

PLAGIARISM IMPACT RESEARCH PROJECT REPORT

November 2018



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EXECUTIVE SUMMARY

Studiosity is an independent online study support service that partners with universities to provide personal, core academic and study skills help to students online. The aim of this research project was to investigate what impact Studiosity's study support services had on various aspects of students' attitudes and behaviours towards plagiarism. Specifically, the project investigated the impact of academic assistance provided by Studiosity, and students' perspectives on their awareness, knowledge, skills, feelings, attitudes, behaviours and intentions related to plagiarism in their academic work.

Data was collected from a survey of 1077 students who had a Studiosity account auto-created via their university's LMS¹ in one of three countries (Australia, New Zealand or the United Kingdom). The demographic data reveals that respondents were mostly undergraduate students (81.15%), females (74.48%) in their first (58.36%) or second year of study (21.8%). Most were studying on a full-time basis (80.13%) and aged between either 20-29 (36.82%) or 17-19 (29.76%). Respondents identified as performing at above average level, with 62.05% having an average mark of 70 or higher. A total of 86.63% were domestic students with 75.64% studying on campus in a face-to-face capacity with English as their first language (77.34%). Only 8.12% of respondents identified as having a disability. The top 3 fields of study in which 67.14% of respondents were enrolled were: Health, Management and Commerce, and Education. The majority of students were attending university in Australia (71.77%), followed by the United Kingdom (UK) (21.44%) and New Zealand (NZ) (6.8%). Just over eleven percent (11.33%) identified as indigenous or part of an ethnic minority, with most of these students located in the UK.

KEY FINDINGS

STUDENT ATTITUDES TO PLAGIARISM AND CHEATING

One thousand and seventy-seven (1077) student respondents across Australia, NZ and the UK were asked via an online questionnaire to indicate their strength of agreement/disagreement with a series of statements. It was found that students who had a Studiosity account reported a notably high general intolerance to plagiarism and cheating, with most reporting that they viewed plagiarism and cheating as both serious and unacceptable. Differences in attitudes to cheating were explored across English speaking background, gender, part-time and full-time study load, and country. The findings show that:

- Responses varied considerably between students whose first language was not English and those whose first language was English. Students whose first language was not English showed a higher tolerance to plagiarism and cheating in six of the eight statements relating to attitudes towards plagiarism and cheating. Forty percent of students whose first language was not English thought that 'too much of a fuss of people cheating is made at uni' compared to 11.39% of students whose first language was English. Further, 19.12% of students from non-English Speaking Backgrounds agreed, 'It's okay to cheat a little in assignments' compared to 6.59% of those from English speaking backgrounds.
- A gender difference was evident in responses in that male respondents did not view plagiarising and cheating to be as problematic as female respondents did. While 25.91% of males did not worry about others plagiarising, only 15.81% of females did not worry about this. Similarly, 24.47% of males thought too much of a fuss was made of cheating, while only 15.41% of female respondents thought the same.

¹ Students access Studiosity through their institution's Learning Management System (LMS). A student account is created when students click through to Studiosity via their LMS. They may or may not use the service straight away.

- Comparisons between part-time and full-time student responses indicate that these cohorts had similar views on plagiarism and cheating and all shared a generally high intolerance towards these behaviours. In just three of eight statements were there minor differences (<6%), where part-time students showed a slightly higher tolerance to plagiarism and cheating than their full-time counterparts.
- When comparing the responses of students based in the UK or Australia and New Zealand (ANZ, combined), there was less than 2% difference between responses to most statements. One major difference was where 25% of UK students indicated that they agreed that they 'don't get too worried about people using other people's ideas in their assignments and not attributing them', where only 17% of the ANZ students agreed with this statement.

IMPACT OF STUDIOSTY ON STUDENT PLAGIARISM AND CHEATING

From the 1077 students who held a Studiosity account and responded to the survey, 812 of these students indicated they had actually used the Studiosity service. From these 812 students, 771 responded to the section relating to 'Impact of Studiosity on Student Plagiarism and Cheating'. The findings detailed in this summary are drawn from these 771 respondents. It is from the scope of Studiosity users that the project sought to explore impact of the service on student plagiarism. These findings suggest that the service positively impacted students in the seven key aspects of plagiarism:

1. **Feelings.** Students reported that their feelings about and towards plagiarism were influenced by using the Studiosity service. Notably, 72.76% of students agreed that they felt clearer about plagiarism after using the service, while 79.5% felt more certain and confident in their approach to their written work. A total of 70.95% of students indicated that they felt more confident in their ability to avoid plagiarising after using Studiosity.
2. **Behaviour.** More than three-quarters (76.53%) of students indicated that, after using the Studiosity service, they had checked their university's plagiarism policy. Just under three-quarters (74.58%) were working to ensure they correctly referenced and over two thirds (67.71%) reported they were approaching their written work differently. Just over half of respondents (51.36%) indicated that after using Studiosity support, they had subsequently attended classes run by their universities to learn more about doing their assessments in 'the right way'. Of note, 78.08% of students had recommended Studiosity to their friends.
3. **Attitudes.** Student attitudes towards plagiarism appeared to be positively impacted by use of the Studiosity service. After using the service, 82.75% of students indicated they were more determined to resist pressure to cheat, 73.15% agreed that they now understood the need to take personal responsibility in avoiding plagiarising, and 64.47% agreed they were more determined not to plagiarise.
4. **Skills.** The findings point to a reported impact on student's perceived academic skills and ability to avoid plagiarising. A notable 83.66% of students reported that after using the service their academic skills were improved, they knew more about how to plan out their written work (70.04%), how to correctly cite the work of others (76%), and how to avoid the main forms of plagiarism (67.2%). More than half of respondents (55.25%) indicated they now had writing skills that they did not have previously, and that these skills would help them to avoid plagiarising. Further, 61.22% of respondents pointed to their extended knowledge of referencing and 53.18% indicated that they had gained English language skills that they did not have previously.
5. **Intentions.** After using the Studiosity service, student perceptions were that their intentions to plagiarise had been impacted on in a positive way. Almost three-quarters of respondents (71.86%) indicated that they intended on being more careful with their referencing after using the service, while more than half expressed the intention to find out more about how to avoid

plagiarism (50.97%), about how to correctly cite the work of others (50.33%), and about how to reference correctly (55%).

6. **Awareness.** More than half of students (55.25%) agreed that the Studiosity service had increased their plagiarism-related awareness levels, and 83.66% indicated they had a greater awareness of the academic skills required to avoid plagiarism; aspects of awareness that have been shown to impact on plagiarism prevention behaviours.
7. **Knowledge.** Just under 60 percent of students (58.23%) agreed that after using the Studiosity service, they knew more about how to avoid plagiarism in their written work. A quarter of students (25.03%) also felt that they knew more about referencing than they did before utilising the Studiosity service.

Overall, the study found that most students were highly intolerant to plagiarism and cheating and their use of the Studiosity service had a positive impact on seven key aspects of student plagiarism: feelings, behaviour, attitudes, skills, intentions, awareness and knowledge. The following recommendations have been prepared on the basis of these findings.

RECOMMENDATIONS FOR CONSIDERATION

1. **The rationale for avoiding plagiarism should be made clear to all students.** Those who work and lead in university environments are well versed in the rationales for both avoiding plagiarism and preserving academic integrity. However, not all students similarly understand these rationales and they should have the opportunity to do so.
2. **Further exploration of student perceptions and attitudes towards cheating and plagiarism should be considered.** There remains a clear need to continue exploring student attitudes and perceptions towards plagiarism to determine antecedents, inform the research and improve plagiarism prevention practices. In particular, foci on the language backgrounds, gender and study load of students should be considered.
3. **Students from non-English speaking backgrounds need additional support relating to plagiarism.** Not only do these students require support in academic skills to avoid plagiarising, but also the appropriate frames of reference to understand the cultural differences and expectations relating to plagiarism.
4. **Academic skills and study support services such as those provided by Studiosity should be actively promoted to students.** The positive impact of the online study services offered by Studiosity underscore the importance of such services in efforts to minimise and prevent plagiarism.

INTRODUCTION

Plagiarism is a world-wide challenge faced by higher education providers. Countless cases of plagiarism are detected across the global higher education sector each year (Palmer, Oakley and Pegrum, 2017) and matters have escalated with advances in technology and the emergence of a growing contract cheating industry (Bretag, 2016; Bretag *et al.*, 2018; Harper *et al.*, 2018; McKie, 2018). Student perceptions have been canvassed by researchers around the globe to determine both causal and mitigating factors of plagiarism in higher education. Studies suggest that despite decades of research offering insightful explanations and recommendations about plagiarism prevention, plagiarism and cheating at university persist (Cronan, Mullins and Douglas, 2018; Eaton, Guglielmin and Otoo, 2017).

There are numerous reasons why it is important to minimise and, ideally, eradicate plagiarism and cheating at university. Some of the primary reasons include the need to ensure that students are accurately representing their level of understanding and learning, and the need to preserve the integrity of university education.

Policy and other responses to the issue have historically tended to focus on punitive, rather than on educative, measures (Bell, 2018; Devlin and Gray, 2007; Eaton, Guglielmin and Otoo, 2017). The existing literature details a range of approaches to plagiarism management in higher education institutions around the globe relating to policy (Eaton, Guglielmin and Otoo, 2017), procedures around plagiarism identification (Levine and Pazdernik, 2018) and penalties where plagiarism occurs (Devlin, 2006). Research shows that policy approaches to plagiarism prevention are generally ineffective without appropriate educative approaches (Hu and Sun, 2017). A shift is thus discernible and as well as ensuring appropriate consequences for plagiarists, many universities are beginning to focus more keenly on both anti-plagiarism-related policy and practice, as well as on educative approaches to minimising plagiarism (Adam, Anderson and Spronken-Smith, 2017; Glendinning, 2014). One such educative approach is offered through academic and study skills development and support.

The importance of students being equipped with the necessary academic skills in order to avoid plagiarism cannot be overstated (Adam, Anderson and Spronken-Smith, 2017; Devlin, 2006; Macdonald and Carroll, 2006). Such academic skills—including writing, referencing and paraphrasing—are particularly critical where international students, or students whose previous academic experience wasn't delivered in English, are concerned. Indeed, Adhikari (2017) foregrounds the importance of a multidimensional understanding of the issue in relation to international students; a nuanced approach that factors in the numerous and complex reasons why international students might plagiarise. This study proposes to contribute to this body of research by exploring the impact of online study and academic skills support on students' awareness, knowledge, skills, feelings, attitudes, behaviour and intentions in relation to plagiarism.

Despite the large body of research around plagiarism (Power, 2009), the evidence about 'what works' educationally is inconclusive. This study contributes to that knowledge gap by examining the impact of one such academic and study skills service on students' awareness, knowledge, skills, feelings, attitudes, behaviour and intentions related to plagiarism in their academic work. It aims to understand whether, and if so in what ways, the services provided by Studiosity might be contributing to minimising or preventing student plagiarism.

