

**The Effects of Cultural Competence Feedback on Intercultural Anxiety, Attitudes  
toward, and Willingness to Engage with International Students**

by

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## **Abstract**

The study examined the effects of cultural competency feedback on domestic and international students' intercultural anxiety, attitudes toward, and willingness to engage with international students. One hundred and sixty-one students (96 domestic, 65 internationals) completed a test of cultural competency and were randomly assigned to receive positive (top 25%) or negative (bottom 25%) fictitious feedback on their performance. Participants then completed measures of intercultural anxiety, attitudes toward international students, and self-reported willingness to engage with international students. Finally, students accepted or declined an invitation to learn more about participating in a buddy programme for international students at Victoria University of Wellington. It was hypothesized that those receiving negative performance feedback would have higher levels of intercultural anxiety and that this anxiety would partially mediate the effects of performance feedback on attitudes toward and willingness to engage with international students. It was also hypothesized that the effects of intercultural anxiety on attitudes and willingness to engage would be stronger for domestic, compared to international students. Preliminary analyses indicated that the performance feedback did not affect intercultural anxiety; although the manipulation checks showed that the participants could accurately describe their performance feedback, overall, students did not find the feedback credible. Controlling for age, gender, and previous intercultural contact, hierarchical regression analyses were performed to predict attitudes toward international students and willingness to engage (both self-reported and behavioural measures). The results revealed that beyond the control variables, intercultural anxiety was the only significant predictor of self-reported willingness to engage with international students. Performance feedback, student status (domestic/international), intercultural anxiety, and the interaction between student status and intercultural anxiety failed to

predict attitudes toward international students and agreement to be contacted about the buddy programme. The implications of the presented findings are discussed, as well as limitations and future research directions advised.

*Keywords:* Cultural Competence, Intercultural Anxiety, Education, International Students

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Ko te kaupapa.

Ko te whenua.

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## **The Effects of Cultural Competence Feedback on Intercultural Anxiety, Attitudes toward, and Willingness to Engage with International Students**

International students are “internationally mobile students” (UNESCO, 2016) who have physically crossed borders to a foreign country in order to participate in education practices. Since an increasing number of students decide to follow at least parts of their education abroad, the face of academic institutions and educational practices has changed. UNESCO reports that international students have more than doubled from 2 million in 2000 to 5.3 million in 2017 (UNESCO, 2019). By doing so, they have also become an important part of the economy in leading nations that host the majority of international students, including the United States, Russia, The United Kingdom, Germany, France, and Australia. However, smaller nations also receive a significant number of international students, including Aotearoa New Zealand (UNESCO, 2016).

In 2017, Education New Zealand reported that Aotearoa New Zealand had 125,392 international students enrolled in educational institutions. In 2018, an estimate of 5.1 billion was contributed to the New Zealand economy by international students’ enrolment (Education New Zealand, 2018). According to Education New Zealand (2019, p. 8) “International education is currently New Zealand’s fifth largest export industry (\$5.4 billion).” Student visas were reported to have had a 4% increase in 2018, with 77,756 valid student visas, compared to 2017 (Education New Zealand, 2017). Considering the significant number of increasing international students in Aotearoa New Zealand, the importance of research regarding this community is vital.

Due to this clear increase in international students, it is fundamental for us to understand the benefits and risks that increasing numbers of international students can bring,

both on a personal level and an institutional level. An example of a benefit on the personal level for international students is personal growth, as the act of studying abroad and immersing oneself in a new culture can enrich the individual through cultural experiences. However, on the other side, loneliness and isolation can be significant risks for international students, as making connections in a new culture can be a challenge.

An example of a benefit on the institutional level for hosting international students is that they can be a source of cultural awareness, as international students offer a valuable source of culture and knowledge to the institution. However, a significant risk of welcoming international students is that international students can be a source of social discord and fragmentation, since students can lead parallel lives in educational institutions and lack meaningful connections with each other.

To expand into a wider context, Smith and Khawaja (2011) stress how international students are an invaluable source of culture and knowledge not only for educational institutions, but for the country as a whole. These authors report positive outcomes linked to international students including incorporation of diversity and cultural awareness for the institution and society. Moreover, Shafaei, Nejati, Quazi, and Heidt (2016) emphasize how the globalization of higher education has become a salient market for developed countries and their economies. They also note that the socio-cultural and economic benefits of internationalization in higher education have become of vital interest to countries competing in the global market while international education is growing, it is imperative to undertake research about the experiences of international students to protect their well-being and provide a platform for their voices through empirical research.



As internationalization in education continues to become a commodity in today's society, international students can become more vulnerable in institutions that might not have their best interests at heart. For this reason, it is essential to illustrate how enhancing positive experiences for international students, fostering social cohesion, and improving intercultural relations can help educational institutions support integration and maximize the positive resources that international students bring to the institution. By investigating the challenges and needs that this group experiences, we can create a more collective understanding of how to increase students' positive experiences in higher education.

### **Researching Intercultural Relations within Educational Institutions**

Clearly, to be able to investigate factors that can contribute to intercultural relations in educational institutions, we must first address previous research on poor intergroup relations to explore solutions that can improve the disconnect between domestic and international students. For instance, Berry (2017) has argued that the majority of previous research on intercultural relations has used a "one way" view to investigate perceptions of a specific group toward another. For this reason, it is necessary to understand intercultural relations from the mutual perspectives of both international and domestic students. Additionally, when investigating this mutual relationship, it is important to consider both attitudes and behaviours to expand previous literature and uncover more insight to support positive intercultural relations within educational institutions.

### ***The Big Picture: Relations with and Among International Students***

The most fundamental challenge that international education faces, which has been extensively reported by educators, administrators, researchers, and students themselves, is the challenge of international students forming relationships with domestic students (Bochner,

McLeod, & Lin, 1977; Smith & Khawaja, 2011). As intercultural contact results in changes for both groups, it is necessary to understand both perspectives.

Early research tends to suggest that international students prefer to form relationships with co-nationals, indicating that international students are not interested in connecting with domestic students (Bochner, Hutnik, & Furnham, 1985; Furnham & Bochner, 1982). However, Volet and Ang (1998) found that the biggest limitation in regard to domestic and international students forming relationships was the fact that both groups reported having preconceived assumptions regarding the preference of the “other” group wanting to only interact with their co-nationals.

In contrast, recent research has illustrated that international students do wish to connect with domestic students and form friendship bonds (Bethel, 2015; Ward & Masgoret, 2004). Additionally, research has clearly indicated that international students hold more interest in coming into contact with domestic students than vice versa (Beaver & Tuck, 1998). Ward, Masgoret, and Gezentsvey (2009) discuss how social connections between international students and domestic students are known to be dependent on motivation, skills, and opportunities. However, the authors emphasize that a major factor that influences social connectedness is the willingness of the host community to engage in interactions (Ward et al., 2009). As research conducted with domestic students in Aotearoa New Zealand has shown a moderately positive (58%) willingness to interact with international students (Ward et al., 2005), the question remains as to what other underlining factors may be constraining domestic students and international students from engaging with each other.

International students’ relationships have been examined both in connection with domestic students and co-nationals (Bochner et al., 1977; Bochner et al., 1985; Furnham &

Alibhai, 1985; Kashima & Loh, 2006; Ward et al., 2005). Bochner et al. (1985) researched international students relationships within educational institutions by categorizing students into three groups: host nationals, co-nationals, and non-conationals (international students from other backgrounds). Bochner et al. (1985) suggest that for international students, non-conational friendships have been the most frequently reported relationships, above co-national or host nationals. This means that international students form more relationships with other international students that are not from the same culture. However, these three groups have a tendency to serve different functions in terms of the resources they provide to international students. For this reason, it is suggested that forming relationships with all three groups is ultimately beneficial for international students. In line with this argument, Kashima and Loh (2006) focused on exploring the relationship between international students that are developed in host societies. Their results also indicate that there is a positive relationship between ties among international students in a new country and psychological adjustment. Kashima and Loh (2006) also emphasize the limited research dedicated to the relationships formed by international students with non-conational foreign students, stating that this relationship has been neglected in previous research. These studies support the importance of expanding research regarding international students' relationships to fully understand the big picture regarding their experiences in educational institutions with all students (Kashima & Loh, 2006). Moreover, it is important for research to expand intergroup relations literature by incorporating mutual perspectives when investigating international students' attitudes and willingness to engage with other international students.

Additionally, Berry (2017) stresses the need for more research that focuses on these mutual and reciprocal changes that occur when two or more cultures come into contact.

