What lies beneath:
The stigmatisation of international accounting students as surface learners

Abstract

Recent policy changes in many Western countries, including the introduction of caps on international student enrolments and stricter requirements for obtaining student visas, highlight an underlying stigmatisation of international students as 'surface learners'—students who focus primarily on memorisation and rote learning to pass exams rather than engaging deeply with the material to gain a comprehensive understanding. This paper compares the learning approaches of international and domestic accounting students in the highly internationalised higher education context of Australia to explore the validity of this stigmatisation. In contrast to much of the literature, we find international students to exhibit higher levels of deep learning than domestic students. Rather than subsuming international students as a homogenous group, our analysis provides a highly nuanced and contextual understanding of the role that student ethnicity plays in student approaches to learning. Interestingly, our main finding of international students showing a higher engagement in deep learning than domestic students applies predominantly to males, with female students showing only negligible differences in learning approaches based on ethnicity and residency status. Importantly, our findings suggest that the stigmatisation of international students as disproportionate surface learners in current policy debates is unfounded.

Keywords: Accounting education; Domestic students; Learning Approaches; Surface learning; International students; Stigma.

1. Introduction

Several higher education export giants, such as Australia (Department of Education, 2024), Canada (Government of Canada, 2024), and the United Kingdom (Department for Education, 2024), have considered and already introduced policies that cap the number of international, fee-paying students allowed to enrol at universities (The Conversation, 2024a). The associated policy discussions are often framed around concerns that international students, particularly those from non-English speaking backgrounds, may be entering the respective country not due to commitment to academic studies but rather to pursue work opportunities and secure permanent residency. In response, governments are actively contemplating or have already introduced stricter regulations and correctives aimed at identifying students who are genuinely pursuing higher education. Besides mandating limits on how many fee-paying international students universities can enrol, these regulations have led to tighter English language requirements (Study Australia, 2024) and varying speeds of student visa approvals. For example, in Australia, applications for international student visas are now processed based on a student's country of origin and risks of visa abuse (Australian Financial Review, 2024a).

With governments accusing universities of having become overly reliant on income from international students, resulting in the prioritisation of economic contributions over elevated learning, these policy discussions reflect a growing stigmatisation of international students as *surface learners*—characterised by an intention to acquire only enough knowledge to complete tasks or subjects by relying on (temporary) memorisation and reproduction of material (Biggs, 1993; Booth et al., 1999; Everaert et al., 2017; Marton & Säljö, 1976). This stands in stark contrast to the universally shared view amongst politicians (e.g., Parliament of Australia, 2024) and scholars (e.g., Chalmers & Volet, 1997; Watkins et al., 1991) of domestic students as *deep learners*—personally committed to learning and exhibiting a self-interest in

the subject to deepen their understanding of the material and linking it to previous experiences and other knowledge (Marton & Säljö, 1976).

The stigmatisation of international students as surface learners has become increasingly pervasive. International students are aware of this stigma and attempt to "disassociate themselves" from it (Patel et al., 2016, p. 229). By contrast, academics appear to buy into the stigmatisation and "design curricula accordingly" (Kember, 2000, p. 117), while the media tend to portray international students as "victims, cheaters or migration hunters" rather than as genuine students (Tran & Vu, 2016). Similarly, politicians have pointed to the "high numbers of international students … compromising the educational outcomes" of domestic students (Parliament of Australia, 2024).

Motivated by the stigmatisation of international students as surface learners, this study aims to investigate whether international accounting students engage disproportionately in surface learning when compared to domestic students, and thus whether the prevailing stigmatisation of international students as surface learners is justified or a misguided stereo typification. Much of the prior literature explores accounting students' learning approaches by looking at domestic and international students as homogenous groups (e.g., Abhayawansa & Fonseca, 2010; Patel et al., 2016). By contrast, we take a more nuanced approach, examining whether learning approaches differ across student groups based on different ethnic backgrounds and gender. In so doing, we provide a deeper understanding of which learning approaches accounting students engage with, reorienting a deeply important academic debate that has become increasingly politicised through its focus on stereotypes.

Drawing on stigma theory (Goffman, 1963) and the well-established higher education literature on the dichotomy of student approaches to learning into deep and surface learning (Biggs, 1993; Culhane & O'Mahony, 2023; Marton & Säljö, 1976), our study uses survey data

derived from the application of the Biggs et al. (2001) Revised Study Process Questionnaire (R-SPQ-2F) for measuring learning approaches. Building on 371 survey responses from 160 domestic and 211 international accounting students enrolled in a business school in Australia, stigma theory allows us to critically explore the underlying reality of international students being labelled with negative stereotypes, which has resulted in their discrimination and exclusion (Quinton, 2019; Tran & Vu, 2016). Specifically, in higher education surface learning is associated with negative stereotypes because it is viewed as an "undesirable" trait (Duff & Mladenovic, 2015, p. 322) and an "inferior" approach to learning (Li et al., 2022, p. 152). In contrast, deep learning as a more integrative approach to learning, with students seeking to understand underlying concepts, is less likely to be stigmatised.

Our study reveals the following empirical findings. First, international accounting students demonstrate *higher* scores on *deep* learning approaches compared to domestic students. This finding challenges the widespread stigmatisation of international students as surface learners (e.g., Kember, 2000; Parliament of Australia, 2024; Patel et al., 2016), suggesting that such broad and universally applied generalisations can be misleading and thus appear unwarranted in current policy debates.

Second, turning our focus on students' ethnicity, our findings point to international students exhibiting *more deep* and *less surface* learning tendencies than their domestic counterparts. This highlights the importance of avoiding blanket stigmatisation of international students from certain ethnic backgrounds as done in current immigration debates. Notably, *South Asian* students, which includes students from India and its neighbouring countries such as Pakistan, Sri Lanka and Nepal, display a positive association between part-time work and both *increased deep* learning and *reduced surface* learning tendencies. This contradicts widely promulgated narratives (e.g., Australian Financial Review, 2024a) that question the learning

motives of South Asian international students compared to international students from other ethnic backgrounds such as East Asia (includes countries like China, Korea and Japan).

Finally, while *female* international and domestic students do not differ much in their approaches to learning, *male* international students are associated with *more deep* approaches to learning than *male* domestic students. This result again reinforces how, across genders, the stigmatisation of international students appears unjustified.[1] Collectively, our results thus challenge the validity of stereotypes associated with the learning approaches of international students in Australia, emphasising the need for a more nuanced and contextual understanding of their academic engagement. While some international students may initially exhibit surface learning behaviours due to cultural, linguistic, financial, or situational factors, our empirical findings indicate their capability of adopting deep learning strategies. It is here that we acknowledge the crucial role accounting academics play in facilitating this transition through, for example, the promotion of critical thinking and active learning strategies (English et al., 2004; Hall et al., 2004), thus moving away from designing curricula that reinforce the stereo typification of international students as surface learners (Kember, 2000).

Our study on the stigmatisation of international students as surface learners offers contributions to the higher education literature on student learning approaches and educational stigma. Combining stigma theory with insights from the literature on student approaches to learning, our study reveals how surface learning is constructed as a social stigma to 'produce' international students as stereotypical subjects, contributing to the marginalisation of non-Western ethnicities in Western contexts. It also carries important practical implications for ongoing policy debates surrounding the denial of educational opportunities for international students through, amongst others, student enrolment caps and tighter visa rules by challenging

[1] Our survey collects data on the following genders: male, female and others (see Appendix C). The third group has a limited sample size in our data, so we refrain from drawing inferences from its findings. However, we include this group in most of our analyses for the completeness of our sample.

the widespread stereo typification of international students. Specifically, based on our empirics, we call for more inclusive, evidence-based policies that support and recognise the adaptability of international (accounting) students and their ongoing economical and societal contributions.

The remainder of the paper proceeds as follows. Section 2 presents the theoretical and institutional background to our study, reviews related literature and develops hypotheses. Section 3 describes our research setting, design and measures. Section 4 reports our findings, which are then discussed in Section 5. Lastly, Section 6 concludes with our study's contributions and limitations, along with directions for future research.

2. Background, literature review and hypothesis development

2.1. Theoretical and institutional background to surface learning as a stigma

Starting with the seminal work of Marton and Säljö (1976), a long line of literature has explored two distinct approaches to learning adopted by students: deep and surface (Culhane & O'Mahony, 2023). A deep approach involves students "looking for meaning" when studying and connecting what is learnt with other ideas and experiences, while a surface approach sees students relying on "rote-learning" without linking ideas together (Duff & Mladenovic, 2015, p. 321). In other words, deep learners aim to understand the material, while the focus of surface learners is only to reproduce the material to pass the subject (Everaert et al., 2017). Given how the two approaches are defined, research has frequently viewed the surface approach as undesirable and has tied it to poor learning outcomes among students (Culhane & O'Mahony, 2023; Duff & Mladenovic, 2015). Since surface learning is viewed as undesirable, it may become a source of stigma (Goffman, 1963). This is because stigma is an attribute that is "deeply discrediting, a contaminated identity or a defiling condition" (Garcia-Lorenzo et al., 2022, p. 1631).

International students in Western countries, such as Canada, Australia, and the United Kingdom, are often associated with the above stigma of being surface learners, while domestic students are seen as deeper learners. This stigma appears to stem from multiple "sources" (Zhang et al., 2021, p. 194). First, *international students* themselves are often aware of the surface learning stigma they are branded with by others because they often come from educational systems (Patel et al., 2016) or cultural backgrounds (Abeysekera, 2008) that are more conducive to surface learning. Second, *academics* may also accept the stigma that international students are surface learners who learn differently from domestic students (Wang & Byram, 2011; Watkins et al., 1991), and "design curricula accordingly" to facilitate rote-learning because this is what international students are only capable of (Kember, 2000, p. 117). Third, the *media and public disclosure* at large may also stigmatise international students as coming to host countries to study not for advancing their knowledge but for reasons like securing residency (Tran & Vu, 2016). Thus, the overall institutional setting faced by international students is characterised by the stigma that international students are more surface learners than domestic students.