METHODOLOGICAL APPROACH

The approach aimed to ascertain the perceived impact of one set of services on a number of aspects of plagiarism known to impact on its incidence. James, McInnis and Devlin (2002), among others (Marsh and Campion, 2018), found that some plagiarism is inadvertent and providing instruction in referencing and related skills can reduce incidence of such plagiarism. Devlin and Gray (2006) found that the reasons students reported they plagiarised included that they had a poor understanding of plagiarism, poor time management skills and poor writing skills. The proposed questionnaire (see Appendix A) investigated student perceptions about the perceived impact of having used the Studiosity service on their awareness, knowledge, behaviour, attitude and skills related to avoiding plagiarism. In addition, the questionnaire examined student feelings, including their confidence around knowing how to avoid plagiarism. Finally, the questionnaire also explored students' intentions to plagiarise following use of the service. While intention to act and action are recognised to be entirely separate, it can be argued that intention is an indicator of likelihood to act (see Powell, 2012; Sutherland-Smith, 2005).

DATA COLLECTION

Data collection entailed a large-scale online survey questionnaire (see Appendix A) of 1077 students across 13 universities using the SurveyMonkey tool. The questionnaire included sections on: (1) student demographics; (2) students' general views about plagiarism; and, (3) student perceptions of the impact of having used the Studiosity's service.

Potential participants were approximately 25,000 students enrolled at universities in Australia, New Zealand, and the UK who had accounts with online study support services of the company Studiosity. The universities at which these students study are referred to by Studiosity as 'partner universities'. Partner universities were alerted to the intention for this study to take place, the process to be followed and the timeframe, and invited to consider participating.

Legal agreements between Studiosity and their university partners allows Studiosity to email any student who uses their services. For the purposes of this study, students who had Studiosity accounts in the past 12 months and who were enrolled at partner universities were emailed by Studiosity and invited to consider participating in the study by completing an anonymous online questionnaire. The risk of the social desirability effect was recognised and it was understood that students would be less likely to disclose intention to plagiarise than not. The anonymity and confidentiality of the data collection was viewed as an important way to mitigate this risk and this was emphasised to all students contacted and invited to participate. Each student who completed the online questionnaire was offered an iTunes voucher in appreciation of their time. The value of this was \$AUS 5.00 for participants whose institution was in Australia; \$NZ 5.00 for participants whose institution was in New Zealand and £5.00 for UK students.

DATA MEASUREMENTS

Throughout the questionnaire, a Likert Scale was used for each question in which specific weights were assigned to each answer choice (Strongly Agree=4/ Agree=3/ Disagree=2/ Strongly Disagree=1 / Neither Agree or Disagree=0). As part of the SurveyMonkey data collection tool, rating scales automatically calculated the weighted average for each answer choice.

DATA ANALYSIS

The extant research provided a framework of emergent themes and key issues relating to student plagiarism, and from this research a list of 7 key aspects of plagiarism were derived consisting of: awareness, knowledge, skills, feelings, attitudes, behaviour and intentions. After establishing respondents'

general attitudes to plagiarism, these categories were used to determine student perceptions of the impact of the Studiosity service. The survey questionnaire used for data collection was structured around these 7 categories and also provided the framework for the subsequent analysis of the statistical reports to emerge from the data collection tool. Analysis comprised the tallying of responses to various scales within the questionnaire and the comparison between various sets of responses.

FINDING 1 | GENERAL ATTITUDES TO PLAGIARISM AND CHEATING

This section details the findings relating to respondents' general attitudes to plagiarism and cheating. Prior to reporting these findings, the demographic overview of respondents is provided.

DEMOGRAPHICS OF STUDENTS WITH A STUDIOSTY ACCOUNT

A total of 1077 students responded to the survey. This section details the demographics of these 1077 student who had a registered account with Studiosity.

Q1 Current level of study

A total of 1077 students responded to question 1 regarding their current level of study. Table 1 details the breakdown of undergraduate and postgraduate students, indicating that most students (81.15%) were studying at the undergraduate level.

Table 1: Level of study of participants

Level of study	Percentage/Number of students
Undergraduate	81.15% (874)
Postgraduate	16.71% (180)
Other²	2.14% (23)

Q2 Year level of students

Table 2 details the level of study of participants. Of the 1077 respondents to the survey, 210 did not respond to this question, resulting in a total of 867 responses to this question. The Table shows that of these 867 respondents, most students were either in their first (58.36%) or second (21.80%) year of study.

Table 2: Year level of participants

Level of study	Percentage/Number of students
First Year	58.36% (506)
Second Year	21.80% (189)
Third Year	15.57% (135)
Fourth Year	3.11% (27)
Fifth Year	0.46% (4)
Other	0.69% (6)

Q3 Current enrolment load

A total of 1062 students responded to Question 3 and Table 3 details the enrolment load of participants, revealing the majority of students (80.13%) studied full time, while 19.87% studied part time.

Table 3: Enrolment load of students

Enrolment load	Percentage/Number of students
Part Time	19.87% (211)
Full Time	80.13% (851)

² The 23 students who responded 'Other' to this question responded in the following ways: Tertiary pathway program/bridging course/Foundation studies (11 students); Graduate Certificate (1 student); Graduate Diploma (1 student); Nursing (1 student); Certificate (1 student); Teacher of undergraduate/postgraduate (1 student); Registered nurse converting diploma to degree (1 student); Graduate entry bachelor program (1 student); Undergrad, but already hold postgrad quals (1 student); Just graduated (1 student); Graduate (1 student); None (1 student); No yet (1 student)

Q4 Gender

A total of 1062 students responded to Question 4. In terms of gender, 74.48% were female (791 students), 24.48% male (260 students), 0.19% were transgender (2 students) and 0.85% (9 students) indicated they would prefer not to answer the question.

In the Australian higher education sector, females account for 56.7% of the student population, males account for 43.2% of the student population, and indeterminate/intergender/unspecified students represent 0.1% of the Australian higher education student population (Department of Education and Training, 2017). The study thus had a notably large proportion of female respondents compared to males. This is not uncommon in educational research and may be a result of there being more female than male students in higher education and/or the fact that women are generally more likely to participate in surveys than men (Curtin *et al.*, 2000; Moore and Tarnai, 2002; Singer *et al.*, 2000; Smith, 2007).

Q5 Age of respondents

This question sought to determine the age of respondents and the findings are presented in Table 4 below. The majority of students from the 1062 who responded to this question were between the ages of 20-29 (391 students/36.82%) followed by those aged between 17-19 (316 students/29.76%). This means that 66.58% were aged 29 and under.

Table 4: Age of respondents

Age of respondents*	
16 and under	0
17	22
18	171
19	123
20	85
21	78
22	69
23	24
24	27
25	27
26	30
27	22
28	15
29	14
30-39	176
40-49	118
50-59	53
60-69	3
70-79	2
80-89	1
N/A	2
Total responses	1062

*Categories derived from the Department of Education and Training (2015) data. Sourced from: Table 2.1: All Students by Age Group and Broad Level of Course, Full Year 2015.

Q6 What is your approximate average mark at university so far?

Table 5 provides a breakdown of the average mark of student respondents, indicating those who participated in the survey reported marks that put them above average. A total of 659 students (62.05%) had an average mark of 70 or higher.

Table 5: Average mark at university

APPROXIMATE AVERAGE MARK	PERCENTAGE OF RESPONSES	TOTAL NUMBER OF STUDENTS (FROM 1062 RESPONDENTS)
85+	14.78%	157
70-84	47.27%	502
55-69	26.46%	281
50-54	3.77%	40
Below 50	1.2%	13
No marks yet	6.5%	69

Q7 Are you a domestic/local or international/overseas student?

From the 1062 students who responded to this question, 86.63% of respondents (920 students) were domestic students, while 13.37% were international students (142 students). These figures are slightly higher than the broader Australian higher education statistics in which 74% of students are domestic and international students account for 26% of all students (Department of Education and Training, 2017).

Q7a If international, what is your home country?

A total of 142 students identified as International students. The number of students was widely dispersed across 41 countries³, but the five most common countries of origin were: China (25 students), Malaysia (12 students), India (11 students), Hong Kong (9 students), and Germany (7 students).

Q8 What is your primary mode of study to date? (face to face or online)

Most of the 1059 respondents who responded to this question were on-campus students studying face to face (75.64%/801), while 24.36% (258 students) were studying online.

Q9. Do you have a disability?

Only 8.12% of students identified as having a disability (86 students). The majority of students (89.33%/946) indicated they did not have a disability and 2.55% (27 students) indicated they would prefer not to answer the question.

Q10. Is English your first language?

A total of 1059 students had elected to respond to this question. For 77.34% of these students (819 students), English was their first language. The remaining 22.66% (240 students) indicated that English was not their first language.

³ These 41 countries included: Singapore, Malaysia, England, New Zealand, China, Indonesia, India, Australia, Taiwan, Hong Kong, Brazil, Philippines, Japan, Sri Lanka, Pakistan, Vietnam, Nigeria, Nepal, Malawi, Kenya, Timor-Leste, Sultanate of Oman, Bhutan, Canada, Ghana, Germany, Isle of Man, Spain, Poland, Zimbabwe, Italy, South Korea, North Korea, Myanmar, Denmark, Sweden, Mauritius, Denmark, Sweden, Saudi Arab, the UK and the US.

Q11. In what area of study are you enrolled?

In the Australian higher education sector, most students (22%) are studying in the field of Management and Commerce, followed by Society and Culture (21.9%) and Health (17.9%). The 1059 respondents to this survey question were situated in the following areas of study: Health (43.06%/456 students), Management and Commerce (12.18%, 129 students) and Education (11.90%, 126 students).

Table 6: Area of study

AREA OF STUDY	PERCENTAGE OF RESPONSES	NUMBER OF STUDENTS (FROM 1059 WHO RESPONDED)	% OF STUDENTS IN AREAS OF STUDY IN AUSTRALIAN HE*
Health	43.06%	456	17.9%
Management and Commerce	12.18%	129	22%
Education	11.90%	126	8.6%
Society and Culture	10.29%	109	21.9%
Natural and Physical Sciences	6.23%	66	8.6%
Creative Arts	5.85%	62	7.3%
Engineering and related technologies	3.40%	36	6.2%
Information Technology	3.12%	33	4.9%
Agriculture, Environment and Related Studies	1.61%	17	1.1%
Tourism, Hospitality and Personal Services	1.32%	14	0.3%
Architecture and Building	1.04%	11	2.6%

* Percentages taken from latest Department of Education (2017) statistics. Sourced from: <https://docs.education.gov.au/system/files/doc/other/2017firshalfyearstudentinfographic.pdf>.