Hereby, two major points are relevant from Berry's argument. First, that relationships tend to be mutual, meaning that if you like my group, I like your group. Second, that there is a status hierarchy, meaning that some groups are liked more than others (i.e., the white majority in Canada; Berry, 2017). Therefore, if we want to understand the factors that affect intercultural relationships, it is not sufficient to look at the perceptions of the dominant group toward the non-dominant or vice versa, we must look at the whole picture and integrate all of the factors that come into play, how their relationships are dependent on each other, and how they unfold in different ways for the majority and minority. Ultimately, to be able to understand these mutual relations between all groups, it is necessary to examine the experience of intercultural contact from multiple perspectives (Chang et al., 2017). For this reason, intergroup theories can provide insight into international students' intercultural interactions and have broader implications for social cohesion at educational institutions.

### ***Moving Beyond Attitudes***

Much of the intergroup research involving international students has focused on attitudes and perceptions (e.g., Spencer-Rodgers, 2001; Spencer-Rodgers & McGovern, 2002; Ward et al., 2009). However, enhancing relationships with and among international students ultimately involves behaviours. While attitudes can influence behaviours (Ajzen, 1991; Albarracín et al., 2003; Glasman & Albarracín, 2006; Fishbein & Ajzen, 1980), Glasman and Albarracín's (2006) meta-analysis indicates that there are many factors that can affect the attitude-behaviour association. Their findings stress that research based on attitudes alone is not sufficient, and it is vital to consider behaviours to connect research to the real-world context.

Ajzen's (1991) theory of planned behaviour illustrates how behavioural intentions are a more effective predictor of behaviour than attitudes, emphasizing how perceptions of behaviour

can directly shape an individual's actual behaviour. In the context of intergroup research, this means that minimally, behavioural indicators of willingness to engage with outgroups should be included in studies. Optimally, actual behaviours should be investigated to gain a more comprehensive understanding of intercultural relations (Ajzen, 1991).

## **Intergroup Relations: Social Psychological Theory and Research**

### ***Contact and Threat***

Social psychological theories regarding intergroup relations provide insight into the ways in which relationships between domestic and international students and within different groups of international students can be enhanced to achieve positive outcomes. Theory and research on contact and threat are particularly relevant in educational settings. Contact is known to be a central positive influence for intergroup perceptions and relations. A meta-analysis by Pettigrew and Tropp (2008) reported that contact on average has a positive effect on intergroup relations and plays a key role in prejudice reduction. However, the positive effects of contact can be enhanced by two optimal conditions: when there is equal status between group members, and when intimate contact occurs when group members are cooperating to achieve a mutually desirable goal (Allport, 1954). There is also evidence to suggest that the positive effects of intercultural contact on intergroup perceptions and relations is stronger for the majority, compared to the minority, group members (Pettigrew & Tropp, 2008). Moreover, Pettigrew and Tropp (2008) discuss how contact can effectively reduce prejudice, one way being by acquiring more knowledge about the outgroup. This suggestion also aligns with Allport's (1954) theory regarding knowledge being an important mediator for the positive effects of contact on intergroup relations (Pettigrew & Tropp, 2008).

In educational settings, contact with hosts not only predicts better adaptation in international students, it is also effective in reducing prejudice (Cao, Meng, & Shang, 2018; Church, 1982; Li & Gasser, 2005). For domestic students, contact has been shown to predict positive attitudes toward international students (Ward & Masgoret, 2004). Spencer-Rodgers and McGovern (2002) also highlighted the importance of contact for the reduction of prejudice toward international students, concluding that domestic students with less intergroup or interpersonal contact hold more stereotypical beliefs. Moreover, while contact is known to enhance intergroup relations in general, the link between contact and positive attitudes is stronger in the majority, compared to the minority, groups (Cao et al., 2018; Church, 1982; Li & Gasser, 2005; Ward & Masgoret, 2004).

Beyond contact theory, the Unified Instrumental Model of Group Conflict (UIMGC) suggests that perceived competition from a salient outgroup affects intergroup relations (Esses, Jackson, & Armstrong, 1998). This theory was developed from the realistic group conflict theory, which argues that discrimination and prejudice are rooted in conflict of interests between groups (LeVine & Campbell, 1972). A fundamental part of the UIMGC theory is the emotional aspect, as competition is associated with anxiety and fear. Consequently, the emotions related to competition lead to the negative intergroup outcomes. This framework emphasizes how perceived group competition for resources is a prominent factor resulting in prejudice, discrimination, and negative emotions between ingroups and outgroups due to the perception of threat. These negative emotions and reactions to competition lead to avoidant behaviour and increase competitiveness between the in- and outgroup. This theory suggests that the most important factors that must be addressed to improve intergroup relations are to lower levels of threatening competition by portraying the resources to be enough for everyone, and to

reduce anxiety and fear by promoting more positive perceptions of intergroup relations (Esses et al., 1998).

Integrated Threat Theory (ITT) incorporates four distinct threats that influence negative intergroup attitudes (Stephan & Stephan, 1985). These threats include *realistic threats* (threats that can cause actual harm to the ingroup), *symbolic threats* (threats to the ingroups' values and beliefs), *negative stereotypes* (negative expectations about the outgroup), and *intergroup anxiety* (Stephan, 2014). Intergroup anxiety is defined as the negative emotions experienced when anticipating an interaction with outgroup members (Mak, Brown, & Wadey, 2014).

ITT underlines how all four factors of threat ultimately produce negative expectations regarding the outgroup. This model has been used to understand the relationship between domestic and international students (Mak et al., 2014; Paige, 1990; Spencer-Rodgers, 2001; Spencer-Rodgers & McGovern, 2002). ITT suggests that all four types of threat are associated with poorer intergroup perceptions and relations. Furthermore, Stephan et al. (2002) have demonstrated that threat exerts stronger effects on intergroup relations for majority groups. In the context of international education, Stephan and Stephan (1996) suggest that the overall level of threat that international students pose is primarily determined by intergroup anxiety, as opposed to the other three types of threat (Stephan, 2014; Stephan & Stephan, 1996).

### ***Crossing Cultural Boundaries: Intercultural Anxiety and Intercultural Competence***

Evidently, the common denominator in both the Unified Instrumental Model of Group Conflict and Integrated Threat Theory is intergroup anxiety. For this reason, it is important to gain greater insight into antecedents and outcomes of intergroup anxiety in the process of forming and maintaining positive intergroup relations. Antecedents of intergroup anxiety include: 1) personality traits, knowledge and abilities; 2) attitudes and previous cognitions, such as distrust

and criticism; 3) personal experience, such as lack of contact or negative contact; and 4) situational factors, such as avoidance (Stephan, 2014). All of these antecedents can determine the amount of intergroup anxiety the individual experiences. More essentially, Stephan and Stephan (1989) suggest that lack of knowledge can have a significant influence on the anxiety experienced during intergroup contact.

Similar to knowledge about outgroups, cultural competence has been shown to play a vital role in reducing anxiety (Bücker, Furrer, Poutsma, & Buyens, 2014). Cultural competence is defined as the acquisition and maintenance of the distinctive cultural skills that are required to function and interact successfully in a new cultural context or with people from diverse cultural backgrounds (Wilson, Ward, & Fischer, 2013). Foldy and Buckley (2017) have argued that emotional antecedents and consequences of cultural competency have been largely overlooked in the literature and deserve greater attention. Indeed, Hammer, Bennett, and Wiseman (2003) found that greater intercultural competence was associated with less intercultural anxiety. Their findings are also in line with research on language learning. Liu (2013) reported that perceived linguistic competency is associated with lower levels of language anxiety and is a positive predictor of the actual use of the learned language. Based on these previous arguments and findings, it is hypothesized that low levels of perceived cultural competence will predict higher levels of intercultural anxiety.

