

Showcase – Session 1A

Wednesday 28 September





Showcase – Session 1A

Oliver Hannon

Doctoral candidate & Casual Academic, The University of Sydney Business School



Showcase 1

An Integrated Approach to Complexity and Leadership Through Self-reflection and Action

- Corina Raduescu and Andrew Cram











An Integrated Approach to Complexity and Leadership though Self-reflection and Action

Corina Raduescu | Business Information Systems Andrew Cram | Business Co-Design

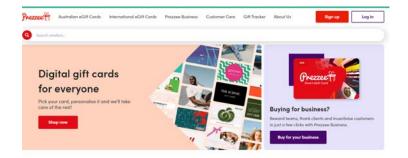




Educational Context

- Master of Commerce Digital Business Capstone
- Prezee Australian high-tech unicorn partner (<u>www.prezzee.com.au</u>)
- Global Experience: Exploring Global Blitzscaling project
 - Expand the business to other countries / markets
 - Unpack the socio-technical ecosystem of the digital business (e.g., localisation, systems architecture, data governance, cultural, legal aspects)
 - Projection of growth and scalability in long term

A real project with strategic focus that requires addressing different layers of complexity

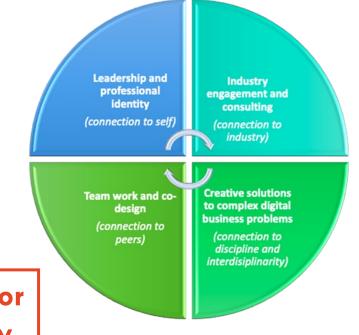


Capstone Aim & Design

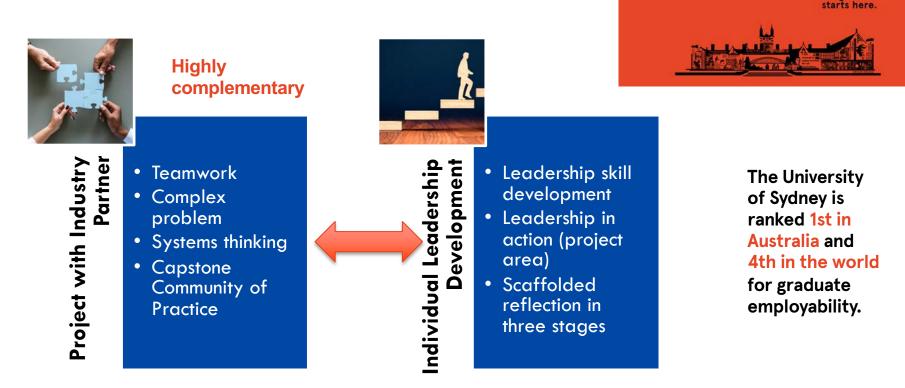
Scaffolded learning and professional development

- Complex problem solving
 - Systems Thinking concepts and mapping tools
 - Concept Map a living document and a guiding framework (integration of knowledge)
 - BIS staff acting as subject matter experts
 - Community of practice
- Industry engagement
- Teamwork
- Leadership

Co-design approach for addressing complexity



Two Parallel Streams

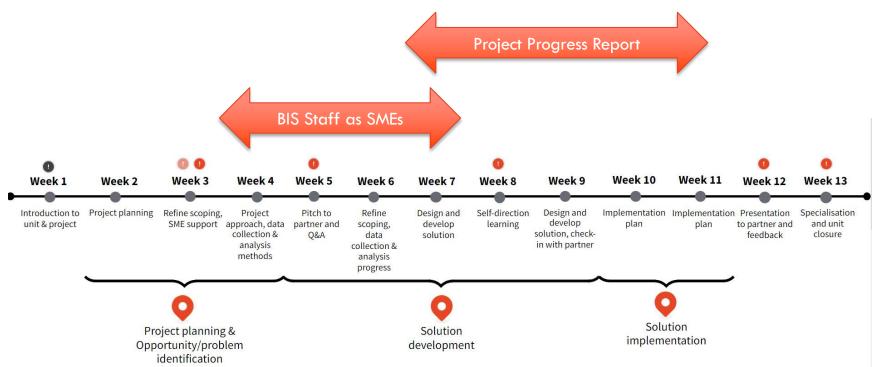


Students' focus on leadership helped them effectively approach the group project, and vice versa the group project gave opportunities to practice and gain confidence in the nominated leadership areas.

