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Paper:

Bretag, T., Harper, R., Rundle, K., Newton, P., Ellis, C., Saddiqui, S. & van Haeringen, K. (2019). Contract cheating in Australian higher education: a comparison of non-university higher education providers and universities. *Assessment & Evaluation in Higher Education*, 1-15.

<http://dx.doi.org/10.1080/02602938.2019.1614146>

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Contract cheating in Australian higher education: A comparison of non-university higher education providers and universities

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This paper reports on one aspect of a nationally funded research project on contract cheating in Australian higher education. The project explored students' and educators' experiences of contract cheating, and the contextual factors that may influence it. This paper reports the key findings from non-university higher education providers (NUHEPs). It compares survey responses from 961 students and 91 educators at four NUHEPs with previously reported findings from eight universities (14,086 students and 1,147 staff). NUHEP and university students report engaging in contract cheating in similar ways. However, while NUHEP educators spend more time teaching academic literacies and discussing contract cheating, NUHEP students are 12 times more likely than university students to report use of a professional academic writing service. Both NUHEP and university educators require systematic professional development regarding the relationship between the teaching and learning environment and students' contract cheating behaviour. NUHEPs need to be cognisant of students' vulnerability to commercial contract cheating services, and ensure they have access to timely academic and social support.

Keywords: contract cheating, higher education providers, NUHEPs, universities, academic integrity

Introduction

In the Australian context, there are two main types of higher education provider: universities and non-universities. The latter group, referred to as non-university higher education providers (NUHEPs), offer a broad range of educational experiences for students, and their institutional sub-categories include Technical and Further Education (TAFE), faith-based not-for-profit, other not-for-profit, and for-profit (TEQSA 2017a). NUHEPs currently outnumber

universities by about three to one (127 vs 43) (TEQSA 2018b). At the time that this research was undertaken, there were 166 registered NUHEPs, with seven NUHEPs that had been registered in 2015 no longer being registered at the end of 2016, and seven new providers gaining registration in 2016 (TEQSA 2018c). Table 1 provides details of Equivalent Full-time Student Load (EFTSL) of domestic and international students in Australian higher education, according to the four main categories of Universities, For-Profit, Not-for-Profit and TAFE.

Table 1: Domestic and overseas students (EFTSL), 2013-2016

		2013	2014	2015	2016	% change between 2015 and 2016	% change between 2013 and 2016
Universities	Domestic	662,667	685,354	694,631	703,683	1%	6%
	Overseas	224,804	233,179	242,646	261,652	8%	16%
	Total	887,471	918,533	937,277	965,334	3%	9%
For-Profit	Domestic	18,759	21,294	23,281	23,063	-1%	23%
	Overseas	19,030	23,966	27,289	30,894	13%	62%
	Total	37,788	45,260	50,570	53,957	7%	43%
Not-for-Profit	Domestic	13,806	14,047	15,063	15,764	5%	14%
	Overseas	2,972	3,507	4,907	6,012	23%	102%
	Total	16,778	17,554	19,970	21,776	9%	30%
TAFE	Domestic	2,531	2,583	2,742	2,727	-1%	8%
	Overseas	1,260	1,530	1,824	2,195	20%	74%
	Total	3,791	4,114	4,566	4,922	8%	30%
Sector	Domestic	697,763	723,279	735,717	745,236	1%	7%
	Overseas	248,065	262,182	276,666	300,753	9%	21%
	Sector Total	945,828	985,461	1,012,383	1,045,989	3%	11%

Source: TEQSA (2018b). *Statistics report on TEQSA registered higher education providers* <https://www.teqsa.gov.au/sites/g/files/net2046/f/statistics-report-2018-web.pdf?v=1534729727>, p. 15.

As shown in Table 1, there has been a marked increase in international students enrolled in all categories of Australian higher education. Of the NUHEPs, the largest number of international students are enrolled in For-Profit providers, and the largest percentage of growth was in Not-for-Profit NUHEPs.

Despite their non-University status, many NUHEPs play a vital role in widening participation in university study through the provision of ‘pathways’ to higher education. These pathways provide opportunities for students who may not have achieved the necessary qualifications or had the appropriate academic preparation for direct entry to a bachelor program in a university. Of the 166 registered NUHEPs in 2016, fourteen were ‘pathway’ colleges linked to Australian universities.

Evidence provided to the Kemp and Norton (2014) *Review of the Demand Driven Funding System*¹ demonstrated that:

higher education providers are actively working to identify and better support less adequately prepared students; ...the support offered by specialised sub-bachelor pathway colleges is effective... (Kemp & Norton 2014, p. 5)

Furthermore, evidence provided by a number of NUHEPs to the Kemp and Norton Review suggested that students who had entered a degree program via a NUHEP pathway course not only exceeded expectations based on their original level of academic preparation, but often achieved comparable outcomes with their direct-entry peers in terms of academic results and retention. Another advantage of NUHEP pathway courses is the opportunity for students who decide not to proceed to a bachelor degree to achieve an exit qualification such as a diploma. Kemp and Norton (2014) concluded that two types of non-university providers (pathway colleges and TAFEs) ‘are well-designed for providing the right kind of educational support

¹ The Commonwealth Government policy which provided funding for every domestic student admitted to bachelor degrees in Australian public universities, virtually without restriction from 2012-2017.

for students...entering the higher education system' (2014, p. 54). This 'educational support' is particularly evident in the more personalised nature of pathway NUHEPs, including smaller classes, longer teaching periods, teaching focussed staff and an emphasis on pastoral care for vulnerable students. Most NUHEPs focus completely on teaching and they are specialised in comparison to universities (Norton 2018). In 2016, business-related courses were the most common in the NUHEP sector.