2.2. *Hypothesis development*

A long stream of research has explored whether international students tend to be deep or surface learners compared to domestic students (e.g., Abhayawansa & Fonseca, 2010; Chalmers & Volet, 1997; Donald & Jackling, 2007; Duff & Mladenovic, 2015; Li et al., 2022; Sakurai et al., 2014; Volet, 1999). While this body of research provides valuable insights, it has yet to frame surface learning as a 'stigma' (Goffman, 1963) faced by international students. This theoretical gap is crucial, as stigma theory provides a lens to explore whether international

students are unfairly labelled as surface learners and whether such a label is empirically supported.

The closest some studies have come to this research question is to refute "misconceptions" (Chalmers & Volet, 1997) or a "stereotype" (Watkins et al., 1991) about the learning approaches of students. However, these studies are often limited in scope, focusing on students from certain countries—such as China (Patel et al., 2016; Wong et al., 2015), Sri Lanka (Abhayawansa & Fonseca, 2010) or Australia (Abeysekera, 2008; Donald & Jackling, 2007)—rather than examining international and domestic students more broadly. Furthermore, prior research has not explicitly addressed whether the stigma associated with surface learning is justified across diverse ethnic backgrounds.

In light of these gaps, our study applies a stigma lens to assess the validity of stereotypes about international students' learning approaches. Specifically, we examine whether international students, as a group, exhibit different learning approaches than domestic students and whether these differences persist across various ethnic backgrounds. By framing surface learning as a "stigma" or "defiling condition" (Garcia-Lorenzo et al., 2022, p. 1631), our study aims to contribute to a more nuanced understanding of learning behaviours among these cohorts.

To guide our analysis, we propose the following two hypotheses through the stigma lens, defining the international and domestic student cohorts more broadly to include students from a wide range of ethnic backgrounds. The hypotheses are presented in the null form due to mixed findings in prior research on the learning approaches favoured by domestic and international students, including those from different ethnicities (e.g., Abhayawansa & Fonseca, 2010; Patel et al., 2016).

H1: *The learning approaches of domestic and international students do not differ.*

H2: *The learning approaches of domestic and international students do not differ within and across ethnic groups.*

3. Research design and method

3.1. Research setting

To effectively capture the stigmatisation of international students' learning approaches, we focus on international accounting students in Australia. This setting is appropriate to test our hypotheses for four main reasons.

First, Australia has a high number of international students (Patel et al., 2016), with about 33% of students in the higher education sector coming from outside the county in 2023 (Department of Education, 2023), signifying the importance of understanding their academic experiences in this setting.

Second, international students in Australia have faced increasing scrutiny and stigmatisation of their learning motives in recent years. For example, a new immigration ruling was enacted in 2023 to "block non-genuine students from coming to Australia" (Australian Financial Review, 2024b) before being revoked in late 2024 (Department of Home Affairs, 2024a). Additionally, proposed caps on international student enrolments were set to come into effect from 2025 onwards before being voted against in parliament (The Conversation, 2024b). These policy debates reflect heightened scepticism regarding the intentions and learning priorities of international students.

Third, anecdotal evidence suggests that the stigmatisation of learning motives varies by the country of origin of international students in Australia—student visas are granted at varying speeds depending on an applicant's country of origin, with applicants from countries supposedly likely to abuse the visa system for purposes other than studying facing lower visa

grant rates (Australian Financial Review, 2024a). While Chinese students are often noted for returning home after graduation (Australian Financial Review, 2024a), students from other countries, such as India, may focus more on securing employment and/or residency (MacroBusiness, 2022). Supporting the claim, data from the Australian Department of Home Affairs illustrates that student visas granted to applicants of Indian origin fell by 50.8% from 2023 to 2024 compared to a decrease of only 8.1% for applicants of Chinese origin in the same period (Department of Home Affairs, 2024b). These disparities make Australia an ideal setting to examine whether surface learning stigma is influenced by ethnicity.

Finally, international *accounting* students, in particular, face a relatively high level of scrutiny of their learning motives and strategies in Australia. For instance, the Australian government "singled out accountants as an occupation where almost 80 per cent of skilled migrants fail[ed] to find work with their chosen skill" (Accountants Daily, 2023). Additionally, Certified Practising Accountant (CPA) Australia, a professional accounting organisation, also quoted data from the government suggesting that the vast majority of accounting migrants worked outside accounting, leading it to question "Where did all the accounting migrants go?" (CPA Australia, 2024). More recently, the Australian government has been slow in adding key accounting roles to the list of occupations eligible for fast-tracked migration (Accountants Daily, 2024a, 2024b). To conclude, given the high level of stigmatisation faced by international accounting students in Australia, this group represents a highly relevant population to assess whether the surface learning stigma faced by international students is justified or misplaced.

3.2. Research design

We collected data on student enrolments and their learning approaches through a structured survey.[2] The survey was administered during Semester 2, 2022 across three accounting units in a large public university in Australia. The university was selected due to evidence suggesting that the stigmatisation of international students is particularly pronounced in the larger public universities in Australia (e.g., Parliament of Australia, 2024).

The three accounting units represented a mix of undergraduate and postgraduate courses. Two of the units, *Accounting Information Systems* and *Accounting for Sustainability*, consisted exclusively of undergraduate students, while the third unit, *Accounting for Business*, contained only postgraduate students. This allowed us to capture data from students at different academic levels, ensuring a broader representation of learning approaches.

Out of the 671 accounting students invited to take part in the survey voluntarily, 371 usable responses were received, giving an approximate response rate of 55%. This provides a robust sample for analysis. The collected data included demographic information and responses to learning approach measures, enabling an in-depth exploration of the stigmatisation of surface learning among international students.

3.3. Measures

3.3.1. Student residency status (international versus domestic)

As part of the demographic section of our survey, students were asked to self-identify as either international or domestic students. We use this information to define a binary variable, *International*, that equals 1 if the student self-reports to be an international student, and 0 otherwise.

[2] See Appendix A and Appendix B for a copy of the survey instruments—they are explained in Section 3.3. Ethics approval and student consent were obtained prior to collecting data as part of the survey.

The demographic section of our survey also collects information on additional student-related factors known to influence learning approaches, which we include as control variables in our analysis. These factors include gender (Culhane & O'Mahony, 2023), age, whether the student is an undergraduate/postgraduate student (proxies for maturity) (Culhane & O'Mahony, 2023), students' major (e.g., accounting versus non-accounting major) (Duff & Mladenovic, 2015), part-time employment status, the number of units they are enrolled in (proxies for external pressure and student workload) (Scully & Kerr, 2014), and whether the unit is compulsory (proxies for student perception of course requirements) (Jackling, 2005). Finally, due to our interest in whether learning approaches vary by ethnicity (H2), we collect data on students' ethnic backgrounds.[3]

3.3.2. Student approaches to learning (deep versus surface)

The survey instrument used to measure learning approaches, our dependent variable, was drawn from Biggs' Revised Study Process Questionnaire (R-SPQ-2F) (Biggs et al., 2001). The R-SPQ-2F has been widely used in extant research to measure student approaches to learning (e.g., Everaert et al., 2017; McDowall et al., 2015). It consists of 20 items or statements split evenly between capturing the two approaches to learning (*deep* and *surface*). Each statement is rated on a 5-point Likert scale ranging from 1 (rarely true of me) to 5 (always or almost always true of me). The statements also capture either a learning motive or a learning strategy, resulting in four subscales (deep motive, deep strategy, surface motive, surface strategy) with 5 statements each.[4]

[3] See Appendix C for a list of variables and their definitions.
[4] Learning *motive* refers to the *intention* of students when it comes to learning – whether it is to seek meaning (deep motive) or to reproduce information (surface motive) (Jackling, 2005). Learning *strategy* refers to the *tactics* students use for learning, such as rote learning (surface strategy) or making notes (deep strategy) (Jackling, 2005). Together, "[t]he combination of students' motives to learn and the strategy they use determines the learning approach" (i.e., deep approach versus surface approach) (Everaert et al., 2017, p. 81).

After collecting student responses, we applied principal factor analysis (PFA) to extract the first factor that explains the maximum variance within each subscale. This resulted in four measures of learning approaches to use as dependent variables in our study: *Deepmotive_Factor1*, *Deepstrategy_Factor1*, *Surfacemotive_Factor1*, and *Surfacestrategy _Factor1*. Additionally, we conducted PFA separately on the ten items associated with deep and surface approaches, retaining the first factor for each of the two approaches. This resulted in two composite measures of learning approaches: *Deep_Factor1* and *Surface_Factor1*.[5,6]These variables provide a comprehensive basis for analysing students' learning approaches.

4. Main Findings

4.1. Descriptive statistics

Table 1 presents the descriptive statistics for our main, control and ethnicity variables. Of the 371 students in our sample, 57% are international students. Regarding our control variables, our sample is relatively balanced across key factors, including gender, accounting versus non-accounting major, and students with versus without part-time employment. The majority of the students are undergraduates, enrolled in the unit compulsorily rather than as an elective, and taking the standard semester load of 4 units.[7]

[Insert Table 1 about here]

[5] We assessed the internal consistency within each of the four subscales (deep motive, deep strategy, surface motive, surface strategy), as well as the two primary scales (deep and surface), using Cronbach's alpha. All scales had alphas greater than 0.65, which is in line with prior studies (e.g., Biggs et al., 2001; Everaert et al., 2017). See Appendix D for Cronbach's alphas and detailed factor loadings.