The University of Sydney

Ceadership for good

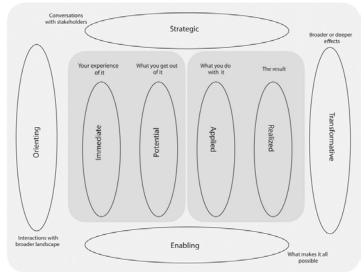
Project Map



Leadership and Professional Development

- Leadership self-assessment 🔿 Weaker leadership skill to focus on
- Scaffolded development in three stages:
 - Personal Goals
 - Mid-sem Reflection
 - Final Reflection

Support students to future-proof their careers!



Value Creation Framework (Wenger et al. 2011)

Value created through social learning within communities of practice (CoP).

Leadership and Professional Development Reflection

1. Personal Goals (5%)

Briefly but concisely address the following questions:

- 1. Present your current *professional identity statement* as determined following the Individual Homework exercise.
- Discuss the *leadership skill* you will focus on and why have you chosen this skill? Why is this skill important to you, your team, and your career?
- Select one project area you will lead (you only refer to one project area, even if you lead more than one area) and discuss why have you chosen this area.
- 4. What do you aim to achieve (goals) by focusing on this leadership skill within your chosen project area?
- 5. Explain how you *plan to develop the leadership skill* throughout your interactions within the capstone CoP and as the leader of the chosen project area/s. Provide examples of your planed engagement in social learning (e.g., utilising relevant literature on the chosen skill, research, sharing/ exchanging information with peers within the CoP, research, learning from others).

2. Mid-sem Reflection (10%)

With regards to your chosen leadership skill goals, address the following questions:

- 1. Describe the specific knowledge and/ or sub-skill(s) related to your chosen leadership skill that you have developed during your work as leader in the project area/s.
 - In answering this question, you must provide your context: state the overall leadership skill and project area/s you lead to have the context, and make sure you link back to your development process from Personal Goals.
 - Example of leadership skill chosen for development: mentoring
 - Examples of knowledge or sub-skills you might develop for mentoring: type of mentoring, phases of mentoring, knowledge from literature on mentorship - lvey GW, Dupré KE. Workplace Mentorship: A Critical Review. Journal of Career Development. 2022;49(3):714-729. doi:10.1177/0894845320957737
- 2. How did you develop the knowledge or sub-skill(s)? (Immediate value)
 - E.g., through your own research, interactions/ discussions with your peers, academics, or the partner within the capstone community of practice.
 - b. Provide evidence of these interactions, when appropriate such as screenshots, messages, quotes in Appendix.
- Discuss how the specific knowledge/ sub-skill(s) has/ye been applied elsewhere and what difference did it/ they make in that situation (Applied value in past).
 - a. Provide examples from published literature.
- 4. What specific value (difference) do you think it/ they would bring to your own professional practice, the teamwork, and the project outcomes in the area/s you lead, and why? (New Potential value)
 - In answering this question, try to provide specific examples associated with your teamwork and project area.

Leadership and Professional Development Reflection

3. Final Reflection (15%)

With regards to your chosen leadership skills goals, project area and the development process you have undertaken, address the following questions.

Before answering the questions state your overall leadership skill, the project area/s you lead and your personal goals to have the context. As you answer, reflect and link back to your goals and development process from the first two reflections.

Support your arguments with specific examples and literature when appropriate.

- With regards to the specific knowledge and/ or sub-skills(s) (part of the chosen leadership skill) you have developed in this project *discussl* explain the following:
 - a. How did the knowledge/ sub-skills you have developed help you understand the cultural norms and values of others in your team? Support your answers with example/s.
 - b. How did the knowledge/ sub-skills you have developed impact your ability to collaborate and communicate with those from different cultures in your team? Support your answers with example/s.
- 2. As a result of your leadership/ professional development, discuss:
 - a. How did it help you integrate and synthesise the different ways of thinking of your team members during the project work? In which ways (better or worse) the application of the new knowledge and/ or skills did change the teamwork and project outcomes (explain what exactly do you think it made the impact and support your argument with example/s)?
 - b. Discuss how did you interact, manage, and adjust your own attitudes and behaviour and those of others in your team to achieve the common goals (e.g., you can refer to negotiation, compromise, conflict resolution and support our answers with example(s)?
- Discuss in which ways your professional identity (PI)/ leadership development during this project experience can make further difference to your overall PI (including leadership), future teamwork and outcomes, influencing other stakeholders, when engaging in future challenges and projects?
 - a. Did you feel you have achieved the personal goals from the beginning? Explain why, or why not?
 - b. Based on your answer to part a) above, consider the future growth and development processes, such as, reframing your strategies, goals, and values – what would you change, do differently, and why?
 - c. As a leader, what would you like to influence/ achieve the most in the future, and why? How would you make that happen?
- 4. To wrap up this reflection, look back at your PI statement from Personal Goals. Incorporate all the learnings from this unit and provide a refined PI statement – this can be used in your LinkedIn profile, CV, and every time when you want to market yourself.