Q12. In which country is your university based?

Most of the 1059 students who responded to this question were based at a university in Australia (71.77%), followed by the UK (21.44%) and a smaller percentage in New Zealand (6.8%) as detailed below in Table 8.

Table 7: Country in which university is based

COUNTRY	PERCENTAGE OF RESPONSES	NUMBER OF STUDENTS
Australia	71.77%	760
UK	21.44%	227
New Zealand	6.8%	72

Q13. Do you identify as indigenous or as part of an ethnic minority?

From the 1059 students who responded to this question, a total of 11.33% of students (120) identified as indigenous or part of an ethnic minority, while the remaining 88.67% (939 students) did not. For those who responded yes to this question, the breakdown of minority group they identified with is provided below:

- o **Aboriginal or Torres Strait Islander (Australia)** 14.52% (18 students)
- o **Maori (NZ)** 9.68% (12 students)
- o **Black, Asian and minority ethnic (BAME) (UK)** 57.26% (71 students)
- o **Other** 18.55% (23 students)

DEMOGRAPHIC SUMMARY

Data was collected from a survey of 1077 students who had a registered account with Studiosity at a university based in one of three countries. The demographic data reveals that respondents were mostly undergraduate students (81.15%), females (74.48%) in their first (58.36%) or second year of study (21.8%). Most were studying on a full-time basis (80.13%) and aged between either 20-29 (36.82%) or 17-19 (29.76%). Respondents identified as performing at above average level, with 62.05% having an average mark of 70 or higher. A total of 86.63% were domestic students with 75.64% studying on campus in a face-to-face capacity with English as their first language (77.34%). Only 8.12% of respondents identified as having a disability. The top 3 fields of study in which 67.14% of respondents were enrolled were: Health, Management and Commerce, and Education. The majority of students were attending university in Australia (71.77%), followed by the United Kingdom (UK) (21.44%) and New Zealand (NZ) (6.8%). Just over eleven percent (11.33%) identified as indigenous or part of an ethnic minority, with the majority of these students located in the UK.

GENERAL ATTITUDES TO PLAGIARISM AND CHEATING

Research shows that general attitudes to and perceptions of the ethicality of the practice of plagiarising and cheating play a significant part in instances of student plagiarism (Bennett, 2005). In their extensive study of 1300 freshman students over 2 years, Cronan, Mullins and Douglas (2018) found that student attitudes can significantly influence intentions to plagiarise and to violate academic integrity. Undertaking a comprehensive review of the literature on student attitudes to plagiarism, Szabo, Larkin and Sinclair (2018) maintain that gaining insights into how students view cheating is not only critical to determine plagiarism prevention strategies, but also for helping staff ensure that students develop integrity and become honest citizens. For these reasons, establishing student attitudes and perceptions was considered an important aspect of this study.

From the total 1077 students who had an account with Studiosity and who participated in the survey, 998 students responded to the question relating to their general attitudes towards plagiarism and cheating and these are detailed below.

Table 8: General attitudes to plagiarism and cheating

Attitudes to plagiarism	STRONGLY AGREE	AGREE	Total who AGREE	DISAGREE	STRONGLY DISAGREE	Total who DISAGREE	TOTAL
I think too much of a fuss is made of people cheating at university	3.71% 37	14.13% 141	17.84% 178	45.59% 455	36.57% 365	82.16% 820	998
It is important for people to do all of their own written work at university	62.93% 628	31.86% 318	94.79% 946	4.21% 42	1.00% 10	5.21% 52	998
I believe that paying others to do your uni assignments is wrong	75.95% 758	19.24% 192	95.19% 950	1.40% 14	3.41% 34	4.81% 48	998
I think it's okay to cheat a little bit in assignments at uni	1.90% 19	7.52% 75	9.42% 94	34.67% 346	55.91% 558	90.58% 904	998
It's fine to ask your friends for their assignments to copy	2.00% 20	4.91% 49	6.91% 69	33.27% 332	59.82% 597	93.09% 929	998
I don't get too worried about people using other people's ideas in their assignments and	2.61% 26	15.93% 159	18.54% 185	42.79% 427	38.68% 386	81.47% 813	998

not attributing them							
Everyone should do their own assignments at uni	67.94% 678	28.06% 280	96% 958	3.01% 30	1.00% 10	4.01% 40	998
Correct referencing/citation of the work of others is very important	61.52% 614	34.57% 345	96.09% 959	2.81% 28	1.10% 11	3.91% 39	998

Some researchers (Guo, 2011; McCabe and Trevino, 1996; Hayes and Introna, 2005), have previously found that students often do not think that fabricating references or submitting work done by others is a “serious” academic misconduct and some believe it is acceptable to copy the work of others without proper attribution. Contrary to this research, this current study found that students who had a Studiosity account reported a view that plagiarism and cheating were serious and unacceptable. In terms of their general attitudes towards plagiarism, students demonstrated a high intolerance. This high intolerance was shown in six responses in particular, and the breakdown below is provided in descending order in terms of those showing the highest intolerance.

- 959 students (96.1%) agreed (either AGREE or STRONGLY AGREE) that ‘correct referencing/citation of the work of others is very important’.
- 958 students (95.99%) agreed (either AGREE or STRONGLY AGREE) that ‘everyone should do their own assignments at uni’.
- 950 students (95.19%) agreed (either AGREE or STRONGLY AGREE) that they ‘believe that paying others to do your uni assignments is wrong’.
- 946 students (94.79%) agreed (either AGREE or STRONGLY AGREE) that ‘It is important for people to do all of their own written work at university’.
- 929 students (93.09%) disagreed (either DISAGREE or DISAGREE STRONGLY) that ‘It’s fine to ask your friends for their assignments to copy’.
- 904 students (90.58%) disagreed (either DISAGREE or DISAGREE STRONGLY) that ‘I think it’s okay to cheat a little bit in assignments at uni’.

The two responses that showed slightly lower intolerances were to statements ‘I don’t get too worried about people using other people’s ideas in their assignments and not attributing them’ (with 81.47% disagreeing with this statement) and ‘I think too much of a fuss is made of people cheating at university’ (with 81.26% disagreeing with this statement).

GENDER COMPARISONS

While some view gender as a variable influencing the plagiarism related practices of students in higher education, others have found gender to have limited to no impact on plagiarism practices (Jereb, Perc, Lämmlein, Jerebic, Urh, Podbregar & Šprajc, 2018). When comparing the data between male and female responses in the current study, some differences were identified.

In the 8 statements in Question 21 about general attitudes to plagiarism and cheating, male and female respondents showed very similar attitudes in relation to agreeing or strongly agreeing to the following four statements:

- It is important for people to do all of their own written work at university (Female 95.27%/Male 93.52%)
- I believe that paying others to do your uni assignments is wrong (Female 95.41%/Male 94.33%)
- Everyone should do their own assignments at uni (Female 95.95%/ Male 95.95%)
- Correct referencing/citation of the work of others is very important (Female 96.62%/ Male 94.33%)

In all four of these statements, female respondents showed slightly higher intolerance than males, with higher numbers of female students selecting the strongly agree option for each of the four statements.

However, respondents did differ more notably across gender in relation to the following statements as to whether they agreed or strongly agreed.

Table 9: Variations across gender in general attitudes

	Female	Male	Number of respondents
I think too much of a fuss is made of people cheating at uni	15.41%	24.47%	987
I think it's okay to cheat a little bit in assignments at uni	7.84%	14.57%	987
It's fine to ask your friends for their assignments to copy	5.81%	10.53%	987
I don't get too worried about people using other people's ideas in their assignments and not attributing them	15.81%	25.91%	987

These results indicate that male respondents were more likely to think too much of a fuss was made about cheating at university, to think that it is okay to 'cheat a little', to believe it was fine to ask friends for their assignments to copy, and to *not* worry about people using other people's work without proper attribution. These results support previous research that gender does impact aspects of plagiarism to some extent in that four of the eight statements show males did not view plagiarising and cheating to be as significant as female respondents did.

COMPARISONS ACROSS NON-ENGLISH SPEAKING BACKGROUND

This section provides a comparison of students whose first language is English compared to those whose first language is not English. From the 998 students who responded to the question of their general attitudes, the following table provides the responses. Those marked (A) are students whose first language is English. Those marked (B) are students whose first language is *not* English and for clarity, these students will be referred to as Non-English Speaking Background (NESB) students.

Table 10: Variations in general attitudes based on English speaking background

Attitudes to plagiarism	STRONGLY AGREE	AGREE	Total who AGREE	DISAGREE	STRONGLY DISAGREE	Total who DISAGREE	TOTAL
I think too much of a fuss is made of people cheating at university	2.85%(A) 6.67% (B)	8.54%(A) 33.33%(B)	11.39%(A) 40%(B)	46.83%(A) 41.33%(B)	41.79%(A) 18.67% (B)	88.62%(A) 60%(B)	998
It is important for people to do all of their own written work at university	66.36%(A) 51.11%(B)	29.88%(A) 38.67%(B)	96.24%(A) 89.78%(B)	2.98% (A) 8.44%(B)	0.78%(A) 1.78%(B)	3.76%(A) 10.22(B)	998
I believe that paying others to do your uni assignments is wrong	78.14%(A) 68.44%(B)	17.34%(A) 25.78%(B)	95.48%(A) 94.22%(B)	1.03%(A) 2.67%(B)	3.49%(A) 3.11%(B)	4.52%(A) 5.78%(B)	998
I think it's okay to cheat a little bit in assignments at	1.42%(A) 3.56%(B)	5.17%(A) 15.56%(B)	6.59%(A) 19.12%(B)	33.25%(A) 39.56%(B)	60.16%(A) 41.33%(B)	93.4%(A) 80.89%(B)	998

uni							
It's fine to ask your friends for their assignments to copy	1.68%(A) 3.11%(B)	2.85%(A) 12.00%(B)	4.53%(A) 15.11%(B)	33.25%(A) 33.33%(B)	62.23%(A) 51.56%(B)	95.48%(A) 84.89%(B)	998
I don't get too worried about people using other people's ideas in their assignments and not attributing them	2.33%(A) 3.56%(B)	15.01%(A) 19.11%(B)	17.34%(A) 22.67%(B)	43.73%(A) 39.56%(B)	38.94%(A) 37.78%(B)	82.67%(A) 77.34%(B)	998
Everyone should do their own assignments at uni	71.02%(A) 57.33%(B)	26.00%(A) 35.11%(B)	97.02%(A) 92.44%(B)	2.33%(A) 5.33%(B)	0.65%(A) 2.22%(B)	2.98%(A) 7.55%(B)	998
Correct referencing/citation of the work of others is very important	61.32%(A) 62.22%(B)	34.67%(A) 34.22%(B)	95.99%(A) 96.44%(B)	2.98%(A) 2.22%(B)	1.03%(A) 1.33%(B)	4.01%(A) 3.55%(B)	998

Table 10 shows that responses varied considerably in six of the eight statements relating to student attitudes towards plagiarism and attitudes. Students whose first language was not English showed a much higher tolerance to plagiarism and cheating. Forty percent of NESB students thought that 'too much of a fuss of people cheating is made at uni' compared to 11.39% of students whose first language was English. Further, 19.12% of these students thought that 'It's okay to cheat a little in assignments' compared to 6.59% of those from English speaking backgrounds.