Despite this positive assessment, the for-profit nature of many NUHEPs (as opposed to institutions that operate on government subsidised places) has at times positioned them to be in competition with universities, and the quality of some NUHEP programs has been questioned (Community Colleges Australia 2017). Changes to government assistance for domestic NUHEP students in 2003 and the introduction of the student loan system VET FEE-HELP in 2009 led to a significant expansion of the sector, in terms of the number of providers. With this rapid expansion came concerns about fraudulent practices and abuses of VET FEE-HELP, which ultimately led to the demise of that loan system and the introduction of the much more tightly regulated VET Student Loans program in 2017 (Community Colleges 2017). Nonetheless, there have been ongoing concerns about the challenges of maintaining academic standards in NUHEPs (Community Colleges Australia 2017). Since 2012 NUHEPs have been assessed by the Tertiary Education Quality and Standards Agency (TEQSA) according to the same *Higher Education Standards Framework (Threshold Standards)* as universities, as part of TEQSA's remit for 'protecting and promoting the interests of higher education students and the reputation of the higher education sector' (TEQSA 2017c).

Of particular concern to TEQSA – and to many higher education regulators internationally – is the issue of contract cheating. National regulators in a range of contexts have provided advice to both educators and institutions on how to address this threat to

academic integrity (see for example, QAA 2017, 2018; TEQSA 2017b; CHEA 2017). Media scandals regularly expose contract cheating among university students, yet similar scandals have not emerged from NUHEPs, perhaps because of the relatively smaller numbers of students enrolled in NUHEPs versus Universities (see Table 1). Our recent research demonstrated that a student's Language Other than English (LOTE) status makes them especially vulnerable to contract cheating (Bretag & Harper et al 2018b). Given the growing number of international students at NUHEPs, most of whom are LOTE, it might be anticipated that contract cheating would be an issue in that context.

However, despite the size and importance of NUHEPs to the Australian higher education sector and their often critical relationship with universities, no parallel research on contract cheating in NUHEPs has been conducted. This may be because of the diversity and fluctuating nature of the NUHEP sector and the fact that teaching (rather than research) is their primary function. It is therefore timely to investigate the issue of contract cheating in the context of NUHEPs.

Literature review

Although the term 'contract cheating' was first coined over a decade ago (Clarke & Lancaster 2006), the topic has gained significant attention in recent years due to the rise and visibility of commercial academic essay writing services (see Ellis, Zucker & Randall 2018). A range of definitions of contract cheating have been posited in the literature. Drawing on the original definition by Clarke and Lancaster (2006), Rigby et al (2015) considered the term contract cheating to be cheating whereby students order an assignment of a given standard to be delivered in a given period at a fixed price' (2015). However, Walker and Townley (2012) suggest that contract cheating refers to a cluster of practices relating to the outsourcing of students' assessment to third parties, whether or not these entities are commercial providers. According to Ellis, Zucker and Randall (2018) 'Contract cheating occurs when a student

procures a third party (who knows about and benefits from the transaction) to produce academic work (that is usually, but not always assessable work) that the student then submits to an educational institution as if it were their own' (2018, p. 1). Lancaster and Clarke have refined their definition, stating that contract cheating occurs 'where a student is requesting an original bespoke piece of work to be created for them' (2016, p. 639). Newton (2018) states that contract cheating is 'where students recruit a third party to undertake their assignments', and Harper and Bretag et al (2018) maintain that 'contract cheating occurs when a student submits work that has been completed for them by a third party, irrespective of the third party's relationship with the student, and whether they are paid or unpaid' (p. 1). For the purpose of this study, we use the Harper and Bretag et al (2018) definition, on the basis that the issue at stake is whether students have engaged with and fulfilled the learning objectives of an assignment, not whether the provider of such an assignment receives a benefit, financial or otherwise.

In response to a number of scandals across the globe about the perceived rise of contract cheating (Newton 2018), there has been an increase in research and scholarship on the topic in recent years. Researchers have sought to determine the prevalence of contract cheating (Bretag & Harper et al 2018b; Curtis & Clare 2017; Foltýnek & Králíková 2018), with general agreement that a relatively small percentage of students engage in the practice. Bretag and Harper et al (2018b) reported that 5.8% of university students engage in one or more of the five cheating behaviours investigated, but a relatively high proportion of students engage in 'sharing' behaviours – 15% reported buying, selling or trading notes, and 27% reported providing a completed assignment to others. Curtis and Clare's (2017) analysis of previous studies indicated that 3.5% of students outsource their work to third parties, in comparison to research in specific cultural contexts (and based on a range of research methodologies), where the behaviour has been reported to occur at higher rates. For example,

Foltýnek and Králíková (2018) found that 7% of the Czech students in their survey reported contract cheating, Ereğ and Ok (2014) stated that 18.9% of the Turkish students in their study had paid someone else to do their assignment, and Abukari (2016) reported that 45.8% of the students in their Ghana research had paid another person to complete an assignment for them.