Four graduate qualities

- GQ 6: Cultural competence
- GQ 7: Interdisciplinary effectiveness
- GQ 8: Integrated professional, ethical, and personal identity
- GQ 9: Influence

Questions mapped to GQs elements

Q1	a	Application of leadership knowledge/ sub-skills to understand cultural norms and values based (realised value from value creation framework)	GQ 6
Q2	a	Application of leadership knowledge/ sub-skills to integrate different perspectives and the impact on both teamwork and project outcomes (solution to a complex problem) (realised value)	GQ 7

Student Reflections

"Ultimately my overall attempt to tackle selfconfidence is considered a tremendous achievement. I was more confident in delivering the final pitch over the professional panelists as well as handling the questions perfectly. I couldn't believe how much improvement I have made with the help of peers, and I didn't think I could attain the same experience from other capstone units."





"I feel I met most of my goals and I'm now more confident presenting to executives and answering questions about a project that I'm presenting, because I was knowledgeable about the subject and had more visibility. This gave me the opportunity to directly explain my ideas to Prezzee's executives, and a chance to influence decisions at an executive level. I found the presentation to Prezzee better than expected, because I was well prepared and found the audience receptive."

"In comparison to being an active talker in the past, the critical part of what made the difference lies heavily with analysing and complimenting each other when we brainstorm ideas. As a team we improved by maintaining a positive attitude when we faced a problem. In fact, being an active listener has helped me in bringing everyone together in figuring out the solution to the challenges we face."



"Trust courage changed my attitudes towards my groupmates. In the past, I have often wondered whether others were competent enough to complete their tasks. But in this project, I made up my mind to trust others and to fully follow their lead or assign tasks to others. It turned out that was very good. I also compromised and helped others to improve the overall work and report."



Student Outcomes – USS Scores & Comments

Question	Score (Out of 5)	Agree + Strongly Agree
I developed my capacity to exercise leadership and influence when required	4.9	100%
I developed my capacity to respond constructively to challenge	4.9	100%
I have developed my ability to respond creatively to novel problems	4.7	100%
I developed relevant critical and analytical thinking skills	5.0	100%
The work has been intellectually rewarding	4.75	100%
The assessment tasks challenged me to learn	4.9	100%

* 50% response rate

- "This unit seemed fundamental to me because it created synergies between many backgrounds of the students. I love Corina's methodology."
- "We got experiences from the real-life business really valuable to my future career."
- "Intensive project during the semester, bringing exciting insights and an excellent experience for me."
- "This unit was a very important challenge for me because it helped me to push myself beyond the limits."



Thank you!

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Andrew Cram Andrew.cram@sydney.edu.au

Special acknowledgements:

- Stacey Peterson
- Jane Strachan
- Na Liu

Showcase 2

Detecting and Reducing Academic Misconduct in Programming Assessments













Detecting and Reducing Academic Misconduct in Programming Assessments

Stephen Tierney Priyanka Cheema





Stephen Tierney

Coordinator

Lecturer

Business Analytics, USBS

Priyanka Cheema

Head Tutor

Teaching Fellow and PhD Candidate

School of Physics, Faculty of Science



QBUS5011 Introduction to Programming

- Master of Commerce
- Elective
- No experience required
- Content
 - Foundational programing concepts
 - Programming to solve common business/analysis problems

Semester 1, 2021

Semester 1, 2022

273

Students

4.04

Overall USS

378

Students

4.4

Overall USS

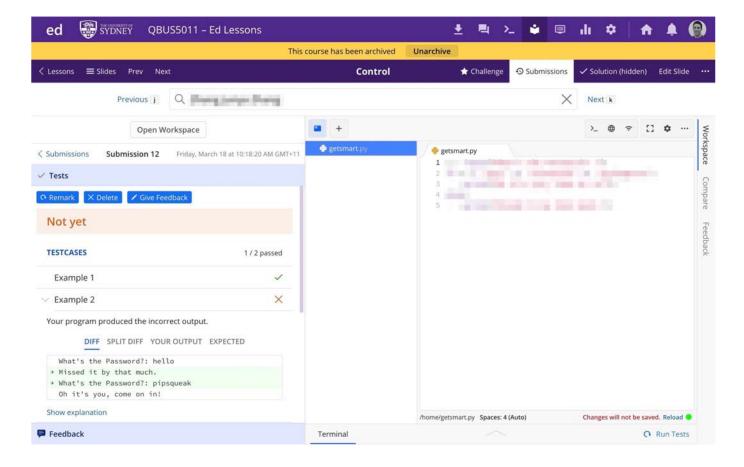
QBUS5011 has been surprisingly popular!