[6] We only extract the first factor when doing all our PFAs because the eigenvalue of the first factor is far larger than the second factor in all our PFAs. For example, in the PFA with the 10 deep approaches to learning items, the eigenvalue of factor 1 is 3.8 while the eigenvalue of factor 2 is 0.3. See Appendix E for the eigenvalues of our first factors for all our PFAs.

[7] The six learning approach measures in Table 1 capture *standardised* factor scores from PFAs. They are thus expected to have a mean of zero and standard deviations close to one (Grice, 2001). However, the factor scores we report are estimates obtained from running the PFA procedure in SAS 9.4, the statistical software we used for our analyses. The scores may therefore not conform exactly to a mean of zero and standard deviation of one (SAS Institute Inc., 2015).

Table 2 provides the breakdown of our sample by ethnicity. The biggest group of students are East Asian and Caucasian students, followed by a significant representation from Southeast Asia and South Asia. Notably, many of the ethnicities in our sample include both domestic and international students, illustrating the cultural diversity of the two student cohorts.

[Insert Table 2 about here]

4.2. Hypothesis testing

4.2.1. Learning approaches of international versus domestic students (H1)

To examine whether international and domestic students differ in their learning approaches (H1), we use multivariate ordinary least squares (OLS) regressions. We regress our measures of learning approaches (*deep* versus *surface*) on student residency status (international versus domestic) and controls for other student-related factors. The results in Table 3, when using our full baseline sample, indicate strongly that international students are more likely to conduct deep motive learning and deep strategy learning (Column 1 and 2), and less likely to conduct surface strategy learning (Column 4). When we add together the motive and strategy factors for the deep approach (Column 5), and surface approach (Column 6), we continue to find evidence of international students pursuing more deep learning (Column 5). Overall, Table 3 suggests that, on average, international students score *higher* on *deep* learning approaches compared to domestic students, with some evidence that they score lower on surface learning approaches. The results thus reject the null hypothesis H1.

[Insert Table 3 about here]

The control variables are mostly insignificant in Table 3. This may be due to heterogeneous effects across ethnicities and residency statuses, meaning that the influence of

these controls on learning approaches may vary within and across these groups, cancelling out any overall effect. We explore this possibility in more detail in the next section.

4.2.2. Learning approaches of international and domestic students by ethnicity (H2)

To examine if domestic and international students adopt different learning approaches based on their ethnicity (H2), we include additional variables capturing all the ethnicities reported by students in our sample and repeat our multivariate regressions using our baseline sample in Table 4. The default group is represented by Caucasian students. For students who chose more than one ethnicity, both their chosen ethnicities are coded as 1. The results in Table 4 illustrate that including variables capturing ethnicities does not qualitatively change the results from Table 3: international students score higher on deep approaches to learning but lower on surface approaches to learning. However, reviewing the results for each ethnicity gives two interesting findings: (1) East Asian students, which includes Chinese students, are more likely to be surface learners than Caucasian students (Column 3 and 6), and (2) South Asian students, which includes Indian students, are more likely to be deep learners than Caucasian students (Column 1, 2 and 5). Thus, the results in Table 4 reject a part of the null hypothesis H2—learning approaches do appear to differ *across* ethnicities.

[Insert Table 4 about here]

The two findings above could be driven either by international or domestic students *within* each of the two ethnicities (East Asian and South Asian). To shed more light on this, we split our sample into domestic (Panel A) versus international students (Panel B) in Table 5. The results in Table 5 indicate that there is no difference in the learning approaches of domestic and international *South Asian* students—both favour deeper approaches to learning than domestic and international *Caucasian* students, respectively. However, while *domestic* East Asian

students are more likely to be surface learners, *international* East Asian students are more likely to be deep learners than corresponding Caucasian students.[8]

[Insert Table 5 about here]

To further investigate differences in learning approaches between domestic and international students *within* each ethnicity, we split our sample by ethnicity in Table 6, excluding groups with insufficient observations. Starting with Caucasian students (Panel A), there is very weak evidence of *international* students being associated less with surface learning than *domestic* students (Column 4), but this could be because of the low number of international Caucasian students in our sample. For East Asian students (Panel B) which includes students from China and neighbouring countries, the results imply that *international* East Asian students are more likely to be deep learners than *domestic* East Asian students, with some indication that being enrolled in a compulsory unit or a higher number of units discourages surface learning (Column 4 and 6).

Next, we consider South Asian students (Panel C) in Table 6 which includes students from India and other countries nearby. In this case, the results indicate that international students are less likely to be surface learners than domestic students. South Asian students with part-time employment are also associated with less surface learning, while postgraduate South Asian students appear to engage in more surface learning than undergraduate students. Finally, we look at Southeast Asian students (Panel D) in Table 6. For this ethnic group, the overarching finding that international students are deeper learners compared to domestic students appears to hold.

[Insert Table 6 about here]

[8] In Table 5, the variable capturing genders other than males and females (*Gender_Other*) has significant coefficients in some of the models. However, due to the limited sample size where *Gender_Other* = 1, we refrain from drawing conclusions based on this variable in all our tables but include the variable for completeness.

To summarise the results in Table 6, East Asian and Southeast Asian international students exhibit deeper learning approaches than their domestic counterparts, while Caucasian and South Asian international students are associated with less surface approaches to learning than their domestic counterparts. Thus, the results in Table 6 reject the remaining part of the null hypothesis H2—learning approaches do appear to differ *within* ethnicities between domestic and international students. Generally speaking, our results consistently show that international students from the major ethnic groups are associated with more *dee*p and less *surface* approaches to learning than domestic students.

4.2.3. Learning approaches of international students by gender (Additional analysis)

Prior studies offer mixed findings on gender-based differences in the learning approaches of students (Duff & Mladenovic, 2015). In our results so far, we have some indication of gender-based differences so we do an additional piece of analysis to shed more light on whether domestic and international students differ in their learning approaches based on gender. Specifically, we split our sample by gender in Table 7, excluding students who identify as Other (neither female nor male) due to its limited sample size.

[Insert Table 7 about here]

The learning approaches of domestic and international *female* students appear to be relatively similar (Panel A). However, *male* international students are much more likely to be deep learners than *male* domestic students (Panel B). Looking at the results for the various ethnicities, there is some indication that female East Asian students are associated with more deep learning than female Caucasian students (Model 1 in Panel A). In contrast, male Caucasian students are associated with less surface learning than male East Asian, Southeast Asian and Other ethnicities (Panel B). In summary, Table 7 shows intriguingly that the overarching finding

– that international students are deeper learners than domestic students—holds for male students but not so much for female students.

5. Discussion

The purpose of our study is to investigate whether the recent trend of "amplifying stigmati[s]ation" (Dong et al., 2023, p. 1063) of international students' learning approaches is justified. This stigmatisation has emerged in policy debates across various Western countries such as Australia (Department of Education, 2024), Canada (Government of Canada, 2024), and the United Kingdom (Department for Education, 2024), where concerns have been raised about the "genuineness" of international students' intentions to study in their host countries. In response, student visa requirements have been tightened (e.g., Study Australia, 2024), and caps on international student numbers have, in some cases, been implemented (Government of Canada, 2024), with students from certain countries faring worse than others (Australian Financial Review, 2024a). These policy measures, while aimed at addressing broader concerns about immigration and labour market exploitation, have inadvertently stigmatised (Goffman, 1963) all international students as surface learners (Marton & Säljö, 1976), who are interested less in acquiring knowledge and more in studying the bare minimum while abusing student visas to find work or to gain residency. This stereotype assumes that they are more focused on meeting minimal academic requirements while leveraging their student status to seek employment or residency opportunities, rather than pursuing genuine academic enrichment (Goffman, 1963). Such generalisations may fail to account for the complex interplay of cultural, linguistic, and educational factors that shape the learning experiences and academic behaviours of international students.

International students' learning approaches are shaped by their cultural and educational backgrounds, often transitioning from systems emphasising rote memorisation and teacher-centred instruction to the active, critical engagement expected in Western contexts(Watkins & Biggs, 1996). Language barriers further hinder this adjustment, as difficulties with academic English can limit their participation and engagement, which are often misinterpreted as a lack of motivation or capability(Andrade, 2006). Additionally, these students face significant academic and financial pressures, juggling demanding workloads, part-time jobs, and family expectations while paying higher tuition fees than domestic peers(Marginson et al., 2010). Despite these challenges, many demonstrate resilience and adaptability, adopting deep learning strategies when supported by culturally responsive and inclusive academic environments(Leask, 2009; Ryan & Louie, 2007). Our study considers these complexities by comparing the learning approaches of domestic and international students, including those from various ethnic groups, to determine whether the stigma of surface learning attached disproportionately to international students, and not so much to domestic students, is justified.

To answer our research question, we focus on international accounting students in Australia, a group that arguably faces heightened stigmatisation regarding their learning motives. Our analysis reveals that international students score higher on deep learning approaches compared to their domestic counterparts. This is consistent with evidence that international students may adapt their learning approach towards deeper learning after moving abroad (Wong et al., 2015). More importantly, these findings challenge the prevailing stigma that labels international students as predominantly surface learners, suggesting that such stereotypes are not only unfounded but also fail to recognise their capacity for academic adaptation and engagement.

Another key implication of our study is the confirmation that, consistent with prior studies (e.g., Abeysekera, 2008), differences in learning approaches do exist *across* different

ethnic groups. However, our key contribution lies in comparing the learning approaches of domestic and international students *within* these major ethnic groups. The general trend based on our results is that international students from these ethnic groups are associated with more deep and less surface learning tendencies than their domestic ethnic counterparts. Thus, the notion that international students from certain ethnic backgrounds are more prone to surface learning, as suggested in policy debates (Australian Financial Review, 2024a), is largely unfounded.