Other researchers have used experiments in authentic teaching situations to explore the challenges of detecting contract cheating (Dawson & Sutherland-Smith 2018a, 2018b; Lines 2016), concluding that it *is* often possible to detect, particularly when educators are alert to the possibility that it is occurring. Practitioners have provided advice about *how* to detect contract cheating (Rogerson & McCarthy 2017), or described teaching settings where intervention have reduced contract cheating (see for example, Baird and Clare 2017) and a range of practical resources have been available through the Contract Cheating and Assessment Design Project². Harper and Bretag et al (2018) explored the role of the educator, as well as the impact of the broader institutional setting, in minimising, identifying and responding to contract cheating. In response to commonly held views about the importance of ‘authentic’ assessment to prevent contract cheating, some researchers have investigated the relationship between assessment design and contract cheating (Bretag & Harper et al 2018b; Ellis & van Haeringen et al 2019, under review), determining that while assessment design is important for learning, it cannot in itself prevent students from outsourcing their work to third parties.

Bretag and Harper et al (2018b) used multivariate analysis to uncover the key determinants which influence contract cheating behaviour among university students, reporting that Language Other than English status, the perception that there are ‘lots of opportunities to cheat’ and dissatisfaction with the teaching and learning environment, are the underlying issues which need to be addressed. More recent research has sought to understand

² www.cheatingandassessment.edu.au

why students choose *not* to engage in this type of cheating (Rundle et al 2018, unpub). Moving beyond the individual student or educational institution, researchers have begun to investigate the underlying business model of commercial academic writing companies (Ellis, Zucker & Randall 2018), and the marketing strategies used to promote these services (Rowland et al 2018). There has also been some exploration of the potential role of legislation to stop commercial academic writing services from providing assignments to students (Draper & Newton 2017; Draper, Ibezim & Newton 2017).

In this context of global concern about contract cheating in higher education, it is important to understand the extent of contract cheating at NUHEPs and to compare this to existing data about contract cheating at Australian universities (Bretag & Harper et al 2018b; Harper & Bretag et al 2018). In fact, the four NUHEPs involved in this research approached the project team to specifically request participation by their institutions. To our knowledge, the issue of contract cheating at NUHEPs has not been previously studied. This paper therefore seeks to address the following research questions:

1. How prevalent is contract cheating in Australian NUHEPs?
2. Is there a relationship between cheating behaviours and sharing behaviours at NUHEPs?
3. What are the teaching and learning factors associated with contract cheating and other forms of outsourcing at NUHEP?
4. How do the answers to 1-3 (above) compare with responses by university staff and students?

Method

Two surveys with comparable questions were distributed to students and teaching staff at four Australian NUHEPs³ in the period October to December 2016 (see Bretag & Harper et al

³ The full surveys can be accessed at: www.cheatingandassessment.edu.au/surveys/

2018b, and Harper & Bretag et al 2018 for detailed explications of the methodology used in this research). The four NUHEPs were comprised of three ‘pathway’ colleges and one For-Profit, degree-granting NUHEP. These institutions were based in New South Wales, South Australia, Queensland and Victoria.

Both surveys asked participants a range of questions regarding demographics, experiences with, and attitudes towards seven outsourcing behaviours (including both ‘sharing’ and cheating behaviours, as shown in Figure 1), as well as other factors relating to contract cheating. The questions used either nominal or ordinal scales (5 point Likert scales). At the end of each survey an open ended free text question allowed respondents to provide any other information they wished to include⁴.

After ethics approval and piloting of the surveys at the lead institution, and with consent obtained from the four participating NUHEPs, convenience samples were collected between October and December 2016. Both the student and staff surveys were distributed through internal email systems and responses were obtained from 961 students and 91 educators.

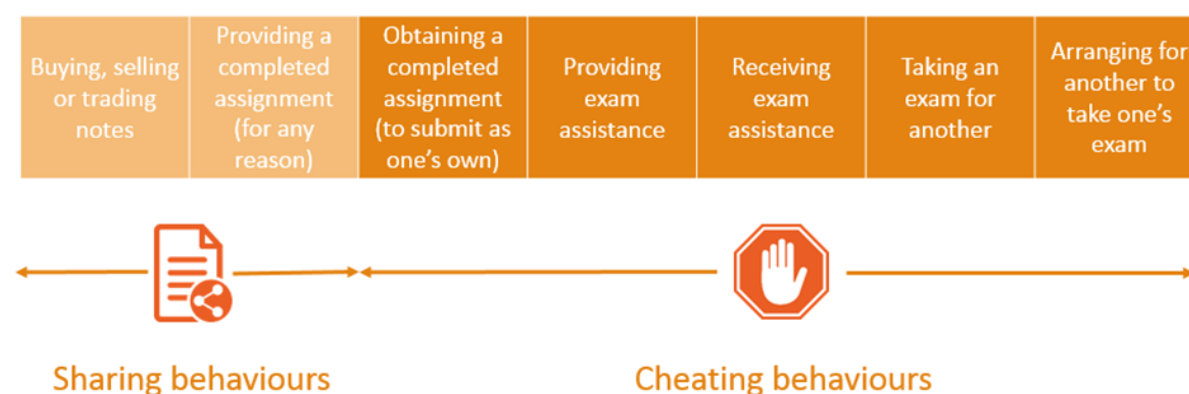


Figure 1: Seven outsourcing behaviours (from Bretag & Harper et al 2018b).

⁴ The qualitative data will be reported in a separate paper.