Assessments

- **1.** Fortnightly Homework Programming Exercises
- 2. Mid-Semester Exam
- 3. Final Exam

ed 😨 sydney	i Q	BUS5011 – Ed Lessons		호 릭 노 单	🗉 մե 🌣 🛉 🔶 🛞
		This course has b	een archived Unarchi	ive	
<	Prev I	Next	Control	★ Challenge	ions 🗸 Solution (hidden) Edit Slide 🚥
Homework 1		Description	a +		>_ @ ? [] ¢ …
 Quiz Quiz Welcome! Currency converter Cipher Control Cipher (copy) Cipher (copy2) 	× × × × × ×	Control Write a program that asks the user to enter a passphrase until it matches the requirements. • If the second last letter is the letter "a", the program should say <i>Oh it's you, come on in!</i> and terminate. • Otherwise, it should say <i>Missed it by that</i> much and prompt the user again. Example 1 What's the Password?: pear Oh it's you, come on in! Example 2 What's the Password?: hello Missed it by that much. What's the Password?: pipsqueak Oh it's you, come on in! Example 3 What's the Password?: apple Missed it by that much.	<pre> getsmart.py 1 # Your cod </pre>	le here:	
		What's the Password?: orange Missed it by that much. What's the Password?: pythagoras	/home/getsmart.py 1:17	Spaces: 4 (Auto)	Changes will not be saved. Reload
		Oh it's you, come on in!	Console		Run

An example of the exercise environment.



A student's submission, showing a test case failure.

Homework Misconduct in Semester 1 2021*

273

Students

45

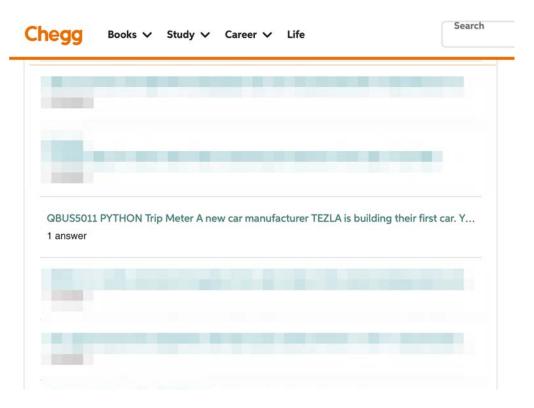
Referred Students

15

Students receiving 0 marks for affected assignments

*This is only for student-to-student cases.

Chegg





Types of Misconduct

- Student to Student (collusion)
- Student to Resource (e.g. Chegg, StackOverflow)
- Student to Provider (contract cheating)

Issues in QBUS5011

- 1. Students can plausibly arrive at the same solution
- 2. Obfuscation
- 3. No support in LMS (i.e. no Turnitin equivalent)

Fuel to the Fire

- Introductory unit
 - Relatively simple exercises
 - Novice programmers
- Enrolment growth we are a target for contract cheating

Summary

- Want small and recurring exercises to maintain practice over the semester.
- These exercises are subject to misconduct.
- The intersection of students and material make it harder to untangling misconduct from coincidence.

Our Detection Techniques

Detection Mirrors the Type

- Inter
 - Student to Student
 - Student to Provider
- External
 - Student to Resource (e.g. StackOverflow, Chegg)

Type: Student to Student/Provider

• Match at the underlying structure of the program rather than the original code.

MOSS (Measure Of Software Similarity)

- Automatic system for determining the similarity of code.
- Developed at and managed by Stanford.