Our study further dives deeper into the learning approaches of international students from two major contributors of overseas students worldwide (UNESCO Institute for Statistics, 2022): China (as part of other East Asians) and India (as part of other South Asians). Notably, the findings for South Asian students challenge a commonly held stigma, often portrayed in the media (e.g., MacroBusiness, 2022), that these students exploit student visas primarily as a pathway to gaining work rights. Contrary to this narrative, our results show that part-time work among South Asian international students is associated with more profound engagement in deep learning approaches and reduced reliance on surface learning strategies. Thus, the stigma of work diverting the attention of South Asian international students may not necessarily be true.

Finally, our findings align with Duff and Mladenovic (2015) who use a cluster analytic approach to consider multiple antecedents of approaches to learning simultaneously. Specifically, we document interesting gender-based differences in the learning approaches of domestic and international students. Among female students, there are minimal differences between the two cohorts in learning approaches. However, male international students are associated with deeper approaches to learning than male domestic students. These results collectively reinforce the notion that the stigma of surface learning, often disproportionately assigned to international students in Western countries, is largely unjustified. Moreover, this

stigma may be misplaced across all genders, further highlighting the need for more nuanced perspectives in discussions about international students and their academic behaviours.

6. Conclusion

Our study makes a significant contribution by empirically demonstrating whether the stigma of surface learning increasingly attached to international students is justified. We find that the stigma may, to some degree, be misplaced. By combining two well-established theoretical frameworks—stigma theory (Goffman, 1963; Zhang et al., 2021) and the student approaches to learning framework (Biggs et al., 2001; Marton & Säljö, 1976)—we offer a novel perspective on how surface learning, often perceived as an "undesirable" approach to learning (Duff & Mladenovic, 2015, p. 322), is framed as a stigma or "defiling condition" (Garcia-Lorenzo et al., 2022, p. 1631). Our study highlights how this stigma is increasingly being weaponised in policy debates across Western countries to socially marginalise international students, consistent with the role of stigma "as a means of formal social control" (Goffman, 1963, p. 139). This lens adds depth to the discourse on international student experiences by linking surface learning to broader socio-political narratives that shape their treatment and representation. Future research could examine the "temporality" of this stigma (Dong et al., 2023, p. 1055). For example, do international students respond by "getting stuck" or do they get "out" of this stigma of being surface learners (Garcia-Lorenzo et al., 2022, p. 1629)? By addressing these questions, researchers can further unpack how stigmatisation impacts academic and social integration, providing insights into the resilience and adaptability of international students.

Our study also contributes to the extensive body of research examining the learning approaches of international and domestic students (e.g., Abhayawansa & Fonseca, 2010;

Chalmers & Volet, 1997; Donald & Jackling, 2007; Duff & Mladenovic, 2015; Li et al., 2022; Sakurai et al., 2014; Volet, 1999). In particular, we are the first to conceptualise surface learning as a 'stigma' and to investigate whether the stigma is disproportionately assigned to international students. This novel framing adds a sociocultural dimension to the discussion, highlighting how surface learning is not merely an educational outcome but a label that can marginalise and exclude students in broader social and policy contexts. Additionally, we take a more inclusive approach in defining domestic and international student cohorts by not narrowing our focus to students from specific countries or ethnic backgrounds, as is common in prior research. This broader perspective allows us to capture the diversity within these groups, offering richer insights into how learning approaches vary across cultural and educational contexts.

Beyond the above theoretical contributions, our research also has significant policy implications by making a strong case against the stigmatisation of international students as surface learners. Current policies in Western nations, such as tightening visa requirements, capping international student enrolments, or applying differential processing speeds based on ethnicity and perceived visa abuse risks, are often justified by the need to "support sustainable population growth" (Government of Canada, 2024) and to ensure only "genuine" international students arrive (Department for Education, 2024; Department of Education, 2024). Our results indicate that the average international student does have a genuine interest in coming to their host country primarily for education. These results draw attention to the potential harm of broad-stroke policies that disproportionately target international students based on generalised assumptions. Such measures risk alienating a student cohort that is already demonstrating resilience and adaptability in their learning approaches. By stigmatising international students as surface learners, these policies not only undermine the academic goals of individual students but may also jeopardise the economic and cultural benefits that international education brings

to host countries. Our findings advocate for more nuanced, evidence-based policymaking that supports rather than marginalises the contributions of international students.

Our study is not without limitations. First, our methodological design relies solely on surveys without utilising qualitative interviews. This prevents us from "obtaining a rich and detailed view" of how stigma plays a role in driving the differences in the learning approaches of international and domestic students, despite getting us close to a "representative view" of whether they differ (Lucas, 2001, p. 165). Second, and more broadly, the divide between deep and surface approaches may be too simplistic a dichotomy (Beattie Iv et al., 1997). For example, rote memorisation may be viewed as a surface approach to learning but it can also be used as a strategy to achieve deeper learning (Patel et al., 2016). Thus, as with all studies on the deep versus surface approach to learning, our study's dichotomous split of learning approaches may be overly simplistic. Despite these limitations, our study highlights critical areas for future research. Incorporating qualitative methods, such as interviews, could provide deeper insights into how surface learning operates as a stigma and affects both international and domestic students across different educational contexts. Similarly, exploring more nuanced frameworks that go beyond the deep-surface dichotomy could enrich our understanding of the multifaceted nature of learning approaches.

Appendices

Appendix A. Demographic information questions

1. Please provide your year of birth

2. Please tell us your gender
    a. Female
    b. Male
    c. Intersex
    d. My sex isn't listed (please specify)
    e. Rather not say

3. Please describe your gender identity (optional)

4. How would you best describe your ethnicity? You may choose more than one response
    a. Hispanic/Latino
    b. African
    c. East Asia (e.g., China Mainland, Hongkong, Taiwan, Korea, Japan)
    d. South Asia (e.g., India, Pakistan, Bangladesh, Sri Lanka, Afghanistan, Bhutan, Maldive, Nepal)
    e. Southeast Asia (e.g., Thailand, Philippines, Indonesia, Malaysia, Singapore, Vietnam, Cambodia, Laos, Brunei)
    f. Indigenous Australia or Torres Strait Islander
    g. Middle Eastern
    h. Caucasian
    i. Other (please specify)
    j. I'd prefer not to say

5. Please select whether you are enrolled as a domestic or international student
    a. Domestic
    b. International

6. Please select whether you are an undergraduate or postgraduate student
    a. Undergraduate
    b. Postgraduate

7. Please tell us whether you are majoring in accounting
    a. Accounting major
    b. Non-accounting major (Please specify)

8. Please tell us how many years of full-time tertiary education you have completed *Please count 1 year of part-time, evening, or casual study as 0.5 years*

(*continued on next page*)

9. Are you currently working?
    a. Yes, I spend more than 20 hours a week working
    b. Yes, I spend more than 10 hours a week working
    c. Yes, I spend more than 5 hours a week working
    d. No, I am currently not working

10. How many units are you taking this semester (Official Semester 2)?
    a. 1
    b. 2
    c. 3
    d. 4
    e. More than 4

11. Please tell us if this course is a compulsory or elective unit for you. *Select whether this unit is a compulsory component of your degree or whether you have chosen this unit as an elective unit*
    a. Compulsory
    b. Elective

Appendix B. Survey instrument

Table A
Deep and surface approaches to learning (Based on R-SPQ-2F).

Survey Item	Avg.	Mdn.	SD.	Min.	Max.
Deep approach (deep motive)					
1. I find that at times studying gives me a feeling of deep personal satisfaction.	3.47	4	0.95	1	5
2. I feel that virtually any topic can be highly interesting once I get into it.	3.23	3	1.02	1	5
3. I find that studying academic topics can at times be as exciting as a good novel or movie.	2.83	3	1.15	1	5
4. I work hard at my studies because I find the material interesting.	3.13	3	0.89	1	5
5. I come to most classes with questions in mind that I want answering.	2.87	3	1.03	1	5

(*continued on next page*)

Table A (*continued*)

Survey Item	Avg.	Mdn.	SD.	Min.	Max.
Deep approach (deep strategy)					
6. I find that I have to do enough work on a topic so that I can form my own conclusions before I am satisfied.	3.51	4	0.89	1	5
7. I find most new topics interesting and often spend extra time trying to obtain more information about them.	3.02	3	1.04	1	5
8. I test myself on important topics until I understand them completely.	3.28	3	0.96	1	5
9. I spend a lot of my free time finding out more about interesting topics which have been discussed in different classes.	2.55	3	1.15	1	5
10. I make a point of looking at most of the suggested material that go with the classes.	3.25	3	0.98	1	5
Surface approach (surface motive)					
1. My aim is to pass units while doing as little work as possible.	2.55	3	1.20	1	5
2. I do not find my units very interesting, so I keep my work to a minimum.	2.36	2	1.04	1	5
3. I find I can get by in most assessments by memorising key sections rather than trying to understand them.	2.76	3	1.04	1	5
4. I find it is not helpful to study topics in depth. It confuses and wastes time, when all you need is 50 marks out of 100 to pass a unit.	2.05	2	1.08	1	5
5. I see no point in learning material which is not likely to be in the examination.	2.78	3	1.15	1	5
Surface approach (surface strategy)					
6. I only study seriously what's given out in units or in unit outlines.	3.23	3	0.97	1	5
7. I learn some things by rote, going over and over them until I know them by heart; even if I do not understand them.	2.80	3	1.01	1	5
8. I generally restrict my study to what is specifically set as I think it is unnecessary to do anything extra.	2.88	3	1.02	1	5
9. I believe that lecturers shouldn't expect students to spend significant amounts of time studying material everyone knows won't be examined.	2.95	3	1.15	1	5
10. I find the best way to pass exams is to try to remember the solutions to questions/exercises covered in class.	3.06	3	1.15	1	5