Both groups were closely aligned in their agreement with only two statements (either agreeing or strongly agreeing) with, 'I believe that paying others to do your uni assignments is wrong' and 'Correct referencing/citation of the work of others is very important'.

These findings align with prior research which point to a link between lower levels of English language competence and instances of plagiarism (Bretag, 2007). According to Bretag, 'A number of researchers claim that many instances of so-called plagiarism in student academic writing is the result of poor academic literacy, particularly in the case of students struggling in a second language' (2007, p. 15). Accusations of plagiarism can be frequent and without appropriate institutional support and training and learning about different cultural expectations, students from NESB can struggle to understand the complexities of plagiarism and cheating (Bretag, 2007) (also see Heckler and Forde, 2015).

COMPARISONS BETWEEN PART-TIME AND FULL-TIME STUDY LOAD

For the most part, both part-time and full-time had similar views on plagiarism and cheating and shared a high intolerance. Only in three statements were there minor statistical differences. These three statements were: 1) 'I think it's okay to cheat a little bit in assignments at uni'; 2) 'It's fine to ask your friends for their assignments to copy'; and, 3) 'I don't get too worried about people using other people's ideas in their assignments and not attributing them'. In all three of these statements which showed a minor difference in attitudes (no more than 6%), full-time students showed a slightly higher intolerance to plagiarism and cheating than did the part-time respondents who were slightly more tolerant.

Table 11 details these findings with (A) representing full-time students and (B) representing part-time students.

Table 11: Comparison between part-time and full-time students

Attitudes to plagiarism	STRONGLY AGREE	AGREE	Total who AGREE	DISAGREE	STRONGLY DISAGREE	Total who DISAGREE	TOTAL
I think too much of a fuss is made of people cheating at university	2.07%(A) 4.10%(B)	14.51%(A) 14.04%(B)	16.58%(A) 18.14%(B)	40.41%(A) 46.83%(B)	43.01%(A) 35.03%(B)	83.42%(A) 81.86%(B)	998
It is important for people to do all of their own written work at university	67.36%(A) 61.86%(B)	24.87%(A) 33.54%(B)	92.23%(A) 95.40%(B)	5.18%(A) 3.98%(B)	2.59%(A) 0.62%(B)	7.77%(A) 4.6%(B)	998
I believe that paying others to do your uni assignments is wrong	80.31%(A) 74.91%(B)	14.51%(A) 20.37%(B)	94.82%(A) 95.28%(B)	1.04%(A) 1.49%(B)	4.15%(A) 3.23%(B)	5.19%(A) 4.72%(B)	998
I think it's okay to cheat a little bit in assignments at uni	1.55%(A) 1.99%(B)	3.63%(A) 8.45%(B)	5.18%(A) 10.44%(B)	30.05%(A) 35.78%(B)	64.77%(A) 53.79%(B)	94.82%(A) 89.57%(B)	998
It's fine to ask your friends for their assignments to copy	1.55%(A) 2.11%(B)	2.07%(A) 5.59%(B)	3.62%(A) 7.7%(B)	29.02%(A) 34.29%(B)	67.36%(A) 58.01%(B)	96.38%(A) 92.30%(B)	998
I don't get too worried about people using other people's ideas in their assignments and not attributing them	1.55%(A) 2.86%(B)	12.44%(A) 16.77%(B)	13.99%(A) 19.63%(B)	36.27%(A) 44.35%(B)	49.74%(A) 36.02%(B)	86.01%(A) 80.37%(B)	998
Everyone should do their own assignments at uni	73.58%(A) 66.58%(B)	21.24%(A) 29.69%(B)	94.82%(A) 96.27%(B)	4.15%(A) 2.73%(B)	1.04%(A) 0.99%(B)	5.19%(A) 3.72%(B)	998
Correct referencing/citation of the work of others is very important	65.28%(A) 60.62%(B)	30.57%(A) 35.53%(B)	95.85%(A) 96.15%(B)	2.59%(A) 2.86%(B)	1.55%(A) 0.99%(B)	4.14%(A) 3.85%(B)	998

COMPARISONS ACROSS DIFFERENT COUNTRY (AUSTRALIA, NEW ZEALAND AND THE UK)

Student respondents were based in either Australia (726 students), New Zealand (68 students) and the UK (204 students). The following table shows the comparison of attitudes between those studying in the UK and in Australia and New Zealand combined (ANZ).

Table 12: Comparison of attitudes based on country in which university is based

Attitudes to plagiarism	STRONGLY AGREE	AGREE	Total who AGREE	DISAGREE	STRONGLY DISAGREE	Total who DISAGREE	TOTAL 998 STUDENTS
I think too much of a fuss is made of people cheating at university	10 (UK) 27(ANZ)	30(UK) 111(ANZ)	19.61%(UK) 17.38%(ANZ)	94(UK) 361(ANZ)	70(UK) 295(ANZ)	80.39%(UK) 82.62%(ANZ)	204(UK) 794(ANZ)
It is important for people to do all of their own written work at university	136(UK) 492(ANZ)	55(UK) 263(ANZ)	93.63%(UK) 95.09%(ANZ)	9(UK) 33(ANZ)	4(UK) 6(ANZ)	6.37%(UK) 4.91%(ANZ)	204(UK) 794(ANZ)
I believe that paying others to do your uni assignments is wrong	164(UK) 594(ANZ)	37(UK) 155(ANZ)	98.53%(UK) 94.33%(ANZ)	0(UK) 14(ANZ)	3(UK) 31(ANZ)	1.47%(UK) 5.67%(ANZ)	204(UK) 794(ANZ)
I think it's okay to cheat a little bit in assignments at uni	4(UK) 15(ANZ)	11(UK) 64(ANZ)	7.35%(UK) 9.95%(ANZ)	70(UK) 276(ANZ)	119(UK) 439(ANZ)	92.65%(UK) 90.05%(ANZ)	204(UK) 794(ANZ)

It's fine to ask your friends for their assignments to copy	9(UK) 11(ANZ)	10(UK) 39(ANZ)	9.31%(UK) 6.30%(ANZ)	68(UK) 264(ANZ)	117(UK) 480(ANZ)	90.69%(UK) 93.70%(ANZ)	204(UK) 794(ANZ)
I don't get too worried about people using other people's ideas in their assignments and not attributing them	12(UK) 14(ANZ)	41(UK) 118(ANZ)	25.98%(UK) 16.62%(ANZ)	82(UK) 345(ANZ)	69(UK) 317(ANZ)	74.02%(UK) 83.38%(ANZ)	204(UK) 794(ANZ)
Everyone should do their own assignments at uni	145(UK) 533(ANZ)	49(UK) 231(ANZ)	95.10%(UK) 96.22%(ANZ)	6(UK) 24(ANZ)	4(UK) 6(ANZ)	4.90%(UK) 3.78%(ANZ)	204(UK) 794(ANZ)
Correct referencing/citation of the work of others is very important	133(UK) 481(ANZ)	60(UK) 285(ANZ)	94.61%(UK) 96.47%(ANZ)	8(UK) 20(ANZ)	3(UK) 8(ANZ)	5.39%(UK) 3.53%(ANZ)	204(UK) 794(ANZ)

For 6 of the eight statements in this section, there was less than 2% difference between UK and ANZ students in most responses. Statement 6 showed the greatest difference, with 25% of UK students indicating they 'don't get too worried about people using other people's ideas in their assignments and not attributing them'. In contrast, only 16.62% of the ANZ students responded that they don't worry 'about people using other people's ideas in their assignments and not attributing them'. Another slight difference was found in response to statement 3 with 98.53% of UK students indicating that they believed 'that paying others to do your uni assignments is wrong' while only 94.33% of ANZ indicated they agreed with this statement. Collectively, the results show very little difference in the views of students whose university was based in either the UK or Australia and New Zealand (ANZ).

SUMMARY

One thousand and seventy-seven (1077) student respondents across Australia, NZ and the UK were asked via an online questionnaire to indicate their strength of agreement/disagreement with a series of statements. It was found that students who had a Studiosity account reported a notably high general intolerance to plagiarism and cheating, with most reporting that they viewed plagiarism and cheating as both serious and unacceptable. Differences in attitudes to cheating were explored across English speaking background, gender, part-time and full-time study load, and country. The findings show that:

- Responses varied considerably between students whose first language was not English and those whose first language was English. Students whose first language was not English showed a higher tolerance to plagiarism and cheating in six of the eight statements relating to attitudes towards plagiarism and cheating. Forty percent of students whose first language was not English thought that 'too much of a fuss of people cheating is made at uni' compared to 11.39% of students whose first language was English. Further, 19.12% of students from non-English speaking backgrounds agreed, 'It's okay to cheat a little in assignments' compared to 6.59% of those from English speaking backgrounds.
- A gender difference was evident in responses in that male respondents did not view plagiarising and cheating to be as problematic as female respondents did. While 25.91% of males did not worry about others plagiarising, only 15.81% of females did not worry about this. Similarly, 24.47% of males thought too much of a fuss was made of cheating, while only 15.41% of female respondents thought the same.

- Comparisons between part-time and full-time student responses indicate that these cohorts had similar views on plagiarism and cheating and all shared a generally high intolerance towards these behaviours. In just three of eight statements were there minor differences (<6%), where part-time students showed a slightly higher tolerance to plagiarism and cheating than their full-time counterparts.
- When comparing the responses of students based in the UK or Australia and New Zealand (ANZ, combined), there was less than 2% difference between responses to most statements. One major difference was where 25% of UK students indicated that they agreed that they 'don't get too worried about people using other people's ideas in their assignments and not attributing them', where only 17% of the ANZ students agreed with this statement.

FINDING 2 | IMPACT OF STUDIOSTY SERVICE ON ASPECTS OF STUDENT PLAGIARISM

This section details the findings to emerge in relation to the impact of the Studiosity service on various aspects of student plagiarism. Before these findings are reported, the demographics of “users” of the service and their general attitudes to plagiarism and cheating are presented.

STUDENT DEMOGRAPHICS

This section details the demographics of the 812 respondents who had used the Studiosity service (“users”).

Q1 Current level of study

A total of 812 students responded to question 1 regarding their current level of study. Table 13 details the breakdown of undergraduate and postgraduate students, indicating that the majority of students (81.28%) were studying at the undergraduate level.