Moss Results

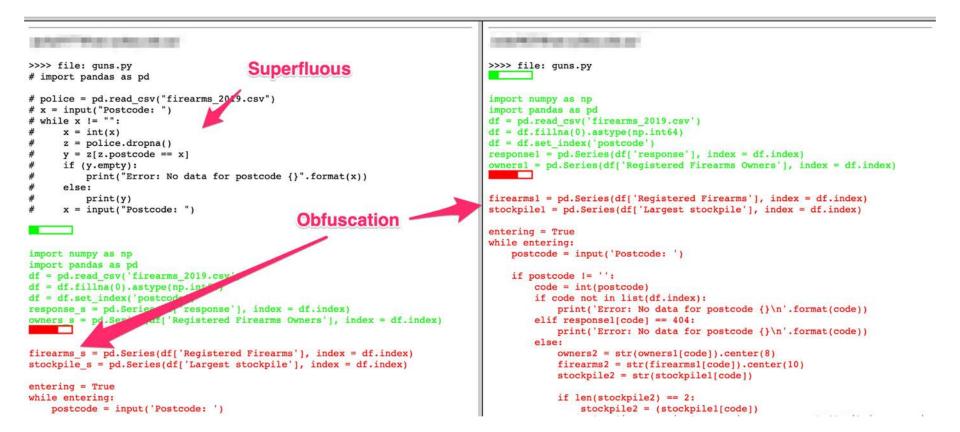
Mon Sep 26 20:12:06 PDT 2022

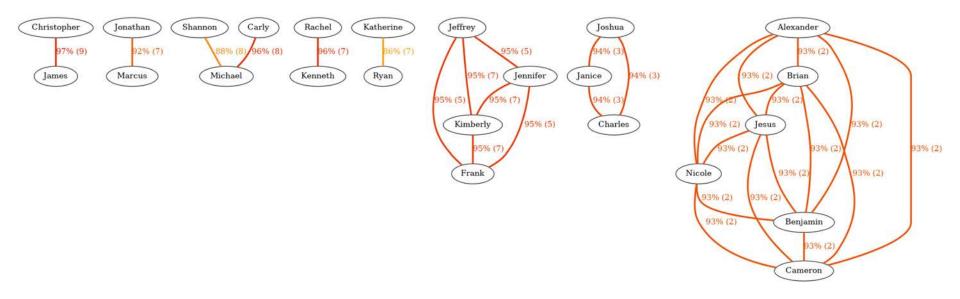
Options -1 python -d -m 10

[How to Read the Results | Tips | FAQ | Contact | Submission Scripts | Credits]

File 1	File 2	Lines Matched
Result of the second second second second	I CONTRACTOR AND ADDRESS OF	61
and the state of the little	and the second second second second	61
And States and States and States	A REPORT OF A REAL PROPERTY OF	61
And and and an order of the second	AND DESCRIPTION OF TAXABLE PARTY.	61
second second second second second	the second state of the second	61
And the state of the local division of the l	A REAL PROPERTY AND ADDRESS OF ADDRESS OF	61
And the second second second second	CONTRACTOR OF CARD OF STR	61
stands then some on the later	CONTRACTOR OF A DESCRIPTION OF A DESCRIP	61
stants that when so an inte	the second s	61
stands when a stand of the local state	And the second second second	61
	CONTRACTOR OF A DECK	46
And the second second second second	the state of the state of the state	45
		37
And the second second second second	CONTRACTOR OF CARE OF STR	36
	the second second second second	37
		46
		46
	and the second second second second	46
		36
		37
	I MARY TAXABLE AND AN	36
		46

Interest States and and the owner.	And Martin and an International Party	
<u>23-51</u>	<u>9-37</u>	
<u>16-22</u>	<u>2-8</u>	





Clusters of similarity can be visualised with MOSS results.

MOSS Shortcomings

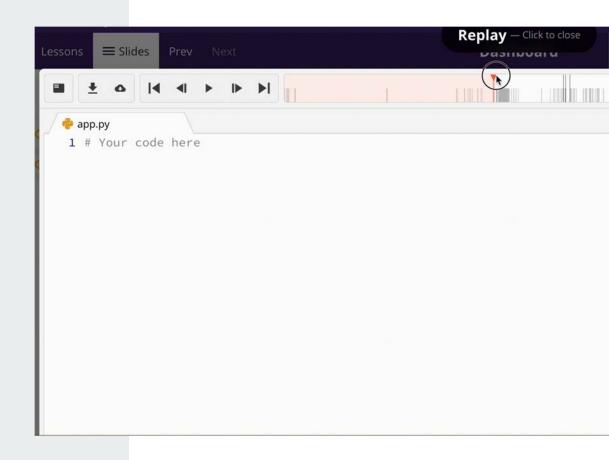
- Reliability
- Access
- Longevity
- Security and Privacy

Type: Student to Resource

- 1. Identify affected exercises via search
- 2. Match students against provided solutions
 - a. Use tell-tales
 - b. Include solution in submissions to MOSS

Manual Verification

- Replay a workspace
- Submission statistics



Early Insights

"Prevention is better than cure"

Early identificationSRES messaging

Polat Rai M	
⊗ Studen	t has been deselected above. This message will not be sent to this student.
From	QBUS5011 Bot <noreply@sydney.edu.au></noreply@sydney.edu.au>
То	Email
Subject	Plagiarism Detected - Warning
Message	Dear
	One or more of your submissions for Homework 2 has closely or exactly matched a
	third party resource and violates the University of Sydney Academic Integrity Policy.
	This email serves as your first and final warning. You may change or resubmit
	Homework 2 with your own work before the due date, April 3rd 23:59, without penal
	If you do not change your submission or if any future matches are detected you will

If you do not change your submission or if any future matches are detected you will be immediately referred to the Academic Integrity Office. This may result in delayed results, mark reduction, failure of the unit or expulsion.