Findings

Demographics

The student respondents to the survey were most likely to be: aged 17-25 (61.7%), female (59.4%), domestic (62%), native speakers of English (64.4%), full time (65.8%), and based on metropolitan campuses (77.9%). The students were spread across a variety of disciplines, with large proportions in Health Science (29.9%) and Business (18.2%). The students were largely undergraduate (48.5%) or sub-bachelor (29.2%), with 56.8% of students having been enrolled for less than one year. Table 2 compares the demographic composition of respondents to the Australian NUHEP student population. While the student sample was broadly representative of the NUHEP population, international, Business and sub-bachelor students were under-represented, while Health Science students were over-represented.

Table 2: Demographic benchmarking of sample to NUHEP student population

Demographic variable	% of Sample	% of NUHEP Population
Aged 17-25	61.7	-
Female	59.4	56.0
Male	37.0	44.0
Domestic	62.0	55.1
International	34.0	44.9
Native speakers of English	64.4	-
Metro campus	77.9	-
Health Science	29.9	10.6
Business	18.2	31.6
Undergraduate	48.5	26.6
Sub-Bachelor	29.2	61.3
Enrolled less than 1 year	56.8	-
Full-time	65.8	69.4

Note: Comparison data unavailable (-); Sub-bachelor used for comparisons, 'Pathway/Foundation' used in survey. (Population data from Department of Education and Training 2016)

How prevalent is contract cheating in Australian NUHEPs (in comparison to universities)?

Table 3 shows the prevalence of the seven outsourcing behaviours among students at Australian NUHEPs and compares it to the data from students at eight Australian universities (as reported in Bretag & Harper et al 2018b). Students at NUHEPs self-report engaging in ‘sharing’ behaviours significantly *less* than students at universities. ‘Buying, selling or trading notes’ was less commonly reported by the NUHEP students in comparison to the university students (7.9% vs 15.3% of respondents), and NUHEP students were also less likely to provide a completed assignment to other students than their university counterparts (17.2% vs 27.2% of respondents). Using binary logistic regression analyses, university students were found to be 2.12 times more likely to buy, sell or trade notes and 1.81 times more likely to provide an assignment for any reason than NUHEP students, with both results statistically significant at an alpha of 0.001.

Table 3: Prevalence of outsourcing behaviours by students: NUHEPs vs Universities

Classification	Behaviour	NUHEPs % engaged (number engaged/total responses)	Universities % engaged (number engaged/total responses)
Sharing	Bought, sold or traded notes	7.9% (n=71/904)	15.3% (n=2,092/13,651)
	Provided assignment (for any reason)	17.2% (n=155/903)	27.2% (n=3,698/13,586)
Cheating	Obtained assignment (to submit)	2.1% (n=19/896)	2.2% (n=301/13,462)
	Provided exam assistance	3.5% (n=31/891)	3.1% (n=415/13,402)
	Received exam assistance	3.2% (n=29/893)	2.4% (n=322/13,414)
	Taken exam for another	0.6% (n=5/895)	0.5% (n=62/13,426)
	Arranged for another to take exam	0.6% (n=5/896)	0.2% (n=33/13,432)

For the five contract cheating behaviours, NUHEP and university students report engagement at very similar levels. The only slight difference was for ‘received exam assistance’ where NUHEP students report higher engagement (3.2% of respondents vs 2.4% for university students), but this was not statistically significant based on a binary logistic regression ($p=.115$). Overall, 6.9% ($n=66$) of NUHEP students had engaged in one or more of the five cheating behaviours. This is comparable to the 5.8% of University students who reported engaging in one or more of the five cheating behaviours (see Bretag & Harper et al 2018b). A binary logistic regression analysis found that NUHEP students who reported engaging in buying, selling or trading notes were 3.73 times more likely than other NUHEP students to engage in one or more of the cheating behaviours ($p<.001$). Additionally, NUHEP students who provided an assignment for any reason were 2.60 times more likely than other NUHEP students to engage in one or more of the cheating behaviours ($p<.001$).

Relationship between sharing and cheating behaviours at NUHEPs (in comparison with universities)

Table 4 shows the frequency and nature of sharing and cheating behaviours at NUHEPs and universities. The prevalence data from Table 2 is included at the top for reference; the top row is the number of students who reported engaging in each behaviour, and the second row shows these numbers as a percentage of those who responded to each question. For example, 19 NUHEP students obtained an assignment to submit as their own, representing 2.1% of the 896 students who responded to that question. The remainder of the table reports on the frequency and nature of outsourcing as a percentage of the number of students who reported engaging in each behaviour. For example, 81.8% of the 19 students who obtained an assignment to submit as their own reported engaging in that behaviour 1-2 times, 9.1% reported 3-5 times, and 9.1% reported 10+ times.

Student responses to the Frequency question for each behaviour should total 100% (e.g. $81.8+9.1+9.1=100\%$); any instance where it does not will be a consequence of rounding to 1 decimal place. For the Provider/Receiver questions, students were invited to select all that applied, as they may have engaged in the behaviour more than once with different providers or receivers. The percentages shown therefore do *not* total 100%. For example, five NUHEP students arranged for another to take an exam. Of those, 100% reported using a professional service and 60% had a family member or friend do the exam for them. This means that all five students have used a professional service, and three of the five have also relied upon a family member or friend.