The lack of cultural knowledge and competencies can not only lead individuals to experience fear and anxiety, but may, in turn, also affect their willingness to engage in intercultural interactions. The consequences resulting from intergroup anxiety include: 1) cognitive consequences, such as negative beliefs and biases; 2) affective and emotional consequences, such as fear and anger; and 3) behavioural consequences, such as avoidance or



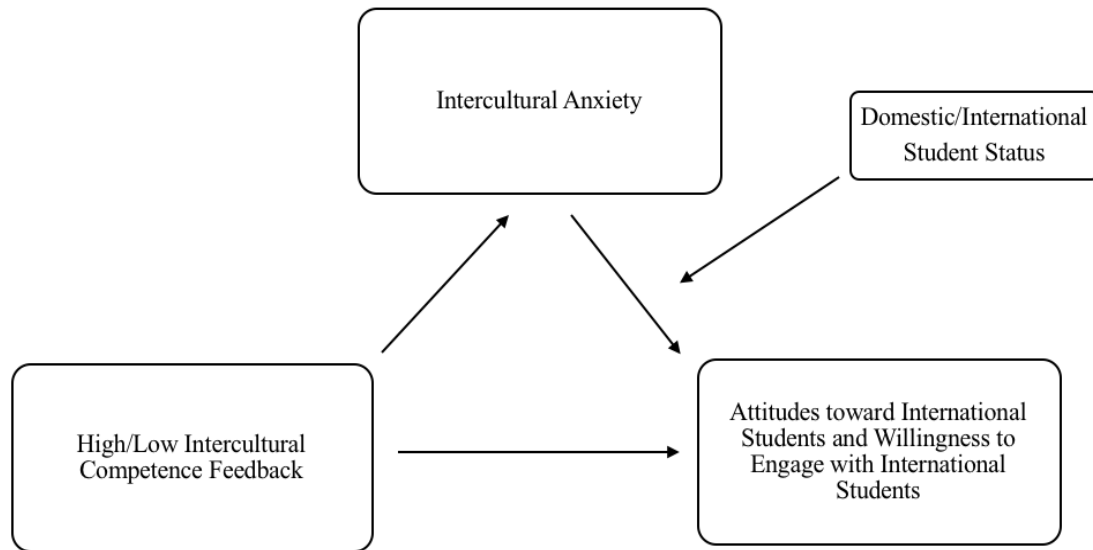
annoyance (Stephan, 2014). Additionally, ITT underlines how intergroup anxiety predicts intergroup attitudes, and there is extensive literature that points to the negative effects of intergroup anxiety on intergroup perceptions and relations, including in international educational settings (Mak et al., 2014; Stephan, 2014; Stephan & Stephan, 1985; Stephan & Stephan, 1992; Stephan et al., 2002). Research has also shown that beyond exerting a negative effect on the outgroup attitudes, intergroup anxiety can mediate the influence of individual differences on attitudinal outcomes. Stephan, Stephan, and Gudykunst (1999, p. 619) concluded that: “The consequences of anxiety are amplified cognitive, affective, and behavioural responses, most of which are negative in intergroup contexts”.

Derived from previous literature, I hypothesize that intercultural anxiety will predict more negative attitudes toward and less willingness to engage with international students. However, as Riek, Mania, and Gaertner’s (2006) meta-analysis demonstrated that intercultural anxiety is a stronger predictor of outgroup attitudes for high status and majority groups, it is also hypothesized that its effects on both attitudes and willingness to engage will be stronger for domestic students than for international students.

### **The Present Study**

This present study extends past research in three key ways. First, it adopts an experimental approach to investigate causal antecedents of intercultural anxiety, in contrast to prior predominantly survey-based research. Second, this study is distinctive because it integrates a broader perspective in line with Berry’s (2017) framework by looking at the experiences of both international and domestic students. Lastly, this study moves beyond previous attitudes research by including both a self-reported and a behavioural indicator of willingness to engage with international students.

The study will examine the effects of perceptions of experimentally-manipulated intercultural competence feedback on international and domestic students' intercultural anxiety, attitudes toward, and willingness to engage with international students in a mediational model.



**Figure 1.1:** Hypothesized Model

The hypotheses are:

1: Participants receiving low intercultural competence feedback will have higher levels of intercultural anxiety than those receiving high intercultural competence feedback.

2: Controlling for contact with international students, intercultural anxiety will predict more negative attitudes toward international students and less willingness to engage with international students.

3: The effects of intercultural competence feedback on attitudes toward international students and willingness to engage will be partially mediated by intercultural anxiety.

4: Student status (international/domestic) will moderate the effects of intercultural anxiety on attitudes toward international students and willingness to engage with stronger effects found in domestic, compared to international, students.

## Methods

### Participants

A total of 161 students participated in the experiment, including 96 domestic students and 65 international students. Sixty-four responses were omitted from the final sample due to completing less than 80% of the materials or withdrawing consent for participation. After addressing missing values, a total of 96 participants remained in the dataset for analysis (Domestic students = 64, International students = 32).

A total of 27 countries were represented in the sample, with New Zealand ( $N = 51$ ), United Kingdom ( $N = 6$ ), and United States ( $N = 5$ ) capturing the largest cultural groups within the study. The age of the sample ranged from 18 to 45 years old (Domestic students  $M = 21.64$ ,  $SD = 4.12$ , International students  $M = 28.03$ ,  $SD = 6.39$ ). Additionally, length of residence in Aotearoa New Zealand for international students had a broad range, from 2 months to 60 months ( $M = 16.50$ ,  $SD = 15$ ). Finally, a modal response of 47% of international students reported having “very much” contact with other international students; in contrast 38% of domestic students reported having “little contact” with international students.

### Procedures

After obtaining ethics approval from the School of Psychology Human Ethics Committee (SoPHEC), domestic and international students were recruited in collaboration with Victoria International at Victoria University of Wellington. An advertisement was distributed via email and Facebook to members of Victoria International Leadership Programme, Victoria University of Wellington’s International Students’ Association, and Victoria International Student Clubs inviting students to participate in an online study regarding cultural competence and intercultural

relations. The advertisement included a brief explanation of the online study and provided the link to redirect interested participants to the study. See Appendix A.

The survey site included an information sheet to ensure informed consent, the experimental and survey materials, and a debriefing statement. Participants were given the opportunity to enter a draw to win 1 of 6 \$50 food vouchers as a token of appreciation. Contact information was provided through a separate platform, so this could not be linked to survey responses. See Appendix C.

### **Design and Experimental Manipulation**

The design for this study implemented an experimental manipulation for both domestic and international students by providing participants with randomized performance feedback after completing a test of cultural competency. Participants were then given a post-test questionnaire with manipulation checks and measures of intercultural contact, intercultural anxiety, attitudes toward, and willingness to engage with international students.

After completing a Cultural Competency Test (CCT), participants in both groups, i.e., international students and domestic students, were randomly assigned to receive fictitious performance feedback. The CCT included 10 scenarios regarding multicultural interactions with individuals from different cultures. Participants were presented with a critical incident involving members of different cultures and were asked to select the most culturally appropriate explanation for the character's behaviour. The scenarios were ambiguous enough to ensure that the participants would not feel like they were certain about getting the correct responses. The scenarios for this test were extracted from Gropper's (1996) book on "*Culture and the Clinical Encounter*" (see Appendix B). After the participants completed the CCT test, they were randomly assigned to a manipulated performance feedback that either informed the

participants that they scored in the highest 25<sup>th</sup> percentile or the lowest 25<sup>th</sup> percentile of the test. Participants were then provided with the post-test questionnaire, debrief, and option to enter draw to win a voucher.

## **Materials**

The post-test questionnaire included the manipulation checks and measures of contact, intercultural anxiety, attitudes toward international students, and willingness to engage with them.

### ***Background Information***

Demographic information regarding age, country of birth, gender, student status, and amount of contact with international students was collected before the experiment.

### ***Manipulation Check***

Two questions were implemented as a manipulation check to assess the credibility of the manipulated performance feedback. The questions included: “*Compared to other students, how well did you do on the test for intercultural competency?*” Respondents used a 3-point rating scale ranging from *lower than average* (1) to *above average* (3). And “*On a scale of 0-100, how would you rate your performance in the intercultural competency?*” Respondents used a 100-point rating scale ranging from *very poor* (0) to *extremely well* (100). We also probed the manipulated feedback to test for perceived accuracy by asking: “*How accurate do you think the test was in assessing your intercultural competency?*” on a 5-point scale from *not at all accurate* (1) to *extremely accurate* (5).

### ***Contact***

Participants indicated the amount of interaction they typically experience in the academic and social domains with international students. The contact measure was taken from Ward et al.

(2005), who used six questions regarding interaction with international students in the academic (e.g., doing exam revision) and social (e.g., spending time in the holidays) domains. Respondents used a 4-point Likert scale ranging from *never* (1) to *often* (4) so that higher scores indicate more frequent contact with international students ( $\alpha=0.85$ ).<sup>1</sup> See Table 1 for the psychometric properties of the measurement scales.

