowledge the imitations of the present studies, which include the short duration of stay. The current research focused on a sojourn with a duration of only six months, with three measurement points within that time.

Therefore, any changes that might occur after six months could not be assessed. Additionally, three measurement points limits the quantitative analyses to the examination of linear trajectories, which may miss any non-linear or quadratic patterns of change that require additional time-points to test for. The fact that the three time-points were during the sojourn itself is also a limitation, as it is preferable to have a comparative measurement before the sojourn, and upon return, as this allows for the analysis of differences in mean levels and could provide insight into the intensity and longevity of change brought about during the sojourning experience. A third limitation is the format of the questionnaire. Although the brevity of the phone interview used to discuss the sojourn eliminated participants' fatigue, its brevity limited the type and number of questions that could be included. This meant that specific areas of focus were chosen (Appendix A), which future research could build on by including variables that may affect the trajectories and changes demonstrated by the current research, for example personal growth, perceived discrimination, and personality traits. Furthermore, the brief nature of the phone interview may limit the depth to which a student felt it appropriate to respond when answering open-ended questions, and thus fail to capture the full picture.

Additionally, having scale-based and open-ended questions interwoven in the interview format could influence the responses of students in the open-ended questions. Through order bias in the question format, earlier questions may act to 'anchor' the responses of later questions (Landon, 1971). Leading from this, the scale-based questions may prime various concepts in the minds of the students, making particular topics salient and prompting them to mention these issues when reporting on their experience. This could result in a limited range of responses to qualitative questions and an altered representation of prominent themes.

Future Research

The use of longitudinal methods is important in advancing the current body of literature on adaptation, and has had only limited use in existing adaptation literature with regards to the predictors of sociocultural adaptation (Hechanova-Alampay et al., 2002; Hirai et al., 2015). With adaptation recognised as a process-driven concept (Demes & Geeraert, 2015; Oberg, 1960; Ward & Geeraert, 2016), longitudinal methods should be implemented more frequently and to a greater depth in future research to allow for analysis of changes over time. The use of such methods will help to describe the process of adaptation to a new country and culture instead of observing a very limited single time-point. Cross-sectional data prevents the observation of change or longitudinal relations among key variables, providing a limited analysis of what is both an important and changeable development through a cross-cultural experience and the adaptation process.

The current research also outlines the importance of using mixed research methods to widen the perspective of current research in the topic of adaptation and international student sojourning experiences. Qualitative research is a valuable method which research on the topic of adaptation can utilise. Increasing the body of qualitative literature in this area will allow for understanding of concepts and experiences of groups that is more relatable, with emphasis on articulations, experiences, and feelings of people experiencing the process of cross-cultural transition and adaptation. Additionally, to use qualitative research in collaboration with other methods can provide theoretical insight to influence the direction and refinement of future quantitative research. Haslberger (2005) suggested the increased use of qualitative and mixed-methods approached in the study of adaptation and our research supports this notion because of the clear and unique strengths of these methods in supplementing the widely cross-sectional quantitative literature that exists to date.

Future research, where possible, should also focus on sojourns of longer duration and with more measurement points than that examined by the current research. A longer period with more measurement points, would draw a more comprehensive picture of the changes and trajectories that can occur in a population over time (see Demes & Geeraert, 2015). A greater number of measurement points would allow for analysis of change that could indicate non-linear or quadratic patterns, something that was beyond the scope of the current, three point study. Furthermore, the duration of most longitudinal literature examining trajectories of sociocultural adaptation, and more specifically those analysing trajectories of predictors of sociocultural adaptation, is limited to six-months (Hechanova-Alampay et al., 2002; Hirai et al., 2015). This means that a duration lasting longer than six months would allow for an account of the changes that occur beyond these early stages of a sojourner or immigrant experience. For example, Ward et al. (1998) analysed the adaptation of sojourners across a twelve-month period and found, consistent with the current research, that sociocultural adaptation issues decreased over time. However, the authors also found that between six and twelve months an increase in difficulty occurred, something that could not be measured in the current research. With these considerations it is preferable to increase duration and depth of studies to enrich the dataset and existing literature.