Table 4: Frequency of outsourcing by students: NUHEP students vs University students

Survey items	Bought, sold or traded notes %		Provided assignment (for any reason) %		Obtained assignment (to submit) %		Provided exam assistance %		Received assistance %
	NUHEPs n = 71	Unis n = 2092	NUHEPs n = 155	Unis n = 3698	NUHEPs n = 19	Unis n = 301	NUHEPs n = 31	Unis n = 415	NUHEPs n = 29
Students who reported engaging in behaviour*									
% of students who reported engaging in behaviour	7.9	15.3	17.2	27.2	2.1	2.2	3.5	3.1	3.2
Frequency									
1-2 times	68.6	41.5	62.1	51.1	81.8	97.8	58.1	58.0	57.1
3-5 times	12.9	32.7	29.4	34.6	9.1	-	19.4	27.4	14.3
6-9 times	10.0	8.8	2.6	6.6	-	2.2	-	8.7	7.1
10+ times	8.6	17.0	5.9	7.7	9.1	-	22.6	5.8	21.4
Provider/ receiver									
Student or former student	60	73.2	67.3	69.6	31.6	60.2	64.5	66.7	57.1
Friend or family member	45.7	51	50.3	67.5	47.4	51.2	71	69.6	82
File-sharing website	34.3	27.6	3.3	2.3	57.9	17.4	-	-	-
Professional service	15.7	7.9	12.5	8.9	47.4	4.1	-	1.5	3.6
Partner or girl/boy friend	17.1	9	13.1	15.4	31.6	9	16.1	6.1	14.3
Money exchanged			6.0	2.2	15.8	12.6	6.5	3.4	-

* Sample size of NUHEPs = 961, Universities = 14,086. Please note: not every student completed every question, so values may not sum to 100%.

The frequency with which students report engaging in the two sharing behaviours are broadly comparable between NUHEPs and universities. With regard to Provider/Receiver, NUHEP students are generally less likely to rely on another student, friend or family member and instead use a file-sharing website or professional service.

In relation to the frequency and nature of the five cheating behaviours, there were relatively few differences between NUHEP students and University students, with some exceptions. NUHEP students were 12 times more likely to report obtaining an assignment from a professional service, but only slightly more likely to report paying money for it (15.8% vs 12.6%). NUHEP students were six times more likely to pay someone to take an exam for them, and nearly twice as likely to receive payment when they provided exam assistance to another student. However, 16.1% of University students reported that they were paid to take an exam for another, while no NUHEP students reported receiving money to do this. It should be noted that the number of students from both NUHEPs and universities reporting engaging in exam impersonation was very low, so these results should be viewed with caution.

Teaching and learning factors associated with contract cheating and other forms of outsourcing at NUHEPs (in comparison with universities)

NUHEP students and University students were also asked for their perceptions of the teaching and learning environment, as shown in Figure 2. Students were asked to report their levels of agreement on a 5 point Likert scale regarding the following 10 items:

1. I have opportunities to approach my lecturers and tutors for assistance when needed
2. My lecturers and tutors ensure that I understand what is required in assignments
3. There are lots of opportunities to cheat in my subjects

4. My lecturers and tutors have explained my institution's academic integrity policy, and the consequences for breaching it
5. My lecturers and tutors spend class time teaching me how to reference (including how to quote, paraphrase and summarise with acknowledgement).
6. My lecturers and tutors spend class time talking about 'contract cheating' and its consequences.
7. My lecturers and tutors spend class time teaching me how to engage in scholarship in my discipline (i.e., research, read, critically analyse and discuss discipline material).
8. My lecturers and tutors consistently monitor and penalise academic integrity breaches in line with my institution's policy.
9. My lecturers and tutors are consistent with each other in grading assignments.
10. I receive sufficient feedback to ensure that I learn from the work I do.

Staff were also asked to rate their own practices on these items⁵ for comparison. Figure 2 shows the responses from both NUHEP and University students, together with responses from staff.

⁵ For example, Item 1 from the student survey was 'I have opportunities to approach my lecturers and tutors for assistance when needed'. In the staff survey this item was 'I provide opportunities for students to approach me for assistance when needed'.