### ***Intercultural Anxiety***

The Intercultural Anxiety Scale was developed by Stephan and Stephan (1992) to assess the likelihood of experiencing anxiety when coming into contact with individuals from other cultures. The measure provides instructions to the participants by offering a prompt that says: *“The following set of questions concerns situations you could find yourself in when interacting with international students. Please indicate how you would react to these situations”*. This study included five items from the Intercultural Anxiety Scale such as: *“going to a small party, spending time with member of opposite sex”*. Respondents used an 8-point Likert scale ranging from *not at all nervous* (1) to *extremely nervous* (8) with higher scores reflecting greater anxiety ( $\alpha=0.71$ ).

### ***Attitudes toward International Students***

The Attitudes toward International Students scale developed by Ward et al. (2005) is a measure created to assess the attitudes that domestic students hold toward international students. In this study the instrument was used to measure the attitudes of international and domestic students toward international students (or other international students). The measure

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<sup>1</sup> Here and in the following measures the survey was worded “international students from cultural backgrounds different to your own” for international student participants.

includes 11 items such as: “*International students have many qualities I admire, International students have made an important contribution to my school*”. Respondents used a 5-point Likert scale ranging from *strongly agree* (1) to *strongly disagree* (5) so that higher scores indicate more negative attitudes toward international students ( $\alpha=0.89$ ).

### ***Willingness to Engage with International Students***

Willingness to engage with international students was assessed by two measures: 1) self-reported willingness and 2) a behavioural indicator of willingness. First, participants were asked to rate how willing they are to interact with international students. The willingness measure included four items such as: “*How likely are you to help an international student in your class, How likely are you to make friends with an international student?*”. Respondents used a 4-point Likert scale ranging from *not at all* (1) to *very likely* (4). Higher scores represent greater willingness to engage ( $\alpha=0.86$ ).

Second, participants were prompted with an advertisement for a buddy programme being developed at Victoria University of Wellington for both New Zealand and international students to be partnered with international students. The participants were instructed to tick yes in the box provided if they are interested in participating in the buddy programme and are willing to be contacted with further information (see Appendix C). With the addition of this item, we were able to assess a behavioural indicator of willingness to interact with international students.

## **Results**

The results are reported in two sections: the Preliminary Analyses, which includes the manipulation checks, psychometric analyses and scale intercorrelations, and the Hypothesis Testing. To complete the analyses, IBM SPSS Statistics 26 and R version 1.1.442 (packages

tidyverse, lavaan, psych, car, semTools, userfriendlyscience, lavaan, and processR) software were utilized.

## **Preliminary Analyses**

### ***Manipulation Checks***

An independent sample t-test analyses was performed to compare the means of the two conditions of the performance feedback manipulation (high/low). Results indicated that participants accurately reported their performance in relation to the fictitious feedback. Item 1 on a 3-point rating scale ranging from *lower than average* (1) to *above average* (3):  $t(94) = 17.18, p = .001$  ( $M_h = 2.81, SD = .40, M_l = 1.26, SD = .49$ ) and Item 2 on a 100-point rating scale ranging from *very poor* (0) to *extremely well* (100):  $t(93) = 3.37, p = .001; M_h = 83.94, SD = 81.79, M_l = 58.29, SD = 23.75$ . However, results for the accuracy probe indicated that participants did not see the feedback as an accurate indicator of their cultural competency level with means less than the midpoint of 3, and those in the low performance feedback condition viewing their feedback as significantly less accurate than those in the high performance feedback condition:  $t(92) = 2.85, p = .005; M_h = 2.88, SD = .95, M_l = 2.35, SD = .84$ .

### ***Psychometric Analyses***

Psychometric analyses were conducted to measure reliability for the measurement scales. Results demonstrated adequate reliability for all scales. See Table 1 for the psychometric properties of the measurement scales.



Table 1. Scale Reliabilities, Descriptive Statistics, and Intercorrelations

	$\alpha$	No. of Items	Range	$M$	$SD$	1	2	3
1. ATIS	0.89	11	1-5	3.34	.53			
2. IA	0.71	5	1-8	4.18	1.28	-.09		
3. SRWE	0.86	4	1-4	3.29	.65	.42**	-.16	
4. Contact	0.85	6	1-4	2.33	.81	.20	-.05	.52***

Notes. ATIS, Attitudes toward international students; IA, Intercultural anxiety; SRWE, Self-reported willingness to engage.

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .

### **Intercorrelations**

Correlations between measurement scales were examined to assess relationships. Results indicated that contact ( $r = .52, p = .001$ ) and attitudes ( $r = .42, p = .001$ ) were positively related to self-reported willingness to engage with international students. Intercultural anxiety was not found to be significantly related to either attitudes or willingness to engage with international students. See Table 1 for complete results.

### **Hypothesis Testing**

#### ***The Effects of Performance Feedback***

To test the effects of performance feedback on intercultural anxiety we conducted an independent sample t-test (H1). Results indicated no significant difference between the manipulated feedback conditions and intercultural anxiety:  $t(94) = -.27, p = .79; M_h = 4.15, SD = 1.26, M_l = 4.22, SD = 1.31$ . Therefore, H1 was not confirmed. As performance feedback was unrelated to intercultural anxiety, the mediational model (H3) was not tested.

#### ***Predicting Attitudes and Self-Reported Willingness***

Two hierarchical linear regressions were conducted to predict attitudes and self-reported willingness to engage with international students. For all regressions, age, gender, and contact

were incorporated into the first step as control variables (Model 1). In the second step, performance feedback, student status (SS) and intercultural anxiety (IA) were added (Model 2), and in the final step the 2-way interaction terms between student status and intercultural anxiety were entered (Model 3). In both cases, multicollinearity diagnostics were conducted, and the VIF was less than 10. [Gender (male = 0, female = 1), Student status (domestic student = 0, international student = 1), Feedback (high = 1, low = 2)].

No significant predictors for attitudes toward international students emerged from the first regression. The results obtained with the second regression indicated that both contact ( $\beta = .44, p = .001, t = 4.69, CI [.206, .510]$ ) and IA ( $\beta = -.19, p = .04, t = -2.13, CI [-.192, -.007]$ ) predicted self-reported willingness to engage with international students as hypothesized. More contact and less intercultural anxiety predicted greater self-reported willingness to engage with international students. However, performance feedback was not found to be a significant predictor for self-reported willingness to engage. Model 3 added an interaction term including student status and intercultural anxiety to predict attitudes toward and willingness to engage with international students. We did not find any significance with this addition for Model 3; therefore, we interpreted the findings from the second step (Model 2) as is the common convention. The final results can be seen in Table 2.

*Table 2. Linear Regression. Dependent Variables: Attitudes toward international students and self-reported willingness to engage with international students*

<i>Step</i>	<i>Attitudes toward international students</i>			<i>Self-reported willingness to engage</i>		
	<i>1</i>	<i>2</i>	<i>3</i>	<i>1</i>	<i>2</i>	<i>3</i>
1. Age	.00	.05	.07	.19	.15	.17
1. Gender	.02	.02	.03	.01	-.02	-.01
1. Contact	.19	.21	.19	.49***	.46***	.44***
2. Student Status		-.07	-.07		.13	.13
2. IA		-.08	.02		-.19*	-.10
2. Feedback		.06	.07		.12	.12
3. SSxIA			-.17			-.14
R <sup>2</sup>	.039	.053	.069	.301	.355	.366
ΔR <sup>2</sup>	.039	.014	.016	.301	.053	.011

*Notes.* IA, Intercultural Anxiety; SS, Student Status; Student status was coded 1 = international and 0 = domestic; Feedback was coded 1 = high, 2 = low.

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .

### ***Predicting Behavioural Intentions***

The final analysis plan was a hierarchal logistic regression, where we measured the dichotomous behavioural variable of willingness to engage with international students. For the regression, age, gender, and contact were incorporated into the first step as control variables. In the second step, performance feedback, student status (SS), and intercultural anxiety (IA) were added. The final step incorporated the 2-way interaction term between student status (SS) and intercultural anxiety (IA). We did not find any significant predictors of behavioural intentions, and the overall model correctly classified only 54.3% of the participants. The results of the hierarchal logistic regression are reported in Table 3. Overall there was only limited support for H2 and H4.

Table 3. Logistic Regression. Dependent Variable: Behavioural intention to pursue the buddy programme.