Appendix C. Variable definitions

Variable	Definition
Independent variable	
International	A dummy variable that equals 1 if the student is an international student, and 0 otherwise.
Dependent variables	
Deepmotive_Factor1	The first factor from a principal factor analysis of the 5 deep motive items (see Appendix B).
Deepstrategy_Factor1	The first factor from a principal factor analysis of the 5 deep strategy items (see Appendix B).
Surfacemotive_Factor1	The first factor from a principal factor analysis of the 5 surface motive items (see Appendix B).
Surfacestrategy_Factor1	The first factor from a principal factor analysis of the 5 surface strategy items (see Appendix B).
Deep_Factor1	The first factor from a principal factor analysis of the 10 deep approach items (see Appendix B).
Surface_Factor1	The first factor from a principal factor analysis of the 10 surface approach items (see Appendix B).
Control variables	
Gender_Female	A dummy variable that equals 1 if the student is a female, and 0 otherwise.
Gender_Other	A dummy variable that equals 1 if the student is neither female nor male, and 0 otherwise.
Major_Accounting	A dummy variable that equals 1 if the student majors in accounting, and 0 otherwise.
Part_Time	A dummy variable that equals 1 if the student has indicated that they work part-time, and 0 otherwise.
Compulsory	A dummy variable that equals 1 if the student has indicated that the unit they are enrolled in is compulsory, and 0 otherwise.

(*continued on next page*)

Variable	Definition
Num_Units	The number of units that the student is enrolled in in the semester, ranging from 1 to more than 4.
Age	The natural log of 2022 minus the student's birth year
Postgraduate	A dummy variable that equals 1 if the student is an postgraduate student, and 0 otherwise.
African	A dummy variable that equals 1 if the student's ethnicity is fully- or partly- African, and 0 otherwise.
East_Asia	A dummy variable that equals 1 if the student's ethnicity is fully- or partly- East Asian, and 0 otherwise (see Appendix A).
Hispanic	A dummy variable that equals 1 if the student's ethnicity is fully- or partly- Hispanic, and 0 otherwise.
Indigenous	A dummy variable that equals 1 if the student's ethnicity is fully- or partly- Indigenous Australian or Torres Strait Islander, and 0 otherwise.
Mid_East	A dummy variable that equals 1 if the student's ethnicity is fully- or partly- Middle Eastern, and 0 otherwise.
South_Asia	A dummy variable that equals 1 if the student's ethnicity is fully- or partly- South Asian, and 0 otherwise (see Appendix A).
Soueast_Asia	A dummy variable that equals 1 if the student's ethnicity is fully- or partly- Southeast Asian, and 0 otherwise (see Appendix A).
Other	A dummy variable that equals 1 if the student does not belong to any of the above ethnicities, and 0 otherwise.

Appendix D. Factor loadings and Cronbach's alphas for learning approach measures

Survey Item	Cronbach's α	Factor loading
Deepmotive_Factor1	0.753	
I find that at times studying gives me a feeling of deep personal satisfaction.		0.604
I feel that virtually any topic can be highly interesting once I get into it.		0.574
I find that studying academic topics can at times be as exciting as a good novel.		0.641
I work hard at my studies because I find the material interesting.		0.637
I come to most classes with questions in mind that I want answering.		0.556
Deepstrategy_Factor1	0.726	
I find that I have to do enough work on a topic so that I can form my own conclusions before I am satisfied.		0.501
I find most new topics interesting and often spend extra time trying to obtain more information about them.		0.595
I test myself on important topics until I understand them completely.		0.608
I spend a lot of my free time finding out more about interesting topics which have been discussed in different classes.		0.604
I make a point of looking at most of the suggested material that go with the classes.		0.469
Surfacemotive_Factor1	0.733	
My aim is to pass units while doing as little work as possible.		0.637
I do not find my units very interesting, so I keep my work to a minimum.		0.661
I find I can get by in most assessments by memorising key sections rather than trying to understand them.		0.459
I find it is not helpful to study topics in depth. It confuses and wastes time, when all you need is 50 marks out of 100 to pass a unit.		0.659
I see no point in learning material which is not likely to be in the examination.		0.502
Surfacestrategy_Factor1	0.652	
I only study seriously what's given out in units or in unit outlines.		0.484
I learn some things by rote, going over and over them until I know them by heart; even if I do not understand them.		0.409
I generally restrict my study to what is specifically set as I think it is unnecessary to do anything extra.		0.619
I believe that lecturers shouldn't expect students to spend significant amounts of time studying material everyone knows won't be examined.		0.543
I find the best way to pass exams is to try to remember the solutions to questions/exercises covered in class.		0.478

(*continued on next page*)

Survey Item	Cronbach's α	Factor loading
Deep_Factor1	0.857	
I find that at times studying gives me a feeling of deep personal satisfaction.		0.621
I find that I have to do enough work on a topic so that I can form my own conclusions before I am satisfied.		0.530
I feel that virtually any topic can be highly interesting once I get into it.		0.591
I find most new topics interesting and often spend extra time trying to obtain more information about them.		0.743
I find that studying academic topics can at times be as exciting as a good novel.		0.638
I test myself on important topics until I understand them completely.		0.593
I work hard at my studies because I find the material interesting.		0.683
I spend a lot of my free time finding out more about interesting topics which have been discussed in different classes.		0.621
I come to most classes with questions in mind that I want answering.		0.595
I make a point of looking at most of the suggested material that go with the classes.		0.519
Surface_Factor1	0.821	
My aim is to pass units while doing as little work as possible.		0.613
I only study seriously what's given out in units or in unit outlines.		0.452
I do not find my units very interesting, so I keep my work to a minimum.		0.638
I learn some things by rote, going over and over them until I know them by heart; even if I do not understand them.		0.447
I find I can get by in most assessments by memorising key sections rather than trying to understand them.		0.524
I generally restrict my study to what is specifically set as I think it is unnecessary to do anything extra.		0.647
I find it is not helpful to study topics in depth. It confuses and wastes time, when all you need is 50 marks out of 100 to pass a unit.		0.613
I believe that lecturers shouldn't expect students to spend significant amounts of time studying material everyone knows won't be examined.		0.572
I see no point in learning material which is not likely to be in the examination.		0.610
I find the best way to pass exams is to try to remember the solutions to questions/exercises covered in class.		0.502

Appendix E. Eigenvalues of Principal Factor Analyses

Concept	Eigenvalue
Deepmotive_Factor1	1.820
Deepmotive_Factor2	0.016
Deepstrategy_Factor1	1.687
Deepstrategy_Factor2	0.061
Surfacemotive_Factor1	1.740
Surfacemotive_Factor2	0.064
Surfacestrategy_Factor1	1.307
Surfacestrategy_Factor2	0.055
Deep_Factor1	3.802
Deep_Factor2	0.316
Surface_Factor1	3.207
Surface_Factor2	0.540

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Table 1
Descriptive statistics.

	Count	Mean	SD	P25	Median	P75
Deepmotive_Factor1	371	0.003	0.840	-0.555	-0.045	0.529
Deepstrategy_Factor1	371	0.001	0.837	-0.513	0.004	0.561
Surfacemotive_Factor1	371	-0.003	0.836	-0.660	-0.086	0.600
Surfacestrategy_Factor1	371	-0.001	0.777	-0.523	0.020	0.554
Deep_Factor1	371	0.001	0.917	-0.576	-0.056	0.617
Surface_Factor1	371	-0.002	0.899	-0.632	-0.016	0.568
International	371	0.569	0.496	0.000	1.000	1.000
Gender_Female	371	0.474	0.500	0.000	0.000	1.000
Gender_Other	371	0.019	0.136	0.000	0.000	0.000
Major_Accounting	371	0.563	0.497	0.000	1.000	1.000
Part_Time	371	0.539	0.499	0.000	1.000	1.000
Compulsory	371	0.730	0.444	0.000	1.000	1.000
Num_Units	371	3.768	0.535	4.000	4.000	4.000
Age	371	3.087	0.104	2.996	3.045	3.135
Postgraduate	371	0.310	0.463	0.000	0.000	1.000
African	371	0.005	0.073	0.000	0.000	0.000
Caucasian	371	0.216	0.411	0.000	0.000	0.000
East_Asia	371	0.431	0.496	0.000	0.000	1.000
Hispanic	371	0.008	0.090	0.000	0.000	0.000
Indigenous	371	0.003	0.052	0.000	0.000	0.000
Mid_East	371	0.019	0.136	0.000	0.000	0.000
South_Asia	371	0.137	0.345	0.000	0.000	0.000
Soueast_Asia	371	0.199	0.400	0.000	0.000	0.000
Other	371	0.024	0.154	0.000	0.000	0.000

Table 2
Student breakdown by ethnicity [a].

Ethnicity	Domestic	International	Total
African	2	0	2
Caucasian	78	2	80
East Asia (e.g., China Mainland, Hongkong, Taiwan, Korea, Japan)	24	136	160
Hispanic	3	0	3
Indigenous Australia or Torres Strait Islander	1	0	1
Middle Eastern	6	1	7
South Asia (e.g., India, Pakistan, Bangladesh, Sri Lanka, Afghanistan, Bhutan, Maldive, Nepal)	29	22	51
Southeast Asia (e.g., Thailand, Philippines, Indonesia, Malaysia, Singapore, Vietnam, Cambodia, Laos, Brunei)	26	48	74
Other (Not belong to any of the ethnic groups above)	5	4	9
Total	174	213	387

[a] The total number of observations in Table 2 is greater than 371 (see Table 1). This is because some students belong to more than one ethnic group, e.g. mix of East Asian and South-Eastern Asian.