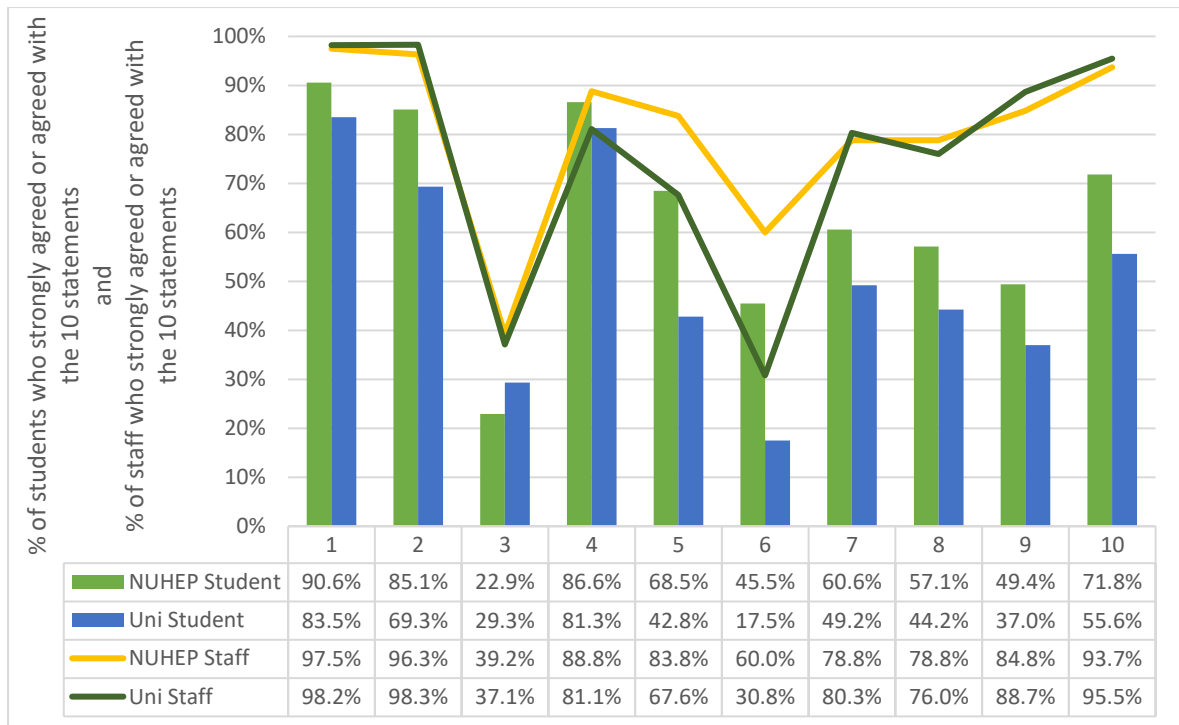


Figure 2: Comparison of NUHEP and university students' experiences and staff implementation of teaching and learning practices.

As shown in Figure 2, NUHEP students reported higher levels of agreement for nine of the 10 teaching and learning items. Responses were categorised into agreement (strongly agree and agree responses) and did not agree (neutral/not sure, disagree and strongly disagree responses). Multiple binary logistic regression analyses were then conducted. Significant differences between the student groups were identified for each behaviour at an alpha of 0.001. The strongest differences between the two groups were for four items. University students were 1.4 times more likely to agree with 'There are lots of opportunities to cheat in my subjects'. NUHEP students were 0.67 times more likely to agree with 'My lecturers and tutors have explained my institution's academic integrity policy, and the consequences for breaching it. NUHEP students were 0.63 times more likely to agree with 'My lecturers and tutors spend class time teaching me how to engage in scholarship in my discipline (i.e., research, read, critically analyse and discuss discipline material'. NUHEP students were 0.60

times more likely to agree with 'My lecturers and tutors are consistent with each other in grading assignments'.

Figure 2 also shows that NUHEP staff and University staff reported comparable levels of agreement on most of the teaching and learning items. The staff data were analysed using the same method as for the student groups detailed above. NUHEP staff reported significantly higher levels of agreement on two items: 'I spend class time teaching students how to reference (including how to quote, paraphrase and summarise with acknowledgement)' ($p=.004$) and 'I spend class time talking about 'contract cheating' and its consequences' ($p<.001$). The item, 'I explain my institution's academic integrity policy to students, and the consequences for breaching it' was not significant ($p=.058$).

Students at both NUHEPs and Universities were presented with a list of 13 assessment tasks and asked to rate on a 5 point Likert scale the likelihood that 'a student would consider getting someone else to complete this kind of assignment for them' (see Bretag & Harper et al 2018a). Teaching staff were presented with the same 13 assessment tasks and asked to rate on a 5 point Likert scale the extent to which they use the assessment tasks in their teaching. The wording of the question differed slightly between the two surveys, with more detailed descriptions of the assessment tasks provided to students. Responses from NUHEP and University students and staff are shown in Figure 3.