Predictor	Model 1					Model 2					Model 3				
	B	SE(B)	OR	W	p	B	SE(B)	OR	W	p	B	SE(B)	OR	W	p
Constant	-.48	1.15	.62	.17	.68										
Age	-.00	.04	1.00	.004	.95										
Gender	.14	.48	1.15	.08	.78										
Contact	.15	.26	1.16	.34	.56										
SS						.06	.56	1.07	.01	.91					
IA						.098	.17	1.10	.33	.57					
Feedback						-.15	.43	.86	.13	.72					
IAxSS											.32	.47	1.37	.46	.5
Summary statistics			X <sup>2</sup>	df	p			X <sup>2</sup>	df	p			X <sup>2</sup>	df	p
Hosmer and Lemeshow			5.94	8	.65			10.70	8	.22			5.80	8	.67

Notes. IA, Intercultural Anxiety; IAxSS, Interaction term Intercultural Anxiety by Student Status; Student status was coded 1 = international and 0 = domestic; Feedback was coded 1 = high, 2 = low.

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .

## Discussion

### **Intercultural Relations in Educational Settings**

We used an experimental design to examine the effects of cultural competency performance feedback on intercultural anxiety, attitudes toward, and willingness to engage with international students. We hypothesized that higher perceived intercultural competence would diminish intercultural anxiety (H1), and directly and indirectly predict more positive attitudes toward international students and greater willingness to engage with them (H2, H3). We also hypothesized that the association between intercultural anxiety, attitudes, and willingness to engage would be stronger in domestic, compared to with international students (H4).

The results provided limited support for these hypotheses. Although the results indicated that the performance feedback did not affect intercultural anxiety (H1), we found that more contact with international students and lower levels of intercultural anxiety predicted greater self-reported willingness to engage with international students (H2). These results indicate that contact, as consistently reported in previous studies, is a vital factor that influences intercultural relations (Pettigrew & Tropp, 2008). Likewise, the results suggest that it is important to find ways to lower the levels of intercultural anxiety that students experience within the educational environment in order to enhance intercultural relations. Finally, the results revealed that H4 was not supported as there were no significant predictors found for behavioural intentions. These findings will be explored and discussed in this section.

The preliminary analyses suggested that performance feedback did not affect intercultural anxiety. There are several possible reasons for this finding worth discussing. Importantly, the results suggest that students did not perceive the performance feedback as a credible reflection of cultural competency. An interesting finding in relation to the performance feedback is that

participants in the low feedback condition were less likely to consider the Cultural Competency Test (CCT) as accurate. This finding indicates that participants that were told they scored in the bottom 25<sup>th</sup> percentile of the test, although accurately reported their score, did not find it to be a credible measurement of cultural competency. However, since it could be argued that cultural competency does not actually relate to intercultural anxiety, it is necessary to mention the past research findings that argue against this claim. Based on previous literature (Bücker et al., 2014; Foldy & Buckley, 2017; Gudykunst, 1995; Gudykunst, 1998; Hammer et al., 2003; Stephan & Stephan, 1989), it is clear that there is in fact an important relationship between cultural competency and intercultural anxiety. Gudykunst (1998) supports this argument within the theory of Anxiety-Uncertainty Management (AUM). AUM emphasizes that anxiety and uncertainty are vital factors that affect intercultural adjustment (Gudykunst, 1995; Gudykunst, 1998). Likewise, Bücker et al. (2014) provides evidence to support the argument that cultural competence plays a critical role in reducing anxiety. For this reason, we must consider other reasons that might reveal why the performance feedback did not work. Another possibility may be that students were not affected by the feedback because in fact, the CCT was not a credible method to convince participants that their cultural competency was being accurately measured, therefore; failing to influence their own perception of their cultural competency level.

Ultimately, considering the essential role of cultural competence when it comes to intercultural anxiety, it is fundamental to further explore possibilities to investigate this interplay in the future.

The results did show that both contact and intercultural anxiety predict self-reported willingness to engage with international students. These results align with previous literature in contact theory, that states that contact is a key positive predictor of intergroup perceptions (Allport, 1954; Pettigrew & Tropp, 2008). The wider literature provides significant evidence for

the effects of contact on intergroup relations, including how contact leads to increase in knowledge, that in turn reduces stereotypes and prejudice (Allport, 1954; Pettigrew & Tropp, 2008). Additionally, Pettigrew and Tropp (2008) underline the cognitive and emotional benefits linked to intergroup contact, such as perspective taking, that allows individuals to understand the perspective of outgroup members, which leads to a better ability to share empathy regarding a broader range of issues experienced by other cultures. Ultimately, the literature aligns with the findings as they both support the crucial role that intergroup contact can have on lowering the levels of intercultural anxiety, and therefore leading to more positive intercultural relations.

Furthermore, our findings align with the wide literature by demonstrating a significant relationship between lower reported levels of intercultural anxiety and more willingness to engage with international students. Correspondingly, theory and research provide evidence of the role intercultural anxiety plays in intergroup encounters. Integrated Threat Theory (ITT) identifies this anxiety as a major threat that has detrimental effects on intergroup relations (Mak et al., 2014; Paige, 1990; Spencer-Rodgers, 2001; Spencer-Rodgers & McGovern, 2002; Stephan, 2014; Stephan & Stephan, 1996). Highlighting the fear and apprehension that individuals experience when interacting with outgroups, ITT emphasizes that reducing the level of perceived threat and intercultural anxiety increases the likelihood that individuals will engage with other cultures (Stephan & Stephan, 1992).

Our study failed to find an interaction effect between intercultural anxiety and student status (domestic versus international students). Literature supporting the argument that the effect of threat has been found to be stronger for the majority group, have only researched this relationship in terms of minorities perspective toward the majority (Riek et al., 2006; Shelton, 2003). In contrast, since our study incorporates the mutual relationship between groups by also

investigating the perception of international students toward other international students, this may lead to explain why the findings did not align with previous research. However, this gap in the research highlights the need for more focus to be given to inclusive research that looks at the mutual and reciprocal relationship between majority/minority groups and among minority groups. Future research is advised to expand this framework by incorporating the perspective of international students toward host students as well to achieve a broader understanding of the mutual and reciprocal relationships across all student groups at educational institutions.

More pertinent, we must acknowledge the fact that the vast amount of research based on investigating intercultural relationships comes from literature on attitudes. For this reason, this study was based on attitude theory and research (Ajzen, 1991; Albarracín et al., 2003; Fishbein & Ajzen, 1980; Glasman & Albarracín, 2006). However, it was argued throughout this thesis that research must move beyond attitudes to understand the predictors of intercultural behaviours. Our findings pose a question regarding why the study found self-reported willingness to engage with international students to be a significant indicator for intercultural relationships, but did not find attitudes toward international students to have the same significance. An explanation for this finding may be that for self-reported studies, behavioural intentions, such as willingness to engage, has a greater ecological validity than attitudes. Ajzen (1991) supports this theory as the theory of planned behaviour argues that individuals are more prone to report an accurate description of their actual behaviour when responding to questionnaires about planned behaviour, instead of perceived attitudes.

Interestingly, we did not find any predictors for the behavioural indicator of willingness to engage. This finding poses an urgent question regarding the external validity of previous literature that relies solely on self-reported behavioural intentions, rather than actual behaviours



(Ajzen, 1991; Glasman & Albarracín, 2006; Jiang, Lu, Hou, & Yue, 2013). Norwood, Hughes, and Amico (2016) stress how behavioural research often relies on self-reported behaviour, despite the fact that individuals tend to under-report behaviours that they perceive as stigmatized. Likewise, questioning students on their behavioural intentions toward a vulnerable minority group can also be perceived as a sensitive topic that participants do not feel comfortable about self-reporting, possibly due to fear of judgement, prejudice, or racism. The literature to date clearly under investigates actual behaviours; it is important for research in this area to broaden into actual behavioural research, to examine the dynamics that are happening in the real-world context when investigating intercultural relations.

### **Strengths, Weaknesses, and Future Research**

This study offers novelty for the literature by applying an experimental design to investigate the effects of cultural competence performance feedback as a predictor of intercultural anxiety. This approach expands the literature because prior research has primarily focused on survey-based research in this area (Bochner et al., 1977; Cao et al., 2018; Ward et al., 2005). Moreover, in line with Berry's (2017) acculturation theory, this study incorporates a mutual and reciprocal perspective by exploring the experiences of both international and domestic students. Equally pertinent, this design contributes to intergroup literature by moving beyond attitudes research by implementing a behavioural indicator, in addition to the common convention of self-report scales, as a measurement of willingness to engage with international students. Overall, these novel features contribute significantly to the literature by broadening research on intercultural relations and offering new perspectives to further our understanding in the area.