Table 3
Learning approaches of international and domestic students (Baseline sample).

	(1) *Deep motive _Factor1*	(2) *Deep strategy _Factor1*	(3) *Surface motive _Factor1*	(4) *Surface strategy _Factor1*	(5) *Deep _Factor1*	(6) *Surface _Factor1*
International	0.427***	0.464***	0.042	-0.270**	0.508***	-0.155
	(3.756)	(4.139)	(0.359)	(-2.479)	(4.132)	(-1.219)
Gender_Female	-0.027	-0.058	-0.123	0.009	-0.048	-0.077
	(-0.315)	(-0.683)	(-1.375)	(0.113)	(-0.512)	(-0.803)
Gender_Other	-0.098	-0.477	0.287	0.266	-0.315	0.354
	(-0.314)	(-1.538)	(0.876)	(0.884)	(-0.926)	(1.007)
Major_Accounting	-0.073	-0.151	0.056	0.020	-0.133	0.056
	(-0.605)	(-1.271)	(0.443)	(0.177)	(-1.017)	(0.418)
Part_Time	-0.014	-0.022	-0.004	0.001	-0.017	-0.005
	(-0.138)	(-0.222)	(-0.040)	(0.009)	(-0.155)	(-0.045)
Compulsory	0.004	-0.027	-0.016	-0.071	-0.011	-0.049
	(0.045)	(-0.275)	(-0.155)	(-0.747)	(-0.100)	(-0.443)
Num_Units	-0.013	-0.038	0.000	-0.031	-0.030	-0.027
	(-0.156)	(-0.461)	(0.003)	(-0.391)	(-0.328)	(-0.286)
Age	0.031	0.168	-0.316	-0.402	0.147	-0.490
	(0.059)	(0.323)	(-0.577)	(-0.797)	(0.258)	(-0.832)
Postgraduate	0.109	0.019	0.147	0.109	0.068	0.175
	(0.663)	(0.116)	(0.862)	(0.693)	(0.384)	(0.955)
Constant	-0.260	-0.490	0.939	1.507	-0.530	1.682
	(-0.152)	(-0.291)	(0.530)	(0.924)	(-0.288)	(0.883)
Observations	371	371	371	371	371	371
Adjusted R^2	0.0741	0.0909	-0.0120	0.00838	0.0903	-0.0108

Table 4
Baseline sample with additional variables capturing student ethnicity [a].

	(1) *Deep motive _Factor1*	(2) *Deep strategy _Factor1*	(3) *Surface motive _Factor1*	(4) *Surface strategy _Factor1*	(5) *Deep _Factor1*	(6) *Surface _Factor1*
International	0.382***	0.501***	-0.088	-0.331***	0.508***	-0.274*
	(3.017)	(4.015)	(-0.668)	(-2.712)	(3.713)	(-1.927)
Gender_Female	-0.011	-0.035	-0.134	-0.005	-0.024	-0.094
	(-0.131)	(-0.412)	(-1.468)	(-0.059)	(-0.257)	(-0.955)
Gender_Other	-0.135	-0.549*	0.338	0.286	-0.379	0.401
	(-0.429)	(-1.766)	(1.028)	(0.942)	(-1.114)	(1.133)
Major_Accounting	-0.074	-0.124	-0.003	-0.012	-0.116	0.000
	(-0.605)	(-1.032)	(-0.024)	(-0.097)	(-0.873)	(0.001)
Part_Time	0.030	-0.016	0.057	0.031	0.010	0.050
	(0.289)	(-0.161)	(0.530)	(0.311)	(0.090)	(0.429)
Compulsory	0.033	0.004	-0.013	-0.081	0.022	-0.054
	(0.323)	(0.042)	(-0.121)	(-0.829)	(0.200)	(-0.480)
Num_Units	0.015	-0.017	0.007	-0.034	-0.001	-0.024
	(0.173)	(-0.207)	(0.079)	(-0.415)	(-0.014)	(-0.256)
Age	0.129	0.234	-0.335	-0.468	0.247	-0.538
	(0.242)	(0.447)	(-0.604)	(-0.913)	(0.431)	(-0.901)
Postgraduate	0.042	-0.041	0.129	0.116	-0.007	0.170
	(0.250)	(-0.250)	(0.737)	(0.717)	(-0.040)	(0.908)
African	-0.041	-0.430	0.494	0.350	-0.279	0.579
	(-0.064)	(-0.691)	(0.751)	(0.574)	(-0.410)	(0.817)
East_Asia	0.193	-0.008	0.323**	0.118	0.100	0.267*
	(1.412)	(-0.061)	(2.264)	(0.898)	(0.680)	(1.735)
Hispanic	-0.029	-0.108	-0.146	-0.241	-0.063	-0.264
	(-0.057)	(-0.212)	(-0.271)	(-0.485)	(-0.113)	(-0.456)
Indigenous	-0.598	-0.355	0.221	-0.049	-0.637	0.032
	(-0.689)	(-0.415)	(0.245)	(-0.059)	(-0.680)	(0.033)
Mid_East	-0.140	-0.400	0.172	-0.138	-0.301	0.028
	(-0.438)	(-1.275)	(0.517)	(-0.450)	(-0.875)	(0.077)
South_Asia	0.315**	0.266*	0.065	-0.102	0.337**	-0.031
	(2.094)	(1.792)	(0.417)	(-0.705)	(2.076)	(-0.185)
Soueast_Asia	-0.003	-0.172	0.248*	0.077	-0.114	0.209
	(-0.020)	(-1.258)	(1.711)	(0.579)	(-0.760)	(1.341)
Other	-0.120	-0.204	0.386	0.317	-0.172	0.429
	(-0.394)	(-0.681)	(1.218)	(1.081)	(-0.525)	(1.257)
Constant	-0.788	-0.808	0.840	1.712	-1.035	1.738
	(-0.456)	(-0.475)	(0.466)	(1.027)	(-0.555)	(0.896)
Observations	371	371	371	371	371	371
Adjusted R^2	0.0757	0.0992	-0.0139	-0.00177	0.0966	-0.0155

[a] Caucasian is the default ethnic group and is thus excluded from the analysis.

Table 5
Baseline sample divided by international/domestic status, with ethnicity variables [a].

Panel A: Domestic

	(1) *Deep motive _Factor1*	(2) *Deep strategy _Factor1*	(3) *Surface motive _Factor1*	(4) *Surface strategy _Factor1*	(5) *Deep _Factor1*	(6) *Surface _Factor1*
Gender_Female	0.202	0.040	-0.062	0.064	0.150	-0.011
	(1.454)	(0.302)	(-0.477)	(0.528)	(1.014)	(-0.077)
Gender_Other	-0.164	-1.159**	1.482***	1.275**	-0.717	1.695***
	(-0.277)	(-2.034)	(2.652)	(2.455)	(-1.134)	(2.875)
Major_Accounting	-0.059	-0.159	-0.027	-0.045	-0.119	-0.038
	(-0.381)	(-1.058)	(-0.184)	(-0.325)	(-0.712)	(-0.243)
Part_Time	-0.047	-0.076	0.050	0.095	-0.075	0.073
	(-0.263)	(-0.439)	(0.294)	(0.597)	(-0.389)	(0.406)
Compulsory	-0.099	-0.098	-0.002	-0.074	-0.123	-0.037
	(-0.634)	(-0.650)	(-0.011)	(-0.540)	(-0.736)	(-0.235)
Num_Units	-0.047	-0.011	0.079	0.095	-0.034	0.100
	(-0.406)	(-0.097)	(0.719)	(0.938)	(-0.277)	(0.871)
Age	-0.252	0.898	0.472	0.458	0.401	0.408
	(-0.261)	(0.970)	(0.520)	(0.542)	(0.390)	(0.425)
Postgraduate	0.341	0.307	-0.009	0.320	0.386	0.157
	(0.667)	(0.625)	(-0.019)	(0.714)	(0.708)	(0.308)
African	0.013	-0.371	0.523	0.390	-0.215	0.617
	(0.020)	(-0.603)	(0.867)	(0.695)	(-0.314)	(0.970)
East_Asia	-0.116	-0.192	0.366*	0.250	-0.185	0.360*
	(-0.577)	(-0.991)	(1.923)	(1.415)	(-0.858)	(1.795)
Hispanic	-0.035	-0.085	-0.113	-0.216	-0.047	-0.232
	(-0.067)	(-0.169)	(-0.230)	(-0.471)	(-0.085)	(-0.446)
Indigenous	-0.576	-0.500	0.076	-0.206	-0.668	-0.148
	(-0.612)	(-0.552)	(0.085)	(-0.249)	(-0.665)	(-0.158)
Mid_East	-0.066	-0.431	0.329	0.079	-0.266	0.261
	(-0.184)	(-1.258)	(0.978)	(0.253)	(-0.699)	(0.738)
South_Asia	0.416**	0.246	0.172	0.051	0.387*	0.123
	(2.249)	(1.383)	(0.985)	(0.313)	(1.959)	(0.667)
Soueast_Asia	-0.015	-0.196	0.199	0.052	-0.141	0.155
	(-0.077)	(-1.083)	(1.125)	(0.318)	(-0.701)	(0.828)
Other	-0.082	-0.208	0.478	0.399	-0.197	0.547
	(-0.192)	(-0.509)	(1.192)	(1.069)	(-0.433)	(1.291)
Constant	0.670	-2.699	-1.926	-1.703	-1.249	-1.689
	(0.212)	(-0.888)	(-0.646)	(-0.614)	(-0.370)	(-0.537)
Observations	160	160	160	160	160	160
Adjusted R^2	-0.0301	0.0105	-0.00618	-0.0245	-0.0132	-0.00353