Regards,

T 27 students identified. See table with more information ~

Preview messages >

Select a student

Preview

QBUS5011 Bot

Supporting Students

- Weekly and optional "Additional Practice"
- Mix of:
 - Programming exercises
 - Research exercises
 - Debugging exercises
- >30% of students completed these each week

Where to from here?

Future Plans and Reach

- 1. Standardise the process.
- 2. Continuous assessment renewal, with unique and identifiable assignment descriptions.
- 3. Search for MOSS alternatives.

This work and strategy could be adopted in other units involving programming assessments.

References and Links

- MOSS <u>https://theory.stanford.edu/~aiken/moss/</u>
- MOSS Paper

http://theory.stanford.edu/~aiken/publications/papers/sigmod03.pdf

• MOSS Visualisations <u>https://github.com/hjalti/mossum</u>

Question?





Showcase 3

Meeting the Academic Integrity Needs of Academics and Students Through Cadmus

-Andrew Allan











Meeting Undergraduate Academic Integrity Needs

Cadmus in Learning Support

Andrew Allan Coordinator – Undergraduate Learning Support





What's in store...



Ready to start?

- Undergrad Learning Support
 BUSS1000 Business Communication
- Our Diagnostic as a formative assessment
- Cadmus

as an Academic Integrity Intervention

What's in store...



Ready to start?

- Undergrad Learning Support
 BUSS1000 Business Communication
- Our Diagnostic as a formative assessment

Cadmus

as an Academic Integrity Intervention

Business Communication is...

embedded context specific, mapped to BUSS1000 assessment schedule

transitional scaffolding processes, exemplifying expectations

Semester 1, 2020 final 'in class' iteration

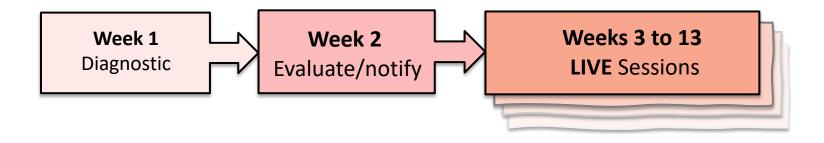
Semester 1, 2021 ~ 100% online delivery mandatory attendance 122 students

2 tier open access 3401 students

In the Program...

all students are:

- allocated a support session in their personal timetable
- required to complete the compulsory diagnostic exercise in Week 1
- able to access asynchronous resources (tier 1) and LIVE 'masterclasses' (tier 2)



What's in store...



Ready to start?

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 BUSS1000 Business Communication
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Cadmus

as an Academic Integrity Intervention

What's in store...



Ready to start?

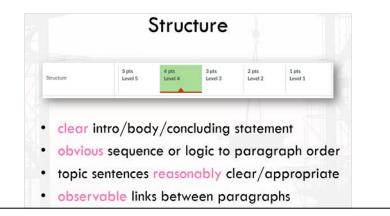
- Undergrad Learning Support
 BUSS1000 Business Communication
- Our Diagnostic as a formative assessment

Cadmus

as an Academic Integrity Intervention

Our Undergrad Diagnostic...

replicates short answer exam item, through SpeedGrader and Turnitin



Thesis Statement	5	4	3	2	1
Structure	5	4	3	2	1
Argument/critical thinking	5	4	3	2	1
Academic language use	5	4	3	2	1

You will be graded on these criteria

Thesis - your introductory statement which provides the direction your answer will take Structure - the way you organise your answer, and write your paragraphs Argument/critical thinking - how you present your ideas, provide evidence and depth to your thesis Academic language use - your word choice, grammar and level of formality

enables identification of support needs, pre-assessment formative feedback

What's in store...



Ready to start?

- Undergrad Learning Support
 BUSS1000 Business Communication
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Cadmus

as an Academic Integrity Intervention

What's in store...



Ready to start?

- Undergrad Learning Support
 BUSS1000 Business Communication
- Our Diagnostic as a formative assessment

Cadmus

as an Academic Integrity Intervention

The Cadmus Holistic Approach to Academic Integrity

prevention

infrastructure to minimise inauthentic behaviour

education

Scaffolding and educative nudges

detection

evidence to empower in investigations

Herk Kailis - CEO, Founder



Our Diagnostic and Cadmus for Academic Integrity

<u>education</u>

embeddedtransitionalscaffold and exemplify



In-tex

In-text citations

Thank you for your submission.