Furthermore, this study offers insight regarding the perceptions of international students toward other international students. This study provides a broader understanding by giving international students a platform to express their perceptions of and relations with other international students within educational institutions. Based on Berry's (2017) work, we find this focus to be an essential perspective that needs to be explored more within research on intercultural relations within educational institutions. By including the perspective of not only domestic students toward international students and vice versa, but also the perspectives of international students toward other international students, we can provide a bigger picture on the experiences of all students within the university. Ultimately, by implementing a more inclusive perspective, we can explore more effective ways of offering students the support and tools they deserve within educational institutions to have a more positive experience.

Despite these positive features, the study's limitations must also be acknowledged. Although participants responded to the manipulation check items accordingly, the cultural competence performance feedback did not have a significant effect on the participants anxiety, attitudes toward, or willingness to engage with international students, since the participants did not consider the competence test to be an accurate measure of cultural competency. Furthermore, these results pose a question regarding if it was actually cultural competence as a predictor or the effectiveness of the false feedback that resulted in the non-significant results. Future research is advised to investigate a more credible way to manipulate and measure students' intercultural competence, such as a more difficult test, or an actual cultural training workshop, to be able to explore more effectively the relationship between cultural competence and intercultural anxiety. Additionally; a larger, balanced, and more representative sample would have as well contributed

to a broader understanding on international students' perspectives toward other international students.

A key limitation that must be discussed is the behavioural intention check incorporating the buddy programme. A key problem with the results is the fact that there were no predictors found for behavioural intentions. It is recommended that future research incorporates measures of actual behaviours regarding engagement with international students, instead of self-reported behaviours, which can result in loss of valuable real-world context data. It is also fundamental to emphasize the importance of moving beyond behavioural intentions research into actual behaviour research to expand the understanding of intercultural relations.

Additionally, it should be mentioned that international students were treated as homogenous group, despite the fact that there are countless distinct cultures within this group. For this reason, as well as the limited number of participants we were able to recruit, we were not able to conduct invariance testing to confirm if the scales were adequate measurements for the demographic being studied. Future research is advised to find a more effective method of acknowledging and representing the distinct number of cultures within international students to be able to provide a more accurate picture of the cultural dynamics within the international student context.

Regardless of the stated limitations, the present study incorporated an original design by incorporating experimental methods to investigate the perceived cultural competency of both domestic students and international students regarding international students. It is recommended that future studies develop an inclusive design that is further representative of the student body, as well as to use a more effective manipulation that can investigate the relationship between cultural competency and intercultural anxiety within a more flexible timeframe. Furthermore,

while this study used quantitative data, by incorporating a mixed method approach to obtain qualitative data, important themes for enhancing perceived cultural competency and intercultural relations can be highlighted in future research.

### **Conclusion**

As stressed by UNESCO (2019), international students will continue to grow and become a pivotal resource to hosting countries. While our globalized world continues to diversify, our research must also continue to work on representation of diversity and inclusion. Overall, this study emphasizes that intercultural relations within educational institutions research is far from complete.

The insight this study provide are certainly beneficial for the advancement of research on intercultural settings and can be followed as an example of how to be more inclusive and representative of the community being investigated. It is clear that western psychology frequently fails to include minorities' perspectives within its frameworks and it is our duty as researchers to do better and find ways to offer minorities platforms to share their valuable knowledge and experience. International students are just one example of minority groups that have been consistently overlooked or used for only economic interests. It is necessary for research to deconstruct the barriers within educational institutions that restrict the success of all students. Furthermore, domestic students and institutions are also affected by this disconnect as it leads to loss of valuable knowledge that can be pivotal within the educational experience. For this reason, the aim of this study is to contribute to the advancement for research of intercultural relations within educational institutions, as well as highlight the responsibility that researchers and educational institutions hold to do better and provide more support and platforms to uplift the communities that have been overlooked throughout history.

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**Appendix A**  
**Recruitment Flyer**



Kia ora Students!

Would you like to share your views about your experiences at VUW?  
If so, we invite you to participate in a short on-line survey about intercultural competence and intercultural relations.  
Participate and be eligible to enter a draw for one of six \$50 food vouchers!

Interested? Go to [http://vuw.qualtrics.com/jfe/form/SV\\_b9qzIxp8N3T0HfD](http://vuw.qualtrics.com/jfe/form/SV_b9qzIxp8N3T0HfD) for more information

Or contact: Natalia Zenoni at [REDACTED] or Colleen Ward at [REDACTED]

This research has been approved by the School of Psychology Human Ethics Committee under delegated authority of Victoria University of Wellington's Human Ethics Committee. Ethics Application: [REDACTED]

## Appendix B

### Cultural Competency Test (CCT)

(Gropper, 1996)

Please read carefully the following scenarios regarding situations involving different cultures and choose the best option in each situation.

1. The Wrong Grade (p.72)

Maria is a Puerto Rican student enrolled in Dr. Hart's health education course. Dr. Hart returns a recent examination to the students with the incorrect answers marked with a red X. In going over the test, Maria realizes that Dr. Hart has marked several of her correct responses as wrong and has deducted points. Correcting the difference in the points would be enough to change her grade from a C to a B, but Maria says nothing and accepts the examination grade as is. Why does Maria not say anything?

Possible Explanations

- (1) She doesn't care what grade she gets because she doesn't like the course anyway.
- (2) She probably views Dr. Hart as an authority figure who should not be questioned or challenged.
- (3) She figures she can make up the lost point on next examination.
- (4) She likes Mr. Hart and doesn't want to embarrass him.

2. The Nigerian Student (p.70)

Thomas Oletunde, a student from Nigeria who has been in New Zealand for less than six months. He just turned in his essay assignment for Dr. Dart's health education class. In reading the paper, Dr. Dart discovers that Thomas has included five paragraphs from an article that had been a required reading for the class without crediting the material to its source, and without indicating the wording is an exact quotation. What should Dr. Dart do?

Possible Explanations:

- (1) Dr. Dart should ask Thomas to see her for a private conference, during which she can explain NZ concepts of plagiarism and ask him to rewrite and resubmit the assignment.
- (2) Dr. Dart should give Thomas a failing grade and report him to the director for disciplinary action.
- (3) Dr. Dart should send a letter to Thomas's parents, asking one of them to come to school to discuss the matter with her.
- (4) Dr. Dart should return the paper to Thomas with a grade of F without further comment.

### 3. The Party (p.12)

Tranh Khanh, a young Vietnamese student, has been a volunteer at Victoria International for almost a year. She is exceptionally liked by the students and the staff. So, when a private party celebrating Trudi Shaw's engagement was held at work by the staff, everyone wanted Tranh to have some of the refreshments and join the festivities for a while. Millicent Abbott was asked to invite Tranh discretely into the staff room. When Millicent opened the corridor door, she saw the young volunteer standing across the crowded waiting room. Catching Tranh's eye, Millicent extended her right hand, palm up, and crooked her index finger to gesture that she wanted Tranh to come over to her. Much to her surprise, Tranh stepped back and then abruptly left the corridor. The next day, Tranh's older sister telephoned to say that Tranh would not be returning to the University. Why did Tranh leave?

Possible Explanations:

- (1) Millicent used a gesture that Vietnamese only use to summon a dog, so Tranh thought Millicent wanted to insult her.
- (2) Tranh was embarrassed that she did not bring a present for Trudi
- (3) Tranh suddenly got an offer for a paying job and couldn't face anyone to explain.
- (4) Tranh thought Millicent was telling her to leave.

#### 4. The Roommates (p.36)

Henry Cook has shared many classes with Nhak Bun, an émigré from Cambodia, during his senior undergraduate year at Victoria University of Wellington. The two men got along well, and when they discovered they were both going to attend the same medical school, they made arrangements to share a dormitory room together.

During their first week at medical school, the flatmates studied together, sympathized with each other's problems, and gave each other moral support.

Then, one evening Henry went back to his room early to study, and Nhak attended a campus recital. Henry was sitting with his feet propped up on his desk when his roommate returned. Being very comfortable and a little sleepy, Henry just waved hello and went back to his reading. Much to his surprise, Nhak left their room and did not return. The next day, a staff member packed up Nhak's belongings and removed them, telling Henry that Nhak had asked to be relocated. Henry was shocked and at a loss to explain what had happened. Can you enlighten him?

##### Possible Explanations

- (1) Nhak's feelings were hurt because Henry did not ask him whether he had enjoyed the concert.
- (2) Nhak had just found out he had failed the last examination he and Henry had taken and was so ashamed of himself that he could no longer face his flatmate.
- (3) Henry's failure to accompany his flatmate to the recital was interpreted as a rejection of their relationship.
- (4) Cambodian etiquette says exposing the soles of one's feet to view is an intolerable offense to the individual who sees them.