Table 13: Level of study of participants (users)

Level of study	Percentage/Number of students
Undergraduate	81.28% (660)
Postgraduate	16.75% (136)
Other ⁴	1.97% (16)

Q2 Year level of students

Table 14 details the level of study of participants. Of the 812 respondents to the survey, 152 did not respond to this question, resulting in a total of 660 responses to this question. The Table shows that most students were either in their first (54.24%) or second (23.03%) year of study.

Table 14: Year level of participants (users)

Level of study	Percentage/Number of students
First Year	54.24% (358)
Second Year	23.03% (152)
Third Year	17.73% (117)
Fourth Year	3.79% (25)
Fifth Year	0.30% (2)
Other	0.91% (6)

Q3 Current enrolment load

A total of 812 students responded to Question 3 and Table 15 details the enrolment load of participants, with most being full-time students (82.02%).

Table 15: Enrolment load of students (users)

Enrolment load	Percentage/Number of students
Part Time	17.98% (146)
Full Time	82.02% (666)

⁴ The 16 students who responded ‘Other’ to this question responded in the following ways: Graduate Certificate, Certificate, Master, Headstart student, Bachelor, Uniprep, Highschool/first year uni, Undergraduate (with postgraduate qualifications), Just graduated, Graduate, Tertiary Preparation program, Pathway program, No yet, TPP course, Tertiary pathway, Bridging course.

Q4 Gender

A total of 812 students responded to Question 4. In terms of gender, 76.72% were female (623 students), 22.17% male (180 students), 0.12% were transgender (1 student) and 0.99% (8 students) indicated they would prefer not to answer the question.

Q5 Age of respondents

This question sought to determine the age of respondents and the findings are presented in Table 16 below. The majority of students were between the ages of 20-29 (40.15%).

Table 16: Age of respondents (users)

Age of respondents*	
16 and under	0
17	17
18	118
19	85
20	69
21	67
22	59
23	23
24	20
25	20
26	26
27	20
28	11
29	11
30-39	135
40-49	85
50-59	39
60-69	3
70-79	1
80-89	1
Erroneous responses	2
Total responses	812

*Categories derived from the Department of Education and Training (2015) data. Sourced from: Table 2.1: All Students by Age Group and Broad Level of Course, Full Year 2015.

Q6 What is your approximate average mark at university so far?

Most students (61.82%) had an average mark of 70 or higher. Table 17 provides a breakdown of the average mark of student respondents, indicating those who participated in the survey identified as above average students in terms of their academic skills and ability.

Table 17: Average mark at university (users)

APPROXIMATE AVERAGE MARK	PERCENTAGE OF RESPONSES	TOTAL NUMBER OF STUDENTS (FROM THE 812 RESPONDENTS)
85+	14.41%	117
70-84	47.41%	385
55-69	28.33%	230

50-54	3.45%	28
Below 50	1.35%	11
No marks yet	5.05%	41

Q7 Are you a domestic/local or international/overseas student?

A total of 86.95% of respondents (706 students) were domestic students, while 13.05% were international students (106 students). These figures are slightly higher than the broader Australian higher education statistics in which 74% of students are domestic, and international students account for 26% (DET, 2017).

Q7a If international, what is your home country?

A total of 106 students identified as International students and they derived from 38 different countries from around the globe. The number of students was widely dispersed across these countries, but the most common countries of origin were: China (16 students), Hong Kong (7 students), Germany (7 students), India (7 students), and Malaysia (6 students).

Q8 What is your primary mode of study to date? (face to face or online)

The majority of respondents were on-campus students studying face to face (77.83%/632), while 22.17% (180 students) were studying online.

Q9. Do you have a disability?

Only 8.25% of students identified as having a disability (67 students). The majority of students (89.04%/723) indicated they did not have a disability and 2.71% (22 students) indicated they would prefer not to answer the question.

Q10. Is English your first language?

For 78.33% of students, English was their first language. The remaining 21.67% (176 students) indicated English was not their first language.

Q11. In what area of study are you enrolled?

In the Australian higher education sector, most students (22%) are studying in the field of Management and Commerce, followed by Society and Culture (21.9%) and Health (17.9%) (DET, 2017). The 812 respondents to this survey who had used the Studiosity service were situated in the following areas of study: Health (45.44%), Education (12.93%) and Management and Commerce (11.82%). Table 18 provides a breakdown of the areas of study of respondents and compares the data to that of areas of study of students in Australian higher education more broadly.

Table 18: Area of study (users)

AREA OF STUDY	PERCENTAGE OF RESPONSES	NUMBER OF STUDENTS	% OF STUDENTS IN AREAS OF STUDY IN AUSTRALIAN HE*
Health	45.44%	369	17.9%
Education	12.93%	105	8.6%

Management and Commerce	11.82%	96	22%
Society and Culture	9.73%	79	21.9%
Natural and Physical Sciences	5.91%	48	8.6%
Creative Arts	4.80%	39	7.3%
Engineering and related technologies	2.83%	23	6.2%
Information Technology	2.83%	23	4.9%
Tourism, Hospitality and Personal Services	1.48%	12	0.3%
Architecture and Building	1.11%	9	2.6%
Agriculture, Environment and Related Studies	1.11%	9	1.1%

** Percentages taken from latest Department of Education (2017) statistics. Sourced from: <https://docs.education.gov.au/system/files/doc/other/2017firshalfyearstudentinfographic.pdf>.*

Q12. In which country is your university based?

Most of the students who were users of the Studiosity service were enrolled at a university based in Australia (68.97%), followed by the UK (26.97%) and a smaller percentage in New Zealand (4.06%) as detailed below in Table 19.

Table 19: Country in which university is based (users)

COUNTRY	PERCENTAGE OF RESPONSES	NUMBER OF STUDENTS
Australia	68.97%	560
UK	26.97%	219
New Zealand	4.06%	33

Q13. Do you identify as indigenous or as part of an ethnic minority?

A total of 10.96% of students (89) identified as indigenous or part of an ethnic minority, while the remaining 89.04% (723 students) did not. For those who responded yes to this question, the breakdown of minority group they identified with is provided below:

- o **Aboriginal or Torres Strait Islander (Australia)** 15.22% (14 students)
- o **Maori (NZ)** 3.26% (3 students)
- o **Black, Asian and minority ethnic (BAME) (UK)** 61.96% (57 students)
- o **Other** 19.57% (18 students)

STUDIOSITY USAGE

Q14. Have you used Studiosity service(s)?

812 students of the 1077 total respondents to the survey has used the Studiosity service.

Q15. How many times have you used Studiosity?

The study found that the majority of students (31.73%) had used the Studiosity service once but also that just over 25% had used it more than 4 times. Table 20 provides the breakdown of how many times students had used the service.

Table 20: Times Studiosity service has been used

NUMBER OF TIMES STUDIOSTY SERVICE USED	PERCENTAGE OF STUDENTS	NUMBER OF STUDENTS
1	31.73%	257
2	23.21%	188
3	13.21%	107
4	6.79%	55
MORE THAN 4	25.06%	203

Q15a When did you first use Studiosity?

Most of the sample of respondents (38.64%) had first used the Studiosity service between 3 and 6 months prior to completing the survey, while 26.17% had first used it 1-3 months prior to the survey as detailed in Table 21 below.

Table 21: First use of Studiosity

WHEN STUDIOSTY WAS FIRST USED	PERCENTAGE OF STUDENTS	NUMBER OF STUDENTS
More than 6 months ago	24.07%	195
Between 3 and 6 months ago	38.64%	313
Between 1 and 3 months ago	26.17%	212
Less than one month ago	11.11%	90

Q15b When did you last use Studiosity?

Most students had last used Studiosity in the last 1-3 months. Table 22 provides the data for when students had last used the Studiosity service.

Table 22: Last use of Studiosity

WHEN STUDIOSTY WAS LAST USED	PERCENTAGE OF STUDENTS	NUMBER OF STUDENTS
Only used it once	26.67%	216
More than 6 months ago	2.59%	21
Between 3 and 6 months ago	18.52%	150
Between 1 and 3 months ago	32.96%	267
Less than one month ago	19.26%	156

DEMOGRAPHIC OVERVIEW

The demographic data reveals that respondents were mostly undergraduate students (81.28%), females (76.72%) in their first (54.24%) or second years of study (23.03%). Most were studying on a full-time basis (82.02%) and aged between 20-29 (40.15%). Respondents identified as performing at above average level, with 61.81% having a distinction mark or higher. A total of 86.9% were domestic students with 77.83% studying on campus in a face-to-face capacity with English as their first language (78.33%). Only 8.25% of respondents identified as having a disability. The top 3 fields of study in which 61.8% of respondents were enrolled were: Management and Commerce, Society and Culture, and Health. The majority of students were attending university in Australia (68.97%), followed by the United Kingdom (UK) (26.97%) and New Zealand (NZ) (4.06%). Just under eleven percent (10.96%) identified as indigenous or part of an ethnic minority, with the majority of these students located in the UK.

Most students were found to have used the Studiosity service either once (31.73%) or 4 times (25%). A total of 38.64% had first used the service 3-6 months ago, and 31.96% had last used the service 1-3 months ago.

GENERAL ATTITUDES TO PLAGIARISM AND CHEATING OF STUDIOIOSITY “USERS”

A total of 754 (93%) students elected to complete this section of the survey. Fifty-eight students chose not to respond. The table below details the responses of these 754 students who had used the Studiosity service relating to their general attitudes to plagiarism and cheating.

Table 23: Attitudes to plagiarism and cheating (users)

Attitudes to plagiarism	STRONGLY AGREE	AGREE	Total who AGREE	DISAGREE	STRONGLY DISAGREE	Total who DISAGREE	TOTAL
I think too much of a fuss is made of people cheating at university	4.11% 31	13.93% 105	18.04% 136	46.15% 348	35.81% 270	81.96% 618	754
It is important for people to do all of their own written work at university	64.06% 483	31.03% 234	95.09% 717	3.85% 29	1.06% 8	4.91% 37	754
I believe that paying others to do your uni assignments is wrong	75.07% 566	20.69% 156	95.76% 722	1.06% 8	3.18% 24	4.24% 32	754
I think it's okay to cheat a little bit in assignments at uni	1.99% 15	6.63% 50	8.62% 65	34.08% 257	57.29% 432	91.37% 689	754
It's fine to ask your friends for their assignments to copy	2.25% 17	4.64% 35	6.89% 52	32.89% 248	60.21% 454	93.10% 702	754
I don't get too worried about people using other people's ideas in their assignments and not attributing them	2.92% 22	15.78% 119	18.70% 141	42.57% 321	38.73% 292	81.30% 613	754
Everyone should do their own assignments at uni	68.44% 516	27.59% 208	96.03% 724	3.05% 23	0.93% 7	3.98% 30	754
Correct referencing/citation of the work of others is very important	64.06% 483	32.49% 245	96.55% 728	2.79% 21	0.66% 5	3.45% 26	754

This study found that students who had used the Studiosity service viewed plagiarism and cheating as serious and unacceptable. In terms of their general attitudes towards plagiarism, students demonstrated a high intolerance. This was evidenced by the following statistical data:

- 96.55% of respondents viewed the correct referencing/citation of the work of others as very important
- 96.03% indicated that every student should do their own assignments at university
- 93.10% indicated that it was not okay for friends to copy their assignments
- 91.37% responded that it was not okay to cheat even 'a little bit' in assignments at university
- 95.76% of students indicated it was wrong to pay someone else to complete your assignment
- 95.09% indicated it is important for people to do all of their own written work at university
- 81.96% did not agree that too much of a fuss was made about people cheating at university
- 81.03% responded that they do get worried about people using other people's ideas in their assignments and not attributing them.