It seems you will need some additional APA style referencing practice with in-text citations to make sure you are following the format correctly when you submit BUSS1000 assessments. First, try the short referencing quiz in the Business Communication Canvas site in Quizzes, then follow up by referring to the APA referencing guide.

formative feedback

comments on in-text citations and reference list creation via SpeedGrader

Cadmus for Academic Integrity

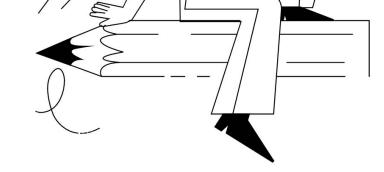
<u>education</u>

real-time intervention referencing 'chip' (pop up)

Diagnostic

BY TEST STUDENT

The University defines the philosophy underpinning its attributes. These describe the qualities, knowledge and to take responsibility for developing throughout their s attributes are not a list of skills to be mastered; rather, wider community the defining characteristics of a stud describe a set of characteristics that are designed to b disciplinary context in which they have been develope 90 words pasted. Consider paraphrasing or guoting ×



...and citation manual

sources in your own work:

on

Irams through hat students a Iniversity. The ate for both stu y degree progr beyond the pa

There are two options for citing external

1. PARAPHRASES (INDIRECT QUOTES)

When you **paraphrase** or summarise another author's ideas, you must cite the original source with **author and date**. In-text citations can take a number of forms, depending on how you structure your sentence.

Hanson (2010) found that ...

The Cadmus Holistic Approach to Academic Integrity

prevention

infrastructure to minimise inauthentic behaviour

education Scaffolding and educative nudges

detection evidence to empower in investigations

Our Diagnostic and Cadmus for Academic Integrity

prevention infrastructure



This assessment has a time limit of 1 hour and 10 minutes. You should complete it before 2nd Aug at 11:55 AM. You'll see the instructions as soon as you start the clock. Once it's started, the clock won't stop. Are you ready?



Business Communication Diagnostic S2 2022

BY TEST STUDENT



Welcome to your Cadmus Assignment.

Cadmus is an online assessment platform designed to *simplify* the way written assessment is done at university.

What's your preferred name? (Your teacher may see this name)

First Name: Test

Our Diagnostic and Cadmus for Academic Integrity

detection evidence

comparative sample

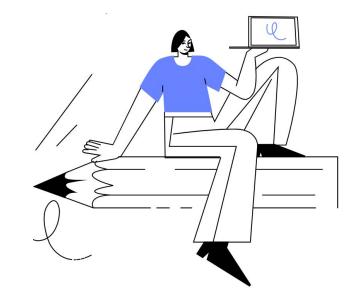
base line for written performance

analytics

cohort-level/individual performance reports

A		A B		
1	Student #	Time Spent		
2	1	2 hours 55 minutes		
3	2	0 hours 55 minutes		
4	3	0 hours 55 minutes		
5	4	0 hours 1 minutes		

G	н	1
# Pastes	% Pasted	Paste Source
3	5%	Microsoft Word
7	22%	Unknown
4	0%	Unknown
1	99%	Microsoft Word



L	M	N	
Country	Outside AU	Similarity	
HK	HK, HK	14	
AU	None	13	
AU	None	10	
AU	None	5	

So let's go do this in Cadmus



Question?





Showcase 4

Cadmus – A Powerful Tool for Improving Academic Integrity Outcomes for Take Home Assessments

-Simon Loria and Danny Li









USBS Learning & Teaching Forum

Session 1, Steam 1 – Showcase 4 Cadmus – A Powerful Tool for Improving Academic Integrity Outcomes for Take Home Assessments

Presented by Simon Loria Discipline of Business Analytics

Danny Li MCom Student (BA & Finance)





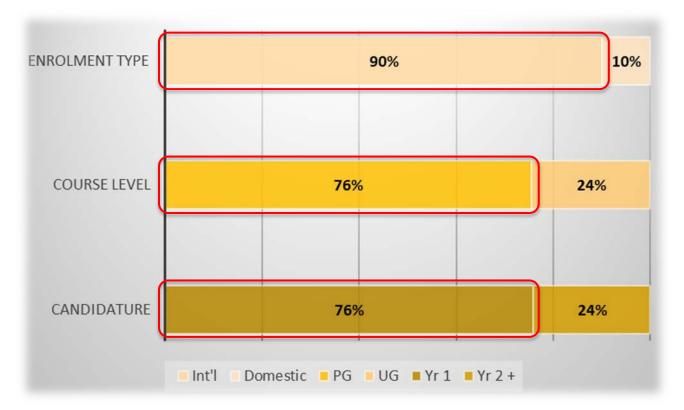
Cadmus Pilot Motivation



> Negative experiences

> UoSC fatigue & burnout> Processes overwhelmed

Business School Academic Integrity Incidents*



Reported academic integrity incidents heavily weighted towards:

- International
- Post Grad &
- 1st year student cohorts

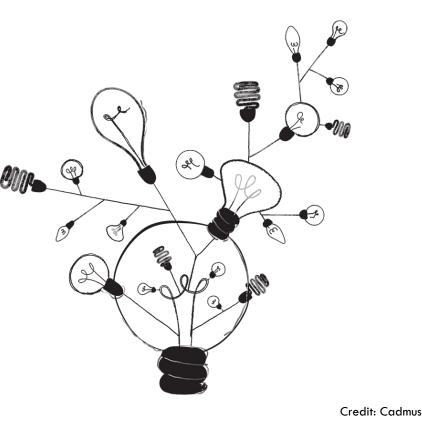
* The University of Sydney, Educational Integrity Annual Report 2021

The University of Sydney

QBUS6320 – Management Decision Making

- A Post Graduate offering from Business Analytics.
- Unit outcomes focussed on Graduate Qualities 2 – 5.
- Take home assessments integrating quantitative and qualitative skills.

Need an effective platform to conduct assessments in a safe & sound way.



What is Cadmus?

"...an online assessment platform that supports learners and empowers educators [that] improves student outcomes through better assessment experiences." https://www.cadmus.io

Pros:

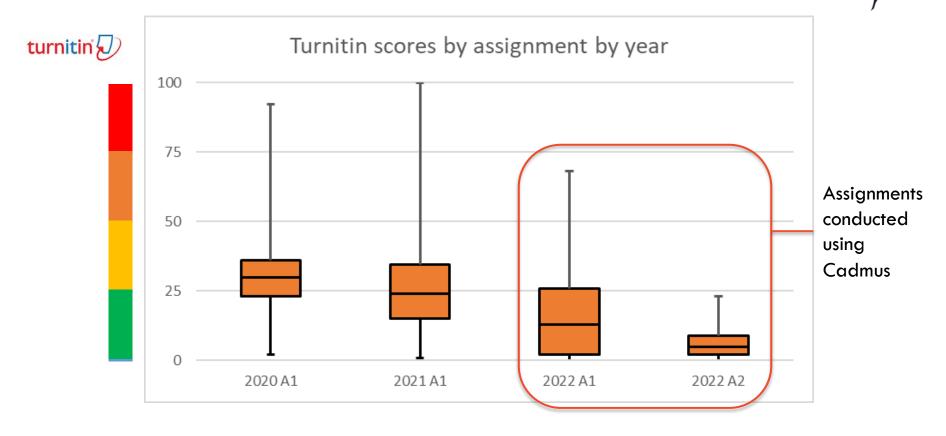
- Intuitive & fit for purpose
- Quality analytics
- Responsive support
- Minimal technical issues
- Limited negative student feedback

Cons:

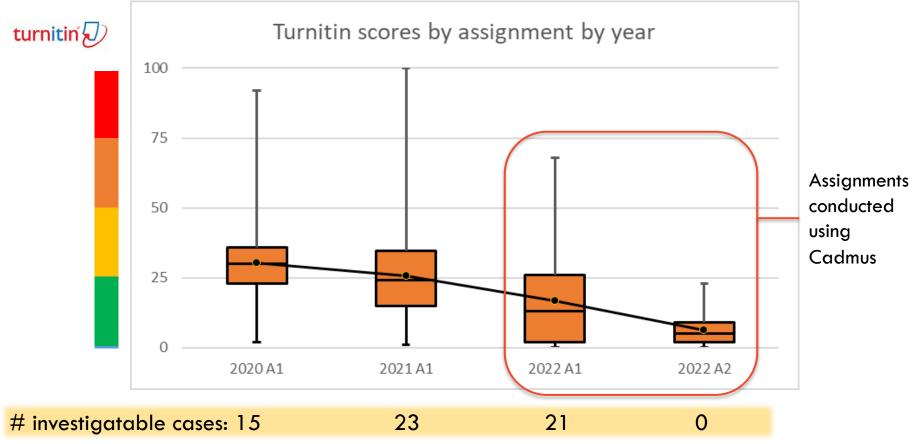
- Another platform for students
- Pasting images not yet failproof
- No maths editor or MCQ functionality.



Cadmus Pilot Outcomes – Take Home Assignments



Cadmus Pilot Outcomes – Take Home Assignments



The University of Sydney

Cadmus Pilot outcomes – Short Release Take Home Exams