(*continued on next page*)

Table 5 (*continued*)

Panel B: International

	(1) *Deep motive _Factor1*	(2) *Deep strategy _Factor1*	(3) *Surface motive _Factor1*	(4) *Surface strategy _Factor1*	(5) *Deep _Factor1*	(6) *Surface _Factor1*
Gender_Female	-0.155	-0.071	-0.186	-0.057	-0.134	-0.157
	(-1.349)	(-0.610)	(-1.445)	(-0.488)	(-1.060)	(-1.132)
Gender_Other	-0.149	-0.359	-0.155	-0.151	-0.293	-0.157
	(-0.393)	(-0.942)	(-0.367)	(-0.393)	(-0.709)	(-0.344)
Major_Accounting	0.051	0.113	0.003	-0.076	0.079	-0.020
	(0.238)	(0.520)	(0.012)	(-0.347)	(0.336)	(-0.075)
Part_Time	0.092	0.046	0.049	-0.030	0.081	0.013
	(0.707)	(0.350)	(0.338)	(-0.227)	(0.572)	(0.086)
Compulsory	0.023	-0.019	-0.011	-0.058	0.011	-0.048
	(0.161)	(-0.133)	(-0.070)	(-0.406)	(0.071)	(-0.282)
Num_Units	0.080	-0.016	-0.055	-0.175	0.037	-0.157
	(0.605)	(-0.120)	(-0.371)	(-1.299)	(0.256)	(-0.982)
Age	0.597	0.150	-0.798	-0.918	0.474	-1.029
	(0.898)	(0.223)	(-1.073)	(-1.359)	(0.652)	(-1.283)
Postgraduate	0.080	0.146	0.194	0.095	0.108	0.207
	(0.337)	(0.614)	(0.735)	(0.395)	(0.418)	(0.727)
African	-	-	-	-	-	-
East_Asia	0.784*	0.738*	0.310	-0.436	0.867*	0.008
	(1.862)	(1.738)	(0.658)	(-1.018)	(1.882)	(0.016)
Hispanic	-	-	-	-	-	-
Indigenous	-	-	-	-	-	-
Mid_East	0.018	0.430	-0.420	-1.933**	0.201	-1.345
	(0.019)	(0.451)	(-0.397)	(-2.012)	(0.194)	(-1.179)
South_Asia	0.694	0.992**	0.019	-0.663	0.969*	-0.320
	(1.518)	(2.155)	(0.037)	(-1.427)	(1.937)	(-0.580)
Soueast_Asia	0.536	0.520	0.277	-0.408	0.596	0.015
	(1.286)	(1.240)	(0.593)	(-0.964)	(1.306)	(0.030)
Other	0.391	0.559	0.367	-0.143	0.601	0.200
	(0.665)	(0.944)	(0.558)	(-0.240)	(0.935)	(0.283)
Constant	-2.691	-0.975	2.450	3.961*	-2.234	3.811
	(-1.219)	(-0.439)	(0.993)	(1.767)	(-0.925)	(1.431)
Observations	211	211	211	211	211	211
Adjusted R^2	-0.00496	-0.0114	-0.0344	-0.0171	-0.00810	-0.0269

[a] Panel B excludes ethnicities which international students have not identified with.

Table 6
Baseline sample divided by ethnicity [a].

Panel A: Caucasian

	(1) *Deep motive Factor1*	(2) *Deep strategy Factor1*	(3) *Surface motive Factor1*	(4) *Surface strategy Factor1*	(5) *Deep Factor1*	(6) *Surface Factor1*
International	0.185	0.125	-0.659	-0.990*	0.177	-1.058
	(0.264)	(0.183)	(-1.067)	(-1.711)	(0.242)	(-1.650)
Gender_Female	0.008	0.011	0.126	0.146	0.016	0.158
	(0.039)	(0.058)	(0.695)	(0.860)	(0.073)	(0.844)
Gender_Other	-0.131	-1.018*	1.642***	1.315**	-0.614	1.822***
	(-0.212)	(-1.693)	(3.010)	(2.572)	(-0.947)	(3.217)
Major_Accounting	-0.075	-0.256	-0.079	-0.124	-0.185	-0.113
	(-0.363)	(-1.268)	(-0.429)	(-0.723)	(-0.849)	(-0.593)
Part_Time	-0.076	-0.156	0.059	0.386	-0.150	0.250
	(-0.221)	(-0.469)	(0.196)	(1.365)	(-0.418)	(0.797)
Compulsory	-0.158	-0.129	0.039	0.063	-0.155	0.084
	(-0.683)	(-0.574)	(0.191)	(0.328)	(-0.640)	(0.398)
Num_Units	-0.178	-0.086	0.034	0.068	-0.151	0.067
	(-1.076)	(-0.534)	(0.232)	(0.495)	(-0.869)	(0.439)
Age	-1.895	0.264	0.364	1.330	-0.940	0.856
	(-1.388)	(0.199)	(0.303)	(1.179)	(-0.656)	(0.685)
Postgraduate	0.696	0.017	0.675	1.226*	0.382	1.158*
	(0.933)	(0.023)	(1.026)	(1.987)	(0.488)	(1.694)
Constant	6.314	-0.388	-1.553	-4.609	3.418	-3.229
	(1.393)	(-0.088)	(-0.388)	(-1.230)	(0.719)	(-0.778)
Observations	80	80	80	80	80	80
Adjusted R^2	-0.0609	-0.0280	0.0338	0.0741	-0.0637	0.0904

Panel B: East Asian

	(1) *Deep motive Factor1*	(2) *Deep strategy Factor1*	(3) *Surface motive Factor1*	(4) *Surface strategy Factor1*	(5) *Deep Factor1*	(6) *Surface Factor1*
International	0.589***	0.602***	-0.081	-0.345*	0.683***	-0.262
	(2.873)	(2.886)	(-0.344)	(-1.817)	(3.016)	(-1.103)
Gender_Female	-0.030	0.040	-0.199	-0.079	0.008	-0.160
	(-0.240)	(0.310)	(-1.368)	(-0.672)	(0.056)	(-1.087)
Gender_Other	-0.350	-0.638	-0.388	-0.507	-0.564	-0.495
	(-0.860)	(-1.541)	(-0.832)	(-1.344)	(-1.254)	(-1.050)
Major_Accounting	-0.377	-0.232	0.062	0.144	-0.368	0.173
	(-1.484)	(-0.897)	(0.211)	(0.613)	(-1.311)	(0.586)

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Table 6 (*continued*)

	(1) *Deep motive Factor1*	(2) *Deep strategy Factor1*	(3) *Surface motive Factor1*	(4) *Surface strategy Factor1*	(5) *Deep _Factor1*	(6) *Surface _Factor1*
Part_Time	-0.112	-0.252	-0.110	-0.260*	-0.214	-0.228
	(-0.715)	(-1.583)	(-0.615)	(-1.791)	(-1.238)	(-1.259)
Compulsory	0.039	-0.092	-0.248	-0.401***	-0.032	-0.403**
	(0.239)	(-0.549)	(-1.314)	(-2.629)	(-0.174)	(-2.112)
Num_Units	0.086	-0.074	-0.148	-0.254**	0.005	-0.262*
	(0.641)	(-0.538)	(-0.962)	(-2.042)	(0.033)	(-1.680)
Age	1.063	1.479*	-0.360	-0.291	1.506*	-0.396
	(1.338)	(1.828)	(-0.395)	(-0.395)	(1.716)	(-0.431)
Postgraduate	-0.358	-0.281	0.180	0.214	-0.391	0.294
	(-1.309)	(-1.008)	(0.575)	(0.842)	(-1.294)	(0.927)
Constant	-3.568	-4.304*	2.058	2.394	-4.636	2.723
	(-1.403)	(-1.662)	(0.706)	(1.016)	(-1.651)	(0.924)
Observations	160	160	160	160	160	160
Adjusted R^2	0.0789	0.0929	-0.0166	0.0763	0.0949	0.0286

Panel C: South Asian

	(1) *Deep motive _Factor1*	(2) *Deep strategy _Factor1*	(3) *Surface motive _Factor1*	(4) *Surface strategy _Factor1*	(5) *Deep _Factor1*	(6) *Surface _Factor1*
International	0.439	0.701	-2.168***	-2.556***	0.678	-2.810***
	(0.519)	(0.923)	(-2.708)	(-3.161)	(0.770)	(-3.114)
Gender_Female	0.298	0.110	-0.013	0.369	0.238	0.206
	(1.182)	(0.484)	(-0.054)	(1.528)	(0.904)	(0.765)
Gender_Other	0.381	0.528	2.687**	3.292***	0.487	3.522***
	(0.338)	(0.520)	(2.513)	(3.048)	(0.414)	(2.922)
Major_Accounting	0.013	-0.079	0.283	0.476	-0.018	0.436
	(0.038)	(-0.267)	(0.903)	(1.504)	(-0.052)	(1.236)
Part_Time	0.490*	0.531**	-0.524**	-0.372	0.595**	-0.531*
	(1.887)	(2.274)	(-2.134)	(-1.499)	(2.203)	(-1.918)
Compulsory	0.412*	0.351	0.055	-0.007	0.436*	0.054
	(1.699)	(1.607)	(0.240)	(-0.028)	(1.727)	(0.210)
Num_Units	0.268	0.285	0.227	0.381*	0.307	0.344
	(1.173)	(1.385)	(1.049)	(1.744)	(1.288)	(1.410)
Age	2.283*	0.455	-1.276	-0.311	1.586	-1.110
	(1.816)	(0.402)	(-1.072)	(-0.258)	(1.211)	(-0.827)
Postgraduate	-0.577	-0.273	2.168**	2.168**	-0.499	2.582***
	(-0.663)	(-0.348)	(2.629)	(2.603)	(-0.550)	(2.778)