IMPACT OF STUDIOSTY ON STUDENTS IN RELATION TO PLAGIARISM

This section details the findings in relation to the perceived impact of the Studiosity service on key aspects of student plagiarism and cheating. From the 812 respondents who identified as users of the service, 771 students responded to this section of the survey and the findings from these students are detailed below.

1. STUDENT AWARENESS OF PLAGIARISM AND BROADER NECESSARY STUDY/LANGUAGE SKILLS

Lack of awareness amongst students has been identified as a key factor in student plagiarism (Guo, 2011; Smith *et al.*, 2007). Researchers suggest that a lack of understanding of what constitutes plagiarism can result in students ignoring instructions (Guo, 2011). This lack of awareness can also result in a failure to comprehend what penalties stem from plagiarising, or how to avoid plagiarism through specific academic skills (for example, referencing) (Smith *et al.*, 2007; Yeo, 2007).

The study shows that more than half of the 771 students (55.25%) who completed this section of the questionnaire agreed (either agree or strongly agree) that after using the Studiosity service their plagiarism awareness levels had increased. Over eighty percent (83.66%) of students reported that the service had increased their academic skills, which have previously been shown to improve student awareness of plagiarism and influence prevention behaviours (Guo, 2011).

Table 24: Awareness of plagiarism/academic skills

Awareness of plagiarism / academic skills	STRONGLY AGREE	AGREE	NEITHER AGREE NOR DISAGREE	DISAGREE	STRONGLY DISAGREE	TOTAL
I have more awareness about plagiarism	18.03% 139	37.22% 287	32.30% 249	9.08% 70	3.37% 26	771
I feel I understand a bit more about how to write academically	25.42% 196	58.24% 449	12.45% 96	2.72% 21	1.17% 9	771

2. KNOWLEDGE OF PLAGIARISM AND ACADEMIC INTEGRITY

Just under 60 percent (58.23%) of the 771 students either agreed or strongly agreed that after using the Studiosity service, they knew more about how to avoid plagiarism in their written work. A quarter of these students (25.03%) also felt that they knew more about referencing than they did before utilising the Studiosity service.

Table 25: Knowledge of plagiarism

Knowledge of plagiarism	STRONGLY AGREE	AGREE	NEITHER AGREE NOR DISAGREE	DISAGREE	STRONGLY DISAGREE	TOTAL
I know more about how to avoid plagiarism in my written work	20.62% 159	37.61% 290	31.91% 246	7.78% 60	2.08% 16	771
I know the same amount about referencing as I did before	16.21% 125	37.35% 288	21.40% 165	22.18% 171	2.85% 22	771

3. SPECIFIC SKILLS IN AVOIDING PLAGIARISM

As previously mentioned in this report, a lack of specific skills in avoiding plagiarism is a significant issue in higher education. A total of 55.25% of the 771 students felt they had developed academic writing skills that they did not have prior to their use of the Studiosity service. Moreover, 61.22% indicated their knowledge

around referencing had improved, and 70.04% responded that they now know more about how to plan out their written work. A further 76% indicated their ability to cite the work of others had improved, 67.19% confirmed they knew more about how to avoid the main forms of plagiarism, and finally, more than half (53.18%) either agreed or strongly agreed that their English language skills, which helped them avoid plagiarising, had improved after using the service.

Table 26: Skills in avoiding plagiarism

Specific skills in avoiding plagiarism	STRONGLY AGREE	AGREE	NEITHER AGREE NOR DISAGREE	DISAGREE	STRONGLY DISAGREE	TOTAL
I have academic writing skills that I did not have previously that will help me avoid plagiarising.	13.23% 102	42.02% 324	32.30% 249	10.12% 78	2.33% 18	771
I know more about how to reference	22.44% 173	38.78% 299	27.37% 211	8.82% 68	2.59% 20	771
I know more about how to plan out my written work	20.36% 157	49.68% 383	21.27% 164	6.87% 53	1.82% 14	771
I know how to correctly cite the work of others in my written work	24.77% 191	51.23% 395	18.16% 140	4.28% 33	1.56% 12	771
I know more about how to avoid the main forms of plagiarism	25.94% 200	41.25% 318	26.59% 205	4.02% 31	2.20% 17	771
I have English language skills that I did not have previously that will help me avoid plagiarising	17.77% 137	35.41% 273	32.17% 248	9.99% 77	4.67% 36	771

4. FEELINGS ABOUT / TOWARDS PLAGIARISM

Table 27 provides the data in relation to respondents’ feelings about and towards plagiarism. The study found that 72.76% of students felt clearer about plagiarism after using the Studiosity service. Indeed, only 9.73% of respondents indicated there were less clear about plagiarism. Most students (79.5%) also felt more certain and confident in their approach to their written work, and confident about their ability to avoid plagiarising (70.95%).

Table 27: Feelings about plagiarism

Feelings about/towards plagiarism	STRONGLY AGREE	AGREE	NEITHER AGREE NOR DISAGREE	DISAGREE	STRONGLY DISAGREE	TOTAL
I am more confused than ever about plagiarism	3.63% 28	6.10% 47	17.51% 135	34.24% 264	38.52% 297	771
I approach my written work for uni with more certainty	28.66% 221	50.84% 392	16.34% 126	2.59% 20	1.56% 12	771
I feel more confident about my ability to avoid plagiarising	27.24% 210	43.71% 337	23.61% 182	3.24% 25	2.20% 17	771

5. ATTITUDES TOWARDS PLAGIARISM AFTER USING STUDIOSTY’S ONLINE STUDY SUPPORT

Students also reported that their attitudes towards plagiarism had been impacted on positively through using the Studiosity service. Of the 771 who responded, a majority of students (82.75%) felt determined to resist pressure to cheat, 64.47% were determined not to plagiarise, and 73.15% felt they now understood the need to take responsibility for avoiding plagiarism.

Table 28: Student attitudes towards plagiarism

Attitudes towards plagiarism	STRONGLY AGREE	AGREE	NEITHER AGREE NOR DISAGREE	DISAGREE	STRONGLY DISAGREE	TOTAL
I am determined to resist the pressure to cheat in assignments	59.66% 460	23.09% 178	14.01% 108	1.30% 10	1.95% 15	771
I am more determined now not to plagiarise	32.43% 250	32.04% 247	28.27% 218	4.67% 36	2.59% 20	771
I now understand that I need to take responsibility for avoiding plagiarism	33.07% 255	40.08% 309	23.09% 178	2.20% 17	1.56% 12	771

6. STUDENT BEHAVIOUR

For the 771 responses to the question on students' own plagiarism related behaviour after using the Studiosity service, the findings indicate a perceived change in behaviour relating to: approaching their written work differently (67.71%), checking their university's plagiarism policy (76.53%), and ensuring they reference and cite the work of others (74.58%). Half of respondents (51.36%) indicated they had subsequently attended classes run by their universities to learn more about doing their assessments in the right way. Of note, 78.08% of students indicated they have recommended Studiosity to their friends.

Table 29: Student behaviour

Behaviour in relation to plagiarism	STRONGLY AGREE	AGREE	NEITHER AGREE NOR DISAGREE	DISAGREE	STRONGLY DISAGREE	TOTAL
I have recommended Studiosity to uni friends to help them understand how to do assignments better	39.43% 304	38.65% 298	15.69% 121	3.50% 27	2.72% 21	771
I have attended classes run by the uni to learn more about doing my assignments the right way	20.75% 160	30.61% 236	19.97% 154	19.07% 147	9.60% 74	771
I now go about my written assignments differently	19.20% 148	48.51% 374	21.92% 169	7.91% 61	2.46% 19	771
I have checked the university's plagiarism policy to make sure I understand what I need to do to avoid plagiarism	36.58% 282	39.95% 308	14.66% 113	6.36% 49	2.46% 19	771
I now take extra care to attribute / reference / cite the ideas of others	30.48% 235	44.10% 340	21.27% 164	2.59% 20	1.56% 12	771

7. STUDENT INTENTIONS

Just over half of the 771 students who responded to the question relating to their intentions to plagiarise, and how this had been impacted on by the Studiosity service (52.01%), indicated their intentions around plagiarism had not changed, 30.35% neither agreed or disagreed with this statement, and 17.64% suggested their intentions had changed. Over half of students indicated that they intended to find out more about: how to avoid plagiarism (50.97%); citing the work of others (50.33%); and referencing (55%). A significant proportion (71.86%) indicated that they intended to be more careful with their referencing after using the Studiosity service. These results indicate that after using the Studiosity service, student perceptions were that their intentions to plagiarise had been impacted on in a positive way.

Table 30: Student intentions

Student intentions	STRONGLY AGREE	AGREE	NEITHER AGREE NOR DISAGREE	DISAGREE	STRONGLY DISAGREE	TOTAL
My intention around whether or not to plagiarise has not changed	27.63% 213	24.38% 188	30.35% 234	11.67% 90	5.97% 46	771
I am going to find out more about how to avoid plagiarism	20.10% 155	30.87% 238	34.11% 263	10.89% 84	4.02% 31	771
I am going to find out more about citing other people's work	14.01% 108	36.32% 280	35.41% 273	10.64% 82	3.63% 28	771
I am going to find out more about referencing	14.79% 114	40.21% 310	29.05% 224	11.54% 89	4.41% 34	771
I intend to be more careful about referencing from here on	27.24% 210	44.62% 344	23.48% 181	2.85% 22	1.82% 14	771

CONCLUSION

DEMOGRAPHIC OVERVIEW

The demographic data reveals that respondents were mostly undergraduate students (81.28%), females (76.72%) in their first (54.24%) or second year of study (23.03%). Most were studying on a full-time basis (81.28%) and aged between 20-29 (40.15%). Respondents identified as performing at above average level, with 61.81% having an average mark of 70 or higher. Most were domestic students (86.9%), studying on campus in a face-to-face capacity (77.83%) with English as their first language (78.33%). Only 8.25% of respondents identified as having a disability. The top 3 fields of study in which 61.8% of respondents were enrolled were: 1) Management and Commerce, 2) Society and Culture, and 3) Health. The majority of students were attending university in Australia (68.97%), followed by the UK (26.97%) and New Zealand (4.06%). Just under eleven percent (10.96%) identified as indigenous or part of an ethnic minority (the majority of these students from the UK).