Regarding the specific context of the 'Win the World Program', which was at the forefront of the current research, an important direction for future research would be through replication with a similar population. Replication would provide support for the current findings, with any discrepancies providing further questions as to where and why differences occur between groups taken from the same population. Replication would also allow for further refinement of the study, allowing for a streamlined questioning, recording, and translating process with both qualitative and quantitative analyses as a target. With the programme still organising cohorts of students to travel to New Zealand in an effort to learn

English, potential follow up could aim to replicate the findings of the current study with a new cohort in the same situation.

Further collaboration with the Brazilian government may also provide a good opportunity to follow groups of student through their return. Collecting data after the students return would provide useful comparisons to their ratings of variables during their sojourn as it would depict whether the sojourn had long-term effects for the betterment of the students which was a target of the programme. Additionally, re-entry to a home culture can pose its own difficulties, which would be interesting to analyse in this unique population.

Chapter 6: Conclusion

An increasing number of sojourners and immigrants from different cultures arrive in New Zealand each year, as well as in many other countries and cultures worldwide, hoping to have a positive and enriching experience. Understanding the difficulties that these groups often face on arrival and during their stay is necessary in order to provide successful support for newcomers who enter a potentially overwhelming environment. This thesis provided quantitative and qualitative examinations of international student sojourner experiences over time: quantitative and qualitative. The combination of these approaches shows that not only do the trajectories of various facets of adaptation change over time, but that they are salient in the perceived experiences of the students. Possibilities to apply these findings are numerous, both within the context of the ‘Win the World Program’ as well as in sojourner and immigrant adaptation in general. While the consistency of our findings with previous literature suggests the universality of sociocultural adaptation as a process in several aspects, there is also support for application of the specificity principle to adaptation research. Future research should test possible improvements to the programme and to immigration protocol itself, and to retest longitudinally with a similar cohort to see if changes can successfully aid adaptation.

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Appendix A: Phone interview questionnaire

**QUESTIONS****[INTRODUCTION; REASON FOR THE PHONE CALL]****[GENERAL ADAPTATION QUESTION]**

We are interested in how things are going for you during your stay in New Zealand.

1. How are things going? _____

[Pursue any issue that is mentioned for one or two follow-up questions]

[SPECIFIC ADAPTATION QUESTIONS]

2. You have mentioned something good that is happening, can you think of anything else good that is happening? _____

[Try to get a couple of positive things]

3. Are there any problems that you are experiencing?

[Try to get several if possible]

[If the student doesn't mention specific topics, then bring them up and ask how things are going in these domains]

4. How are things going with:

1. Your host family (1 = very negative; 3 = neutral; 5 = very positive);
2. Learning the English language (1 = very negative; 3 = neutral; 5 = very positive);
3. Interacting with New Zealanders (1 = very negative; 3 = neutral; 5 = very positive);
4. Missing home (family, friends, food, etc.) (1 = not at all; 3 = neutral; 5 = a lot)

[“CULTURE SHOCK” QUESTIONS]

People talk about “culture shock”, namely when one visits a new place being stressed by the differences and newness of it.