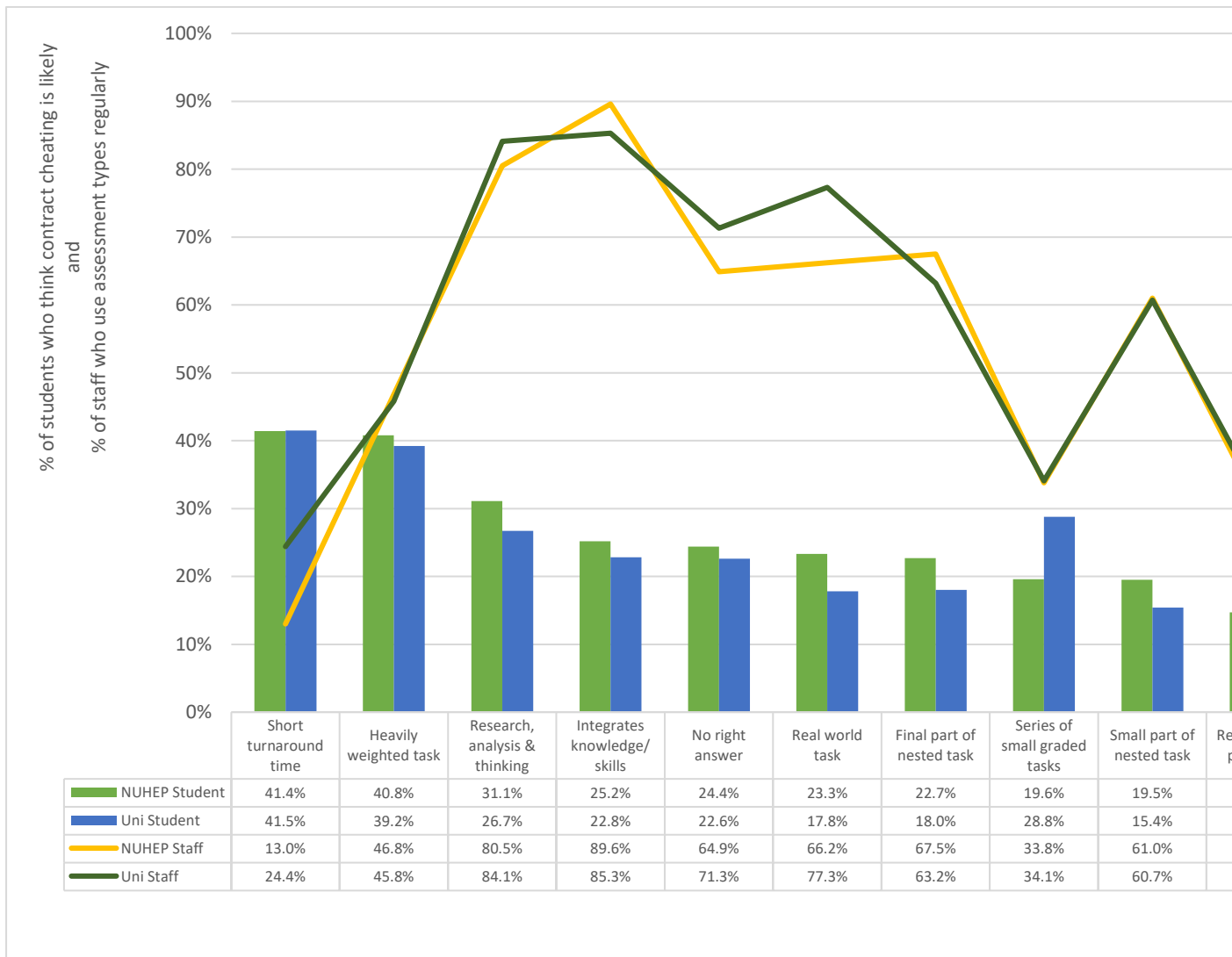


Figure 3. Assessment Tasks - Proportion of NUHEP and University students who perceive that contract cheating is likely and the proportion of educators who use assessment tasks moderately/great deal.

Binary logistic regression analyses were conducted on this data for both the student and staff groups. Responses were combined into how likely (extremely likely/likely) and unlikely (neutral/not sure/unlikely/extremely unlikely) students perceived contract cheating to be for each assessment task. NUHEP students expressed higher agreement for 11/13 assessment tasks, with statistically significant differences ($p < .05$) between the student groups for nine of the assessment tasks. The following items were *not* significantly different: ‘short turnaround time’, ‘heavily weighted tasks’, ‘integrates knowledge/skills’, and ‘no right answer’. As shown in Figure 3, both NUHEP and University students perceived that assignments with a short turnaround time (that is, less than seven days from receipt to submission) are the most likely to be outsourced, and vivas are the least likely. In the case of ‘series of small graded tasks’, 28.8% of University students agreed that outsourcing was likely, while only 19.6% of NUHEP students agreed

Figure 3 also shows how regularly staff reported using the 13 assessment tasks, by combining staff responses into two categories – a great deal/moderately or occasionally/rarely/never. Only two of the assessment types were significantly different ($p < .05$) between the NUHEP and University staff, these were: ‘short turnaround time’ and ‘real world tasks’, with University staff reporting using these assessment types more regularly compared to NUHEP staff.

Discussion

Despite ongoing concerns about the rise of marketing savvy commercial academic writing services (Ellis, Zucker & Randall 2018; Newton 2018), our research has shown that the prevalence of contract cheating at Australian NUHEPs and Universities is relatively low, and comparable at 7% and 6% respectively. Other research on the prevalence of contract cheating has reported similar findings (see Foltýnek & Králíková 2018). For university students, the

main source of cheating ‘assistance’ continues to be other students, friends and family members (see Bretag & Harper et al 2018b). For NUHEP students, however, there is a greater tendency to rely upon commercial services (such as file-sharing websites and professional providers) instead of those in their immediate social circles. NUHEP students reported paying for assignments at 12 times the rate of University students; however, fewer students at NUHEPs reported engaging in sharing behaviours.

As we have suggested elsewhere (see Bretag & Harper et al 2018b), the recent emergence of the ‘sharing economy’ is shaping the day to day experiences of young people, and this may be reflected in University students’ sharing of notes and assignments as part of the learning and assessment process. NUHEP students, however, are less engaged in sharing and this may be for a range of reasons. While University students generally have about three years to complete their first qualification, NUHEP students tend to study at their institution for a much shorter time (particularly in the case of ‘pathway’ colleges where they may only be there for one year or less). This means less time in which to establish the kind of trusted peer networks needed to facilitate sharing. In addition, there is a higher proportion of domestic students at Australian universities, and those domestic students often study at universities in their hometown, coming straight from high school and bringing with them their existing friendship groups. It might therefore be surmised that Australian University students have more social capital and stronger networks than NUHEP students with whom they can collaborate, share, or collude.

NUHEP students’ patterns of sharing and cheating may also be partly explained by cultural and linguistic factors. International students represent 45% of all NUHEP students and 34% of our sample, but only 26.8% of university students (Universities Australia 2018). Moreover, a significant proportion of international students speak a Language Other than

English at Home (LOTE)⁶, and in previous research (Bretag & Harper et al 2018b) LOTE status was found to be a key factor related to contract cheating. So in addition to having limited access to trusted peer networks, as described above, International LOTE NUHEP students are grappling with the same linguistic challenges as their international LOTE university peers, and are without other local, social resources to assist them with their studies. These findings could indicate that NUHEP students may be particularly vulnerable to the persuasive and targeted marketing tactics of commercial academic writing services (see Rowland and Slade 2018).