GENERAL ATTITUDES TO PLAGIARISM AND CHEATING

One thousand and seventy-seven (1077) student respondents across Australia, NZ and the UK were asked via an online questionnaire to indicate their strength of agreement/disagreement with a series of statements. It was found that students who had a Studiosity account reported a notably high general intolerance to plagiarism and cheating, with most reporting that they viewed plagiarism and cheating as both serious and unacceptable. Differences in attitudes to cheating were explored across English speaking background, gender, part-time and full-time study load, and country. The findings show that:

- Responses varied considerably between students whose first language was not English and those whose first language was English. Students whose first language was not English showed a higher tolerance to plagiarism and cheating in six of the eight statements relating to attitudes towards plagiarism and cheating. Forty percent of students whose first language was not English thought that 'too much of a fuss of people cheating is made at uni' compared to 11.39% of students whose first language was English. Further, 19.12% of students from non-English Speaking Backgrounds agreed, 'It's okay to cheat a little in assignments' compared to 6.59% of those from English speaking backgrounds.
- Similar to the findings of previous research, a gender difference was evident in responses in that male respondents did not view plagiarising and cheating to be as problematic as female respondents did. While 25.91% of males did not worry about others plagiarising, only 15.81% of females did not worry about this. Similarly, 24.47% of males thought too much of a fuss was made of cheating, while only 15.41% of female respondents thought the same.
- Comparisons between part-time and full-time student responses indicate that these cohorts had similar views on plagiarism and cheating and all shared a generally high intolerance towards these behaviours. In just three of eight statements were there minor differences (<6%), where part-time students showed a slightly higher tolerance to plagiarism and cheating than their full-time counterparts.
- When comparing the responses of students based in the UK or Australia and New Zealand (ANZ, combined), there was less than 2% difference between responses to most statements. One major difference was where 25% of UK students indicated that they agreed that they 'don't get too worried about people using other people's ideas in their assignments and not attributing them', where only 17% of the ANZ students agreed with this statement.

IMPACT OF THE STUDIOSTY SERVICE ON ASPECTS OF STUDENT PLAGIARISM AND CHEATING

Educative approaches to plagiarism prevention are increasingly being used around the globe in efforts to minimise plagiarism. One such approach is academic and study skills development through online support services such as Studiosity. This study suggests that the academic and study skills support offered by Studiosity are contributing to minimising student plagiarism. The findings indicate that students view the Studiosity service as having a significant impact on particular aspects of plagiarism. This impact related to the 7 key research areas that the study set out to explore, consisting of: 1) student awareness of plagiarism; 2) knowledge of plagiarism and academic integrity; 3) specific skills in avoiding plagiarism; 4) feelings about/towards plagiarism; 5) attitudes towards plagiarism; 6) behaviour in relation to plagiarism; and 7) intentions to plagiarise.

From the 1077 students who held a Studiosity account and responded to the survey, 812 of these students indicated they had actually used the Studiosity service. From these 812 students, 771 responded to the section relating to 'Impact of Studiosity on Student Plagiarism and Cheating'. The findings detailed in this summary are drawn from these 771 respondents. It is from the scope of Studiosity *users* that the project sought to explore impact of the service on student plagiarism. These findings suggest that the service had an impact on the seven key aspects of plagiarism:

- 1. Feelings.** Students reported that their feelings about and towards plagiarism were influenced by using the Studiosity service. Notably, 72.76% of students agreed that they felt clearer about plagiarism after using the service, while 79.5% felt more certain and confident in their approach to their written work. A total of 70.95% of students indicated that they felt more confident in their ability to avoid plagiarising after using Studiosity.
- 2. Behaviour.** More than three-quarters (76.53%) of students indicated that, after using the Studiosity service, they had checked their university's plagiarism policy. Just under three-quarters (74.58%) were working to ensure they correctly referenced and over two thirds (67.71%) reported they were approaching their written work differently. Just over half of respondents (51.36%) indicated that after using Studiosity support, they had subsequently attended classes run by their universities to learn more about doing their assessments in 'the right way'. Of note, 78.08% of students had recommended Studiosity to their friends.
- 3. Attitudes.** Student attitudes towards plagiarism appeared to be positively impacted by use of the Studiosity service. After using the service, 82.75% of students indicated they were more determined to resist pressure to cheat, 73.15% agreed that they now understood the need to take personal responsibility in avoiding plagiarising, and 64.47% agreed they were more determined not to plagiarise.
- 4. Skills.** The findings point to a reported impact on student's perceived academic skills and ability to avoid plagiarising. A notable 83.66% of students reported that after using the service their academic skills were improved, they knew more about how to plan out their written work (70.04%), how to correctly cite the work of others (76%), and how to avoid the main forms of plagiarism (67.2%). More than half of respondents (55.25%) indicated they now had writing skills that they did not have previously, and that these skills would help them to avoid plagiarising. Further, 61.22% of respondents pointed to their extended knowledge of referencing and 53.18% indicated that they had English language skills that they did not have previously.
- 5. Intentions.** After using the Studiosity service, student perceptions were that their intentions to plagiarise had been impacted on in a positive way. Almost three-quarters of respondents (71.86%) indicated that they intended on being more careful with their referencing after using the service, while more than half expressed the intention to find out more about how to avoid plagiarism (50.97%), about how to correctly cite the work of others (50.33%), and about how to reference correctly (55%).

6. **Awareness.** More than half of students (55.25%) agreed that the service had increased their plagiarism related awareness levels, and 83.66% indicated they had a greater awareness of the academic skills required to avoid plagiarism; aspects of awareness that have been shown to impact on plagiarism prevention behaviours.
7. **Knowledge.** Just under 60 percent of students (58.23%) agreed that after using the Studiosity service, they knew more about how to avoid plagiarism in their written work. A quarter of students (25.03%) also felt that they knew more about referencing than they did before utilising the Studiosity service.

IN SUMMARY

These findings suggest that of all seven aspects examined in the study, student **feelings** *about* and *towards* plagiarism were most notably impacted on by the Studiosity service. Students indicated that they felt clearer, more confident and more prepared to avoid plagiarising after using the online study support. Students also reported that their **behaviour** had been influenced by using the service, in that they were more inclined to check their institutional plagiarism policies, attend plagiarism avoidance classes and generally work hard to ensure they were referencing correctly. In terms of **attitudes**, students indicated they were more determined not to cheat or plagiarise and appreciated the need to take further personal responsibility after using the service. The findings also point to an impact on student's perceived academic **skills**, which have previously been identified as critical in lowering instances of plagiarism, after using the service. Students also reported that the Studiosity service influenced their **intentions** to plagiarise, overall **awareness** levels of plagiarism and how to avoid cheating and, to a lesser extent, their **knowledge** of what constitutes plagiarism.

While having an impact on the seven key aspects of plagiarism explored in this study, the results relating to general attitudes did raise some areas of concern. Students from NESB were found to be less likely to view plagiarism as seriously as did those from English speaking backgrounds. This is not a surprising finding given the variations in cultural perceptions of plagiarism that are well detailed in the literature, as well as the fact that English language competence is critical to avoiding plagiarism. This finding points to the possible need for not only academic skills training, but also perhaps targeted training in cultural expectations and conventions for international students in order to provide the necessary frame of reference with which to understand plagiarism in western cultural contexts.

Slight differences were also found between male and female students, and again, this is not a unique finding. Previous studies show that male students can be less likely to view plagiarism as serious an offence than female students (Jereb, Urh, Jerebic and Šprajc, 2018). Qualitative data might have allowed for further analysis of the reasons for this slight disparity across gender lines in this study, however, the reasons for this difference cannot be determined or speculated upon from the quantitative findings from this study. The findings arguably point to the need for further exploration of training in academic integrity and ethics for male students.

Part-time students also showed slightly lower intolerance to cheating and plagiarism than full-time students. Previous studies show that part-time students are often balancing paid work and are under immense time pressures to finalise assignments, which can result in plagiarising behaviours (Bennett, 2005; Walker, 1998). More recently, however, He *et al.* (2016) found no differences between part-time and full-time students in their perceptions of plagiarism. Much of the research that compares attitudes across study load is dated and future research might explore this question and the factors impacting on part-time and full-time students' attitudes towards cheating and plagiarism.

Overall, the study found that most students were highly intolerant to plagiarism and cheating and their use of the Studiosity service had a positive impact on seven key aspects of student plagiarism: feelings,

behaviour, attitudes, skills, intentions, awareness and knowledge. The following recommendations have been prepared on the basis of these findings.

RECOMMENDATIONS FOR CONSIDERATION

5. **The rationale for avoiding plagiarism should be made clear to all students.** Those who work and lead in university environments are well versed in the rationales for both avoiding plagiarism and preserving academic integrity. However, not all students similarly understand these rationales and they should have the opportunity to do so.
6. **Further exploration of student perceptions and attitudes towards cheating and plagiarism should be considered.** There remains a clear need to continue exploring student attitudes and perceptions towards plagiarism to determine antecedents, inform the research and improve plagiarism prevention practices. In particular, foci on the language backgrounds, gender and study load of students should be considered.
7. **Students from non-English speaking backgrounds need additional support relating to plagiarism.** Not only do these students require support in academic skills to avoid plagiarising, but also the appropriate frames of reference to understand the cultural differences and expectations relating to plagiarism.
8. **Academic skills and study support services such as those provided by Studiosity should be actively promoted to students.** The positive impact of the online study services offered by Studiosity underscore the importance of such services in efforts to minimise and prevent plagiarism.

LIMITATIONS

This study entailed the canvassing of student attitudes to plagiarism after utilising the Studiosity service. To more effectively determine and measure the impact of Studiosity on plagiarism, students ideally would have been issued the same questionnaire both *before* the service and *after* using the service. The timing of the study did not allow this but future studies may be able to incorporate such a design.