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Table 6 (*continued*)

	(1) *Deep motive Factor1*	(2) *Deep strategy Factor1*	(3) *Surface motive Factor1*	(4) *Surface strategy Factor1*	(5) *Deep _Factor1*	(6) *Surface _Factor1*
Constant	-8.498**	-2.996	3.269	-0.377	-6.619	2.284
	(-2.046)	(-0.802)	(0.831)	(-0.095)	(-1.529)	(0.515)
Observations	51	51	51	51	51	51
Adjusted R^2	0.0633	0.184	0.103	0.223	0.120	0.180

Panel D: Southeast Asian

	(1) *Deep motive Factor1*	(2) *Deep strategy Factor1*	(3) *Surface motive Factor1*	(4) *Surface strategy Factor1*	(5) *Deep _Factor1*	(6) *Surface _Factor1*
International	0.427*	0.616***	0.107	-0.094	0.599**	-0.000
	(1.893)	(2.837)	(0.501)	(-0.443)	(2.476)	(-0.002)
Gender_Female	-0.106	-0.205	-0.283	-0.276	-0.171	-0.374*
	(-0.497)	(-0.993)	(-1.392)	(-1.374)	(-0.743)	(-1.700)
Gender_Other	-	-	-	-	-	-
Major_Accounting	-0.448	-0.138	0.045	-0.140	-0.326	-0.068
	(-1.374)	(-0.439)	(0.147)	(-0.459)	(-0.934)	(-0.202)
Part_Time	-0.017	0.072	0.267	0.174	0.037	0.250
	(-0.081)	(0.352)	(1.324)	(0.875)	(0.161)	(1.149)
Compulsory	0.178	0.124	0.141	0.089	0.164	0.120
	(0.744)	(0.536)	(0.618)	(0.393)	(0.637)	(0.486)
Num_Units	-0.023	-0.083	0.134	0.022	-0.058	0.080
	(-0.102)	(-0.389)	(0.632)	(0.106)	(-0.244)	(0.350)
Age	-0.963	-1.645	1.599	1.373	-1.503	1.758
	(-0.665)	(-1.181)	(1.162)	(1.011)	(-0.968)	(1.183)
Postgraduate	-0.064	0.211	-0.573	-0.723	0.115	-0.773
	(-0.118)	(0.405)	(-1.117)	(-1.428)	(0.199)	(-1.395)
Constant	2.948	4.878	-5.477	-4.013	4.479	-5.503
	(0.632)	(1.086)	(-1.235)	(-0.917)	(0.895)	(-1.148)
Observations	74	74	74	74	74	74
Adjusted R^2	-0.0156	0.0302	-0.0330	-0.0240	0.0105	-0.0145

[a] Ethnic groups with too few observations for analysis are not shown as a separate panel.

Table 7
Baseline sample divided by gender, with ethnicity variables [a].

Panel A: Female

	(1) *Deep motive _Factor1*	(2) *Deep strategy _Factor1*	(3) *Surface motive _Factor1*	(4) *Surface strategy _Factor1*	(5) *Deep _Factor1*	(6) *Surface _Factor1*
International	0.070	0.356*	-0.066	-0.285	0.237	-0.242
	(0.402)	(1.905)	(-0.346)	(-1.638)	(1.214)	(-1.218)
Major_Accounting	-0.237	-0.118	0.004	-0.100	-0.194	-0.038
	(-1.369)	(-0.640)	(0.022)	(-0.582)	(-1.007)	(-0.195)
Part_Time	-0.050	-0.014	-0.243	-0.237*	-0.034	-0.298*
	(-0.356)	(-0.095)	(-1.597)	(-1.706)	(-0.215)	(-1.870)
Compulsory	-0.012	-0.087	-0.069	-0.146	-0.054	-0.135
	(-0.081)	(-0.542)	(-0.423)	(-0.981)	(-0.325)	(-0.792)
Num_Units	0.016	0.011	0.003	0.010	0.009	-0.006
	(0.135)	(0.084)	(0.022)	(0.084)	(0.064)	(-0.040)
Age	0.780	0.537	-0.592	-1.077	0.793	-0.972
	(1.049)	(0.678)	(-0.734)	(-1.458)	(0.957)	(-1.151)
Postgraduate	-0.070	-0.019	0.106	0.100	-0.046	0.152
	(-0.282)	(-0.071)	(0.395)	(0.407)	(-0.166)	(0.540)
African	-	-	-	-	-	-
East_Asia	0.404**	0.094	0.080	-0.150	0.283	-0.035
	(2.048)	(0.449)	(0.375)	(-0.766)	(1.285)	(-0.155)
Hispanic	-0.338	-0.086	0.163	-0.673	-0.241	-0.333
	(-0.433)	(-0.103)	(0.192)	(-0.868)	(-0.277)	(-0.376)
Indigenous	-	-	-	-	-	-
Mid_East	0.408	-0.569	0.564	0.449	-0.072	0.645
	(0.730)	(-0.955)	(0.931)	(0.808)	(-0.115)	(1.015)
South_Asia	0.516*	0.284	0.078	-0.003	0.463	0.037
	(1.971)	(1.017)	(0.275)	(-0.013)	(1.584)	(0.125)
Soueast_Asia	0.206	-0.161	0.070	-0.140	0.016	-0.038
	(1.048)	(-0.768)	(0.328)	(-0.719)	(0.074)	(-0.172)
Other	0.604	0.663	-0.716	-0.517	0.713	-0.795
	(1.285)	(1.322)	(-1.402)	(-1.106)	(1.360)	(-1.487)
Constant	-2.601	-1.800	1.876	3.820	-2.619	3.379
	(-1.097)	(-0.712)	(0.729)	(1.621)	(-0.990)	(1.254)
Observations	176	176	176	176	176	176
Adjusted R^2	0.0595	0.0651	-0.0317	0.0158	0.0657	-0.0128

(*continued on next page*)

Table 7 (*continued*)

Panel B: Male

	(1) *Deep motive _Factor1*	(2) *Deep strategy _Factor1*	(3) *Surface motive _Factor1*	(4) *Surface strategy _Factor1*	(5) *Deep _Factor1*	(6) *Surface _Factor1*
International	0.706***	0.583***	-0.016	-0.279	0.747***	-0.188
	(3.688)	(3.263)	(-0.083)	(-1.592)	(3.667)	(-0.904)
Major_Accounting	0.103	-0.115	-0.082	0.006	-0.018	-0.049
	(0.577)	(-0.690)	(-0.459)	(0.035)	(-0.092)	(-0.253)
Part_Time	0.160	-0.009	0.311*	0.278*	0.088	0.353**
	(0.987)	(-0.061)	(1.919)	(1.877)	(0.509)	(2.009)
Compulsory	0.048	0.075	-0.001	-0.075	0.074	-0.034
	(0.338)	(0.564)	(-0.005)	(-0.575)	(0.484)	(-0.221)
Num_Units	0.001	-0.045	0.031	-0.036	-0.021	-0.008
	(0.011)	(-0.409)	(0.262)	(-0.331)	(-0.165)	(-0.063)
Age	-0.536	-0.013	0.027	0.217	-0.283	0.024
	(-0.683)	(-0.018)	(0.034)	(0.302)	(-0.339)	(0.029)
Postgraduate	0.103	-0.037	0.007	0.006	0.023	0.023
	(0.439)	(-0.169)	(0.030)	(0.028)	(0.093)	(0.089)
African	-0.212	-0.447	0.631	0.202	-0.384	0.573
	(-0.303)	(-0.685)	(0.900)	(0.315)	(-0.516)	(0.755)
East_Asia	0.072	-0.107	0.588***	0.401**	-0.025	0.584***
	(0.358)	(-0.570)	(2.927)	(2.186)	(-0.117)	(2.689)
Hispanic	0.208	-0.131	-0.252	0.236	0.062	-0.045
	(0.296)	(-0.199)	(-0.359)	(0.367)	(0.083)	(-0.059)
Indigenous	-0.046	0.273	-0.349	-0.508	0.027	-0.599
	(-0.048)	(0.308)	(-0.368)	(-0.586)	(0.026)	(-0.583)
Mid_East	-0.352	-0.388	0.100	-0.271	-0.421	-0.109
	(-0.879)	(-1.038)	(0.250)	(-0.738)	(-0.987)	(-0.250)
South_Asia	0.166	0.168	0.095	-0.145	0.199	-0.038
	(0.855)	(0.927)	(0.488)	(-0.816)	(0.968)	(-0.181)
Soueast_Asia	-0.161	-0.140	0.404*	0.298	-0.186	0.449**
	(-0.787)	(-0.731)	(1.969)	(1.592)	(-0.854)	(2.024)
Other	-0.673	-0.785**	0.997**	0.744**	-0.802*	1.084**
	(-1.652)	(-2.063)	(2.445)	(1.994)	(-1.850)	(2.455)
Constant	1.070	0.028	-0.622	-0.687	0.517	-0.390
	(0.415)	(0.012)	(-0.241)	(-0.291)	(0.189)	(-0.140)
Observations	188	188	188	188	188	188
Adjusted R^2	0.101	0.0942	0.0187	0.0318	0.105	0.0240

[a] We do not include a separate panel for students who identify as Other (neither female nor male) due to its limited sample size.