5. The Nutrition Class (p. 76)

José, who recently immigrated to New Zealand from the Dominican Republic, is a student in the introduction to nutrition class. His teacher, Ms. Beltcher, is very upset with José because he has failed to complete a required assignment. Ms. Beltcher reprimands him and becomes further angered when she observes that he is not looking at her and has his head lowered. She shouts at him, “Look at me when I speak to you!” Why did José not look at Ms. Beltcher when she was reprimanding him?

Possible Explanations:

- (1) He was being defiant
- (2) He wanted to show her he was not interested in what she was saying
- (3) Engaging in eye contact during this exchange would have been disrespectful.
- (4) He wanted to convey apathy.

6. Katherine Low (p. 86)

Katherine Low, a Chinese-New Zealander student in Dr. Malcom's sex education class, taps lightly on the open office door and asks if Dr. Malcom can spare a few minutes to talk to her. Dr. Malcom, who has become very friendly with Katherine, invites her to sit down and reminds her that these are regular office hours to see students individually. Since Katherine seems nervous, Dr. Malcom closes her office door and says, "Now we can speak privately without being disturbed. What is it you wanted to talk about?" After some encouragement, Katherine tells Dr. Malcom that she, her father, and two brothers have been in New Zealand for only one year, her mother having died before the family immigrated. They have no other relatives here. Katherine's menstrual periods have become erratic and very painful, with occasional haemorrhaging. She is worried and wonders what she should do. Dr. Malcom refers her to a free clinic for women near the school and reassures her that the staff is courteous, friendly, and highly competent. Dr. Malcom telephones the clinic, after obtaining Katherine's permission, and arranges an appointment for her.

"Well, I hope everything will be okay," concludes Dr. Malcom in a hearty tone of voice. "Do feel free to come back to talk to me at any time."

Katherine does not show up for class the next week, and Dr. Malcom is informed that Katherine dropped out of the class. Why did Katherine want to drop out of Dr. Malcom's class?

Possible Explanations:

- (1) Katherine thought Dr. Malcom was angry with her, so she wanted to avoid dealing with this teacher in the future.

- (2) Katherine was angry at Dr. Malcom because the teacher called the clinic. She thought Dr. Malcom was not confident that Katherine knew how to make an appointment over the telephone.
- (3) Katherine regretted mentioning her personal problems to Dr. Malcom and wanted to avoid her.
- (4) Katherine was unable to keep her appointment at the clinic, and she didn't want Dr. Malcom to find out.

7. The Mexican Sister (p.92)

Lisa Mendez is a Mexican student in Dr. Curran's health education class. One Saturday morning Dr. Curran encountered Lisa on the street. The student is pushing a stroller with a year-old baby, who is well nourished, active, and smiling. Without being asked, Dr. Curran is informed that the baby is Lisa's brother.

Dr. Curran compliments Lisa on her solicitous care of her brother. "The baby is beautiful, healthy little fellow, isn't he?" continues Dr. Curran. Lisa responds to this by turning the carriage away from the teacher and, after a strained minute of silence, says she has to return home to help her mother. How would you explain Lisa's behaviour?

Possible Explanations:

- (1) Lisa does not want to take up Dr. Curran's time because it would be disrespectful, so she feels she has to leave.
- (2) Lisa does have to help her mother
- (3) Lisa is afraid the baby has been given the evil eye, and she wants to tell her mother about it as soon as possible.
- (4) Seeing Dr. Curran has reminded Lisa that she has to finish her homework.

8. The Comment (p.34)

Sam is a New Zealand Pākehā third year student at Victoria University. Sam frequently has lunch in the Hub with his classmates that are all from different cultures. Lately, Sam has been sitting next to this new student from Egypt named Reem. Sam thinks that Reem is very intelligent and interesting and likes her personality. After a couple of weeks having lunch together, Sam starts feeling more comfortable next to Reem. The next day at lunch, students were talking about what they had done over the weekend and Sam jokes with Reem saying “Oh, you are such a party animal!”. For the next days, Reem doesn’t show up for lunch. Sam starts getting worried and texts her. Reem responds to the text and tells her that she said something very insulting the last time they had lunch together. Sam doesn’t understand what she might have said that insulted her. How could Sam have insulted Reem unintentionally?

Possible Explanations:

- (1) New Zealanders sometimes show affection to others through sense of humour, but sometimes that sense of humour doesn’t translate to other cultures.
- (2) Sam touched Reem inappropriately
- (3) Sam used a loud tone of voice
- (4) Reem didn’t understand the joke

## 9. The Class Project (p.16)

August is a German exchange student at Victoria University. For his Behavioural Neuroscience final project, he has to work with another student from the class. August is paired with a domestic student named Tyler. Tyler is a New Zealand Pākehā native and is very sweet. Tyler offers August to meet at a coffee shop the next day to work on the project and August accepts. When Tyler arrives to the coffee shop she orders two coffees for her and August. When August arrives to the coffee shop, he is confused as to why Tyler would have bought him coffee if they are meeting to work. When August sits down, Tyler starts asking him about his life in Germany and his family. August doesn't feel comfortable talking about his personal life in a work situation, so he tries to avoid her questions and get straight to work. Tyler starts to think that August is very rude. August thinks that Tyler is being unprofessional. Why does August think Tyler is unprofessional?

Possible Explanations:

- (1) August thinks Tyler is flirting with him because she bought him coffee and is asking too many personal questions.
- (2) August thinks Tyler doesn't want to do any of the class project work.
- (3) August thinks they shouldn't have met in a coffee shop to do schoolwork.
- (4) August isn't used to having classmates demonstrate interest in his personal life when meeting for a school-work related reason because German culture tends to be more work oriented in work situations.

#### 10. The Meal (p.20)

Tia is a Māori student at Victoria University of Wellington. Tia has recently been volunteering at Victoria International and wanted to bring a cake for morning tea. Her co-workers think it's odd that a volunteer would bring cake for morning tea since it is not a special occasion, and no one ever brings food for morning tea. Why is it not odd for Tia to want to bring cake to morning tea?

Possible Explanations:

- (1) In Māori culture, it is normal bring food for people you don't know.
- (2) In Māori culture, people eat cake all the time.
- (3) In Māori culture, *kai (food)* is a valuable source of hospitality and looking after people.
- (4) In Māori culture, it is important to bring something to meetings.

## Appendix C

### Survey Material

#### Information Sheet

Intercultural Competence and Relations  
Ethics Application: 0000007170  
Information Sheet

Researcher: Natalia Zenoni  
Masters Student Cross-Cultural Psychology  
Centre for Applied Cross-cultural Research and School of Psychology

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[REDACTED]

Supervisor: Colleen Ward PhD FRSNZ  
Professor of Psychology  
Centre for Applied Cross-cultural Research and School of Psychology

[REDACTED]  
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This research has been approved by the School of Psychology Human Ethics Committee under delegated authority of Victoria University of Wellington's Human Ethics Committee. Ethics Application: 0000007170

What is the purpose of this research?

- The purpose of the research is to examine intercultural competence, that is, what you know about other cultures and how to behave when interacting with people from different cultural backgrounds. We are also interested in how your intercultural competence relates to how you view and relate to international students from diverse cultural backgrounds.

Who is conducting the research?

- The research is conducted by Masters student Natalia Zenoni under the supervision of Professor Colleen Ward in the Centre for Applied Cross-cultural Research and School of Psychology at Victoria University of Wellington (see contact details above).

Who can participate in the research?

- Both domestic and international students at VUW, aged 18 and over, are able to participate in the research.

What is involved if you agree to participate?

- If you agree to participate in this study, you will complete a short test where you will be asked questions about the behaviours of people from different cultural backgrounds. You will receive feedback about your performance and will then be redirected to complete a short survey where you will be asked about your relations with international students.



For example, you may be asked about the extent to which you agree with the statement “International students make good classmates” or questions such as “How likely are you to make friends with an international student?”

- It is anticipated that the survey will take no more than 30 minutes to complete.
- Your participation in the research is voluntary. You are free to withdraw from the research at any point before your survey has been completed. This can be done simply by clicking the withdraw button that can be found at the bottom of each page. This will ensure that your data will not be included in the research.
- If you complete the survey, you are eligible to go into a draw for one of six \$50 food vouchers.

#### Privacy and Confidentiality

- This survey is confidential. Your name or any personal information about you will not be connected to your survey responses in our records. The information you provide will be coded by number only. You will not be specifically identified as having participated in the project.
- In the interests of open science, the survey data without identifying information may be made available to other researchers or through supplementary materials included with publications.
- If you choose to participate in the draw, the contact information you provide cannot be matched to your survey responses.