REFERENCE LIST

- Adam, L., Anderson, V., & Spronken-Smith, R. (2017). 'It's not fair': policy discourses and students' understandings of plagiarism in a New Zealand university. *Higher Education*, 74(1), 17-32.
- Adhikari, S. (2018). Beyond Culture: Helping International Students Avoid Plagiarism. *Journal of International Students*, 8(1), 375-388.
- Australian Bureau of Statistics (2017). 'Education: 4125.0 - Gender Indicators, Australia Sep 2017'. Available at: <http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/by%20Subject/4125.0~Sep%202017~Main%20Features~Education~5>.
- Bell, S. (2018). Addressing student plagiarism from the library learning commons. *Information and Learning Science*, 119(3/4), 203-214.
- Bennett, R. (2005). Factors associated with student plagiarism in a post-1992 university. *Assessment & Evaluation in Higher Education*, 30(2), 137-162.
- Bretag, T. (2007). The emperor's new clothes: Yes, there is a link between English language competence and academic standards. *People and Place*, 15(1), 13.
- Bretag, T., Harper, R., Burton, M., Ellis, C., Newton, P., Rozenberg, P., ... & van Haeringen, K. (2018). Contract cheating: a survey of Australian university students. *Studies in Higher Education*, 1-20.
- Cronan, T. P., Mullins, J. K., & Douglas, D. E. (2018). Further understanding factors that explain freshman business students' academic integrity intention and behavior: Plagiarism and sharing homework. *Journal of Business Ethics*, 147(1), 197-220.
- Curtin, R., Presser, S., & Singer, E. (2000). The effects of response rate changes on the index of consumer sentiment. *Public Opinion Quarterly* 64: 413-428.
- Department of Education and Training (DET) (2017). '2017 First Half Year Higher Education Statistics', Selected Higher Education Statistics – 2017 Student data. Available at: <https://www.education.gov.au/selected-higher-education-statistics-2017-student-data>.
- Devlin, M. (2006). Policy, preparation, and prevention: Proactive minimization of student plagiarism. *Journal of Higher Education Policy and Management*, 28(1), 45-58.
- Devlin, M., & Gray, K. (2007). In their own words: A qualitative study of the reasons Australian university students plagiarize. *High Education Research & Development*, 26(2), 181-198.
- Eaton, S. E., Guglielmin, M., & Otoo, B. (2017). 'Plagiarism: Moving from punitive to pro-active approaches.' *IDEAS Conference 2017 Leading Educational Change*, May 4 - 5, 2017 Calgary, Alberta. Available at: [https://prism.ucalgary.ca/bitstream/handle/1880/52099/Eaton,%20Guglielmin%20&%20Otoo%20-%20Edited%20IDEAS%202017%20Proceedings%20June%2014-1\[1\].pdf?sequence=1](https://prism.ucalgary.ca/bitstream/handle/1880/52099/Eaton,%20Guglielmin%20&%20Otoo%20-%20Edited%20IDEAS%202017%20Proceedings%20June%2014-1[1].pdf?sequence=1).
- Glendinning, I. (2014). Responses to student plagiarism in higher education across Europe. *International Journal for Educational Integrity*, 10(1).
- Guo, X. (2011). Understanding student plagiarism: An empirical study in accounting education. *Accounting Education: An International Journal*, 20(1), 17-37.
- Harper, R., Bretag, T., Ellis, C., Newton, P., Rozenberg, P., Saddiqui, S., & van Haeringen, K. (2018). Contract cheating: a survey of Australian university staff. *Studies in Higher Education*, 1-17.

- Hayes, N., & Introna, L. D. (2005). Cultural values, plagiarism, and fairness: When plagiarism gets in the way of learning. *Ethics & Behavior*, 15(3), 213-231.
- He, F., Liu, M., Yang, D., Li, M., & Doss, D. A. (2016). Necessary evil: Assessing full-time vs. part-time student perceptions of plagiarism. In Allied Academies International Conference. Academy of Organizational Culture, Communications and Conflict. Proceedings (Vol. 21, No. 1, p. 23). Jordan Whitney Enterprises, Inc.
- Heckler, N. C., & Forde, D. R. (2015). The role of cultural values in plagiarism in higher education. *Journal of Academic Ethics*, 13(1), 61-75.
- Hu, G., & Sun, X. (2017). Institutional policies on plagiarism: the case of eight Chinese universities of foreign languages/international studies. *System*, 66, 56-68.
- James, R., McInnis, C., & Devlin, M. (2002). Assessing learning in Australian universities: Ideas, strategies and resources for quality in student assessment. Australian, Universities Teaching Committee.
- Jereb, E., Urh, M., Jerebic, J., & Šprajc, P. (2017). Gender differences and the awareness of plagiarism in higher education. *Social Psychology of Education*, 1-18.
- Jereb, E., Perc, M., Lämmlein, B., Jerebic, J., Urh, M., Podbregar, I., & Šprajc, P. (2018). Factors influencing plagiarism in higher education: A comparison of German and Slovene students. *PloS one*, 13(8), e0202252.
- Levine, J., & Pazdernik, V. (2018). Evaluation of a four-prong anti-plagiarism program and the incidence of plagiarism: a five-year retrospective study. *Assessment & Evaluation in Higher Education*, 1-12.
- Marsh, J. D., & Campion, J. (2018). Academic integrity and referencing: Whose responsibility is it? *Journal of Academic Language and Learning*, 12(1), A213-A226.
- McCabe, D. L., & Trevino, L. K. (1996). What we know about cheating in college longitudinal trends and recent developments. *Change: The Magazine of Higher Learning*, 28(1), 28-33.
- McKie, A. (2018). 'Can universities beat contract cheating?', *Times Higher Education*, September 13, Available at: <http://www.timeshighereducation.com/features/can-universities-beat-contract-cheating>.
- Moore, D. L., & Tarnai, J. (2002). Evaluating nonresponse error in mail surveys. In: Groves, R. M., Dillman, D. A., Eltinge, J. L., and Little, R. J. A. (eds.), *Survey Nonresponse*, John Wiley & Sons, New York, pp. 197–211.
- Palmer, A., Oakley, G., & Pegrum, M. (2017). A culture of sharing: transnational higher education students' views on plagiarism in the digital era. *International Journal of Management in Education*, 11(4), 381-404.
- Powell, L. (2012, July). Understanding plagiarism: developing a model of plagiarising behaviour. In 5th International Plagiarism Conference. Newcastle, 16th-18th July.
- Power, L. G. (2009). University students' perceptions of plagiarism. *The Journal of Higher Education*, 80(6), 643-662.
- Singer, E., van Hoewyk, J., & Maher, M. P. (2000). Experiments with incentives in telephone surveys. *Public Opinion Quarterly* 64: 171–188.
- Smith, M., Ghazali, N. and Minhad, F. S. N. (2007) Attitudes towards plagiarism among undergraduate accounting students: Malaysian evidence, *Asian Review of Accounting*, 15(2), pp. 122–146.

Sutherland-Smith, W. (2005). Pandora's box: Academic perceptions of student plagiarism in writing. *Journal of English for Academic Purposes*, 4(1), 83-95.

Szabo, S., Larkin, C., & Sinclair, B. (2018). Examining the Academic Integrity of Current Graduate-Level Education Students. *Delta Kappa Gamma Bulletin*, 84(5), 26-36.

Walker, J. (1998). Student plagiarism in universities: What are we doing about it?. *Higher Education Research & Development*, 17(1), 89-106.

Yeo, S. (2007) First year science and engineering students' understanding of plagiarism, *Higher Education Research and Development*, 26(2), pp. 199–216.

APPENDICES

APPENDIX A | SURVEY QUESTIONNAIRE

A. Demographics

Please answer each question below by selecting the option for each that best describes you.

1. What is your current level of study (Undergrad/postgrad)
 - If u/g, what is your year level? (forced choice/menu: 1/2/3/4)
2. What is your current enrolment load? (p/t or f/t)
3. What is your gender? (forced choice/menu M/F/X/none)
4. What is your age in years at 30 June, 2018?
5. What is your approximate average mark at university so far? (forced choice/menu: 85+/70-84/55-69/50-54/below 50/no marks yet)
6. Are you a domestic/local or international/overseas student? (Domestic/International)
 - If international, what is your home country? [need drop down menu]
7. What is your primary mode of study to date? (f2f or online)
8. Do you have a disability? (forced choice/menu: y/n/prefer not to respond)
9. Is English your first language (y/n)
10. In what area of study are you enrolled? (forced choice field of study.
11. In which country is your university based? (forced choice/menu)
 - Australia
 - New Zealand
 - UK
12. Do you identify as indigenous or as part of an ethnic minority? (y/n – if yes, forced choice/menu)
 - Aboriginal or Torres Strait Islander (Australia)
 - Maori (NZ)
 - Black, Asian and minority ethnic (BAME) (UK)
 - Other

B. Studiosity usage

1. Have you used Studiosity service(s)? (y/n) **If no, please go to Section C**
2. How many times have you used Studiosity? (forced choice/menu: 1/2/3/4/more than 4)
 - a. When did you first use Studiosity? (forced choice/menu: More than 6 months ago/between 3 and 6 months ago/between 1 and 3 months ago/Less than one month ago)
 - b. When did you last use Studiosity? (forced choice/menu: Only used once/ More than 6 months ago/between 3 and 6 months ago/between 1 and 3 months ago/Less than one month ago)

C. General attitude to plagiarism/cheating

Please read each statement below carefully and then determine to what extent you agree or disagree with it. For example, if you strongly disagree with the statement 'I think too much of a fuss is made of people cheating at uni', click 'Strongly Disagree'.

		Strongly Agree	Agree	Disagree	Strongly Disagree
1	I think too much of a fuss is made of people cheating at uni				
2	It is important for people to do all of their own written work at uni				
3	I believe that paying others to do your uni assignments is wrong				
4	I think it's OK to cheat a little bit in assignments at uni				
5	It's fine to ask your friends for their assignments to copy				
6	I don't get too worried about people using other people's ideas in their assignments and not attributing them				
7	Everyone should do their own assignments at uni				
8	Correct referencing/citation of the work of others is very important				

[If participant answered N to B1, questionnaire terminates here]

D. Questionnaire (for Studiosity users only)

We are interested in knowing about the impact you believe Studiosity's online study support service has had on you. *Please read the stem 'After using Studiosity's online study support service...' then read each statement carefully. Then determine to what extent you agree or disagree with it. For example, if you strongly agree with the statement 'After using Studiosity's online study support service...I feel I understand a bit more about how to write academically', click 'Strongly Agree'. If you neither agree nor disagree with the statement, click 'Neither Agree Nor Disagree'. If you think any statement is not applicable to you, please click 'Not Applicable'.*

	After using Studiosity's online study support...	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree	Not Applicable
1	I feel I understand a bit more about how to write academically						
2	I know more about how to avoid plagiarism in my written work						
3	I know the same amount about referencing as I did before						
4	I have academic writing skills that I did not have previously that will help me avoid plagiarising						
5	My intention around whether or not to plagiarise has not changed						
6	I am determined to resist the pressure to cheat in assignments						
7	I am going to find out more about how to avoid plagiarism						
8	I know more about how to reference						
9	I am more confused than ever about plagiarism						
10	I have recommended Studiosity to uni friends to help them understand how to do assignments better						
11	I am going to find out more about citing other people's work						
12	I know more about how to plan out my written work						
13	I have more awareness about plagiarism						