5. How much culture shock do you think you are experiencing? (1 = none at all; 3 = some; 5 = a lot)?

6. Can you talk about things that are stressful?

7. What are you doing to make things better? (behaviour, strategy, idea wise...)

8. How are you feeling about things that feel familiar and comfortable?

9. Did anything unexpected happen here in NZ?

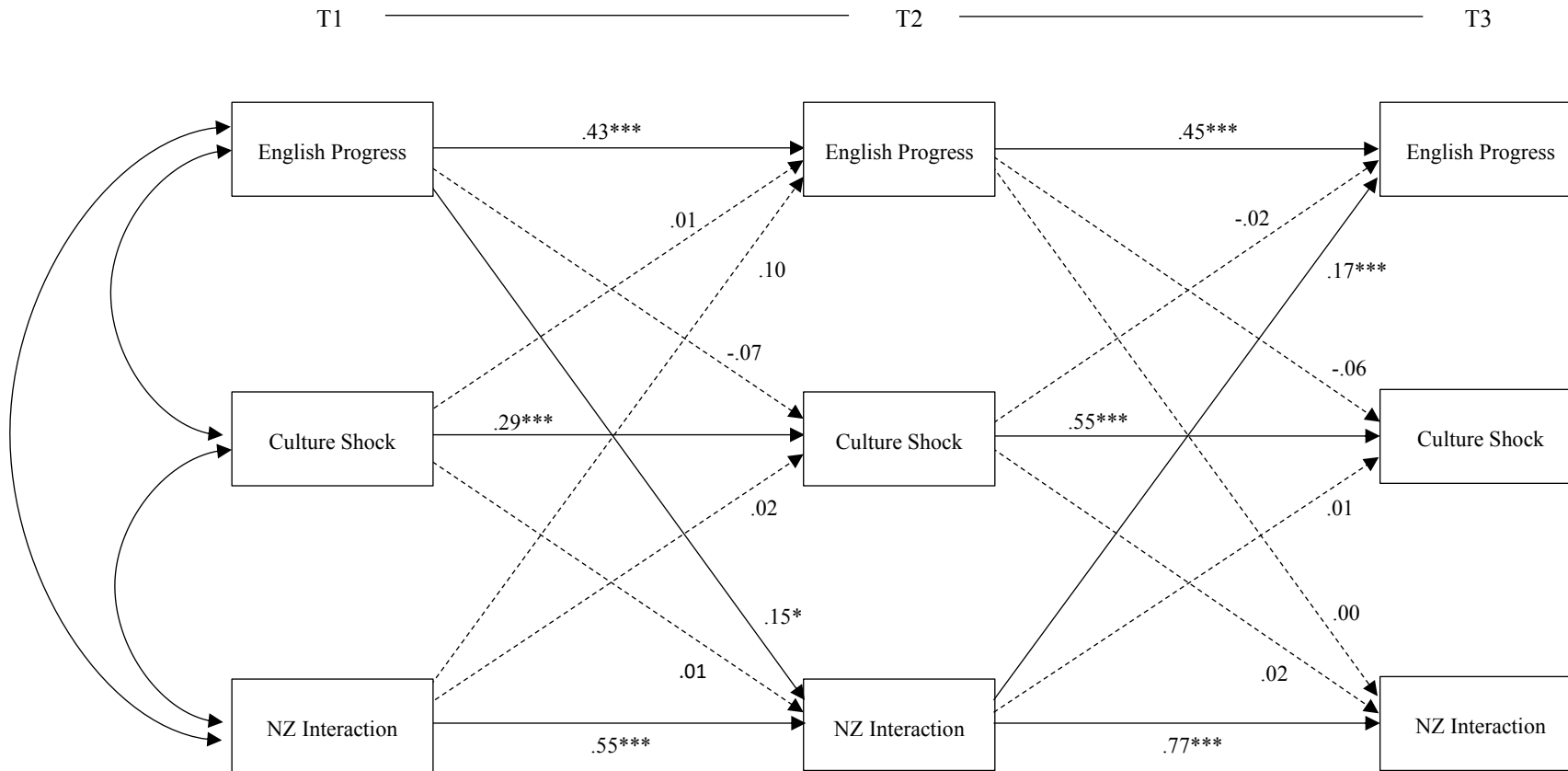
10. Overall, how are you feeling about your experience? [You are feeling that the experience is... (1 = very negative; 3 = neutral; 5 = very positive)]

11. In Brazil, how did you expect it to be? (1 = very negative; 3 = neutral; 5 = very positive)

[CLOSING]

Thanks for talking with me. Anything else that you'd like to mention? We will call you again in 2 to 3 months' time.

Appendix B: Three variable cross-lagged panel model



Note. * $p < .05$. ** $p < .01$. *** $p < .001$.