What happens to the information that you provide?

The data from survey may be used for one or more of the following purposes:

- The overall findings may be submitted for publication in a scientific journal or presented at scientific conferences.
- In accordance with the requirements of some scientific journals and organizations and in the interest of open science, the data without identifying information may be shared with other researchers.
- This study is part of a Masters by Thesis

#### After the Survey

If you complete the survey, you will be given a debriefing statement. If you have any concerns about the project or if you have any ethics queries, you may contact the University’s Human Ethics Committee convener, Dr. Judith Loveridge, email: [judith.loveridge@victoria.ac.nz](mailto:judith.loveridge@victoria.ac.nz)

If you have any further questions regarding this study, please contact Natalia Zenoni.

If you would like the results of this study, they will be available approximately 1 December 2019 at: [www.victoria.ac.nz/cacr](http://www.victoria.ac.nz/cacr).

Thank you for considering participation in the research.

Natalia Zenoni

Consent for participation

I have read the information sheet and give my consent to participate and to use my survey responses as described.

Agree

## Demographic Questionnaire

*First question to direct participants to appropriate version of survey:*

1. Are you an international student? Yes/No

*Domestic Students:*

Instructions: Please complete the following questions about yourself.

2. Were you born in New Zealand? Yes/No
3. What is your gender? Male/Female/Gender diverse/Prefer not to answer.
4. What is your age (in years)?
5. Are you a: first year undergraduate/second year undergraduate/third year undergraduate/honors student/postgraduate?
6. How much contact do you have with international students? None/a little bit/some/very much.

*International Students:*

Instructions: Please complete the following questions about yourself.

2. Were you born in New Zealand? Yes/No
3. How long have you lived in New Zealand (in months)?
4. What is your gender? Male/Female/Gender diverse/Prefer not to answer.
5. What is your age (in years)?
6. Are you a: first year undergraduate/second year undergraduate/third year undergraduate/honors student/postgraduate?
7. How much contact do you have with international students from other countries? None/a little bit/some/very much.

## Manipulation Checks

1. Compared to other students, how well did you do on the test for intercultural competency?  
(1) lower than average, (2) about average, (3) above average
2. On a scale of 0-100, how would you rate your performance in the intercultural competency test?  
(0) very poor to (100) extremely well
3. How accurate do you think the test was in assessing your intercultural competency?  
(1) not at all accurate (2) somewhat accurate (3) moderately accurate (4) very accurate  
(5) extremely accurate
4. In your opinion, how easy or hard were the test items?  
(1) very easy, (2) easy, (3) neutral, (4) hard, (5) very hard
5. In your opinion, did your performance on the test affect how you feel about interacting with (other) international students?  
(1) not at all, (2) to a small extent (3) to a moderate extent (4) to a large extent

### Contact Scale

(Ward et al., 2005)

Instructions: Please respond to the following questions regarding how much interaction you have with (other) international students from 1=Never to 4=Often

	1. Never	2. A little bit	3. Some	4. Often
1. Doing exam revision				
2. Spending time in the holidays				
3. Working in a study group				
4. Sharing class notes				
5. Interacting during free time				
6. Doing group assignments				

Intercultural Anxiety Scale (Stephan & Stephan, 1992)

Instructions: The following set of questions concerns situations you could find yourself in when interacting with international students (or with international students from cultural backgrounds different from your own). Please indicate how you would react to these situations. In each situation you would be the only (New Zealander/person from your country present). The other people would be (other) international students

1. Going to a small party

1 2 3 4 5 6 7 8

Not at all self-conscious      Extremely self-conscious

2. Spending time with a member of opposite sex

1 2 3 4 5 6 7 8

Not at all anxious      Extremely anxious

3. Meeting strangers and introducing yourself

1 2 3 4 5 6 7 8

Not at all nervous      Extremely nervous

4. Being unable to make yourself understood when it is important

1 2 3 4 5 6 7 8

Not at all frustrated      Extremely frustrated

5. Unintentionally offending a member of the other group by making a small social error.

1 2 3 4 5 6 7 8

Not at all guilty      Extremely guilty

## Attitudes toward International Students Scale

(Ward et al., 2005)

Instructions: Please respond to the following questions regarding your perceptions of (other) international students from 1=Strongly Agree to 5=Strongly Disagree

	1.Strongly Agree	2. Agree	3. Neutral	4. Disagree	5.Strongly Disagree
1. International students have many qualities I admire.					
2. International students have made an important contribution to my university.					
3. I like having international students in my class.					
4. International students are good classmates.					
5. International students have a positive influence in my class.					
6. International students are boring.					
7. International students are good role models.					
8. I don't like international students.					

<p>9. International students are not interested in being friends with NZ students.</p>					
<p>10. There should be fewer international students in the country.</p>					
<p>11. We should make an extra effort to welcome international students.</p>					



Self-Report Willingness to Engage Scale

	1. Not at all	2. Somewhat likely	3. Likely	4. Very likely
1. How likely are you to help an international student (international student from another country) in your class?				
2. How likely are you to make friends with an international student (international student from another country)?				
3. How likely are you to choose to work with an international student (international student from another country) for your next project?				
4. How likely are you to work with an international student (international student from another country)?				

## Behavioural Indicator of Willingness to Engage Measure

A buddy programme is being developed at Victoria University of Wellington for both New Zealand and international students to be partnered up with international students. The goals of this program are to foster positive relationships between international and New Zealand students and help all students adapt to a new multicultural environment at Victoria University of Wellington to maximize positive relations.

Would you like to be a buddy?

[Click here if you would like more information about the programme.](#)

[Click here if you do not want further information.](#)

## Debrief Sheet

### Intercultural Competence and Relations

Ethics Application: ██████████

### DEBRIEFING STATEMENT

Thank you for participating in this research.

This study involved deception concerning the feedback you received about your performance on a test of cultural competency and about the link to learn more about a buddy programme at Victoria International.

In this research we examined intercultural competence as an important contributor to positive intercultural relations. Specifically, we hypothesized that greater perceived competence lowers intercultural anxiety, increases positive attitudes toward international students and increases self-reported and actual willingness to interact with them. To test these hypotheses, we must be able to vary the feedback provided to research participants about their test performance so that some believe they are more culturally competent and some believe that they are less culturally competent than other students. Therefore, the feedback you received about your intercultural competency was not based your performance. Rather, performance feedback (top or bottom 25%) was randomly distributed to participants. Although deception should be used sparingly in psychological research, in this case it was necessary to test our hypotheses.

Similarly, as we were interested not only in self-report, but also in actual behaviours, we offered research participants the opportunity to become involved in a buddy programme. Some of you asked for additional information about the programme and others did not, but your response was not linked to the buddy programme at Victoria International. To be able to assess willingness to engage with international students in behavioural terms, this deception was also necessary. Currently, there is a buddy programme at VUW that you can join. If you are still interested in participating, please visit this link. <https://www.victoria.ac.nz/international/pre-arrival/buddy>

Understanding the effects of intercultural competence is important. If we find it does lower intercultural anxiety and enhance relations with international students, universities can offer training to increase the cultural competence. This in turn can contribute to enhanced student wellbeing and greater social cohesion within educational institutions. This is particularly significant in New Zealand where 1 in 4 people is overseas-born and more than 125,000 international students study here.

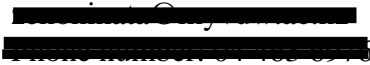
If you wish to withdraw your data after having learned about the deception, please tick the box below.

I wish to withdraw my data from this study

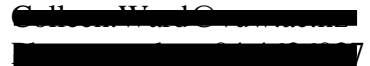
If you are interested in the research findings, these will be posted at [www.victoria.ac.nz/cacr](http://www.victoria.ac.nz/cacr) by December 1, 2019.

Thank you again for participating in this study. Please do not discuss this study with any of your friends and classmates who are planning to participate in this research until after they have done so. It is important that they are not aware of the deception beforehand for us to ensure the validity of the research.

Natalia Zenoni  
Masters Student Cross-Cultural Psychology  
Centre for Applied Cross-cultural Research and School of Psychology



Supervisor:  
Colleen Ward PhD FRSNZ  
Professor of Psychology  
Centre for Applied Cross-cultural Research and School of Psychology



### **Participation in draw**

To participate in the draw, please click here.

Google Pages:

DRAW

Please provide your VUW email address below to participate in the draw for a \$50 food voucher

\_\_\_\_\_