Our previous research found that university students who engaged in one or more of the five cheating behaviours were twice as likely to engage in sharing (Bretag & Harper et al 2018b). Despite lower rates of sharing at NUHEPs, those NUHEP students who did engage in sharing were more likely than other NUHEP students to engage in cheating behaviours (students who reported buying, selling or trading notes were 3.73 times more likely, and those who provided assignments to others 2.6 times more likely). Rogerson and Basanta (2016) have suggested that ‘The proliferation of essay mills...has unintentionally created a less visible industry in the bartering, trading or sharing of content related to learning and assessment’ (p. 274), an observation which informed our approach to this research. We had hypothesised that sharing behaviours, particularly the use of online file-sharing sites, were a ‘slippery slope’ towards cheating, and the findings from both the NUHEP and University student data provide support for this hypothesis. Based on our own experiences of exploring online file-sharing sites (such as ThinkSwap and Course Hero) it is evident from the numerous pop-up messages which advertise academic writing services that file-sharing sites

⁶ Language Other than English (LOTE) students were 35.6% of our sample; however, their proportion in the NUHEP population is unknown.

can serve as gateways to connect students to contract cheating providers (see also Ellis, Zucker & Randall 2018).

Based on the responses from both NUHEP students and staff it is apparent that NUHEP staff spend more time as part of the teaching and learning process to train NUHEP students on key academic skills such as referencing, and also take the time to discuss contract cheating with their students. As we have reported elsewhere, the general dissatisfaction of cheating students with the teaching and learning environment at universities (Bretag & Harper et al 2018b) and the lack of conversations about contract cheating between students and staff at universities (Harper & Bretag et al 2018) are both issues of concern. The higher levels of satisfaction with the teaching and learning environment expressed by NUHEP students may have been enabled by the smaller classes and extra contact time typical of NUHEPs, particularly 'pathway' NUHEPs. Despite this extra pastoral care and a supportive learning environment, our data indicates that NUHEP students have not been deterred from using professional academic writing services.

Responses to the assessment items from students and staff at both NUHEPs and Universities were comparable. Students at both NUHEPs and Universities agreed that assessments with a 'short turnaround time', 'heavily weighted tasks' and assessments that involved 'research, analysis and thinking skills' were perceived to be more likely to be outsourced while the four least likely to be outsourced were 'reflection on practicum', 'in-class task', assessment that is 'personalised and unique' and vivas. While there was no assessment type at NUHEPs or Universities which students perceived to be immune to outsourcing, the comparability of the responses provides a solid foundation on which to make assessment design decisions which have the potential to minimise contract cheating in higher education (see Bretag & Harper et al 2018a). One anomaly was 'a series of small graded tasks'. While NUHEP and university staff reported the same rate of use of these tasks,

NUHEP students were significantly less likely than university students to perceive that they would be outsourced. It is difficult to surmise why this might be the case, and this finding may provide a useful line of inquiry for future research.

There is an urgent need for staff at both NUHEPs and Universities to engage with the 22 Examples of Good Practice provided by TEQSA to address contract cheating (2017b). In late 2016, when these surveys were conducted, there were few educational resources for academic staff about the role of the teaching and learning environment, and how to detect and respond to contract cheating. As a result of increased concern and ongoing research on contract cheating in the intervening two years, numerous resources are now available for staff (see for example, Dawson & Sutherland-Smith 2018b; www.cheatingandassessment.edu.au).

Limitations

As we have acknowledged previously (Bretag et al 2018b), there are potential limitations of self-reporting of behaviour, particularly in the case of dishonest behaviour. However, like many other surveys, our understandings of student behaviour in this research is limited to what students were prepared to disclose. Another limitation is that the data reported in this paper is based on a convenience sample of four NUHEPs, all of whom approached the project to seek involvement in the research. While the number of responses was low in comparison to the total number of students and staff at Australian NUHEPs, the actual response rate for the four NUHEPs was very high. In the case of one NUHEP, 100% of staff responded to the survey. We do not claim that the data are fully representative of all NUHEPS or of all non-university higher education providers around the world, particularly in light of the diversity of the global higher education sector. However, given the very limited literature on contract cheating behaviours by students at colleges or NUHEPS anywhere in the world, our findings

provide an important insight into this significant and growing sector. We welcome further research on this topic to determine the applicability of our findings in other contexts.

Conclusion

This research examined the issue of contract cheating at four Australian Non-University Higher Education Providers (961 students and 91 staff) by comparing the experiences of their students (n=961) and staff (n=91) with those at Universities (Bretag & Harper et al 2018b; Harper & Bretag et al 2018). We found relatively low and comparable levels of self-reported cheating at both NUHEPs (7%) and Universities (6%). Although NUHEP students reported higher levels of satisfaction with the teaching and learning environment, and NUHEP staff spent more time teaching academic skills such as referencing, and discussing contract cheating, the main difference between the two groups was that NUHEP students were significantly more likely to report using professional services in the outsourcing of their assignments. Both NUHEP and University staff require systematic professional development and training so that they have the resources to develop assessments that are less likely to be outsourced, and to identify and appropriately respond to contract cheating if it occurs. The extensive research on contract cheating which has been conducted in recent years, of which this project is just one example, has provided a solid foundation for teaching and learning initiatives to address contract cheating. With only small differences between NUHEPs and Universities, both types of institutions have the evidence base required for action.

Acknowledgements

The project team wishes to thank the generosity of our colleague Dr Guy Curtis, Murdoch University, for his advice on statistical testing of our data.

This work was funded by the Australian Government Department of Education and Training, Grant SP16-5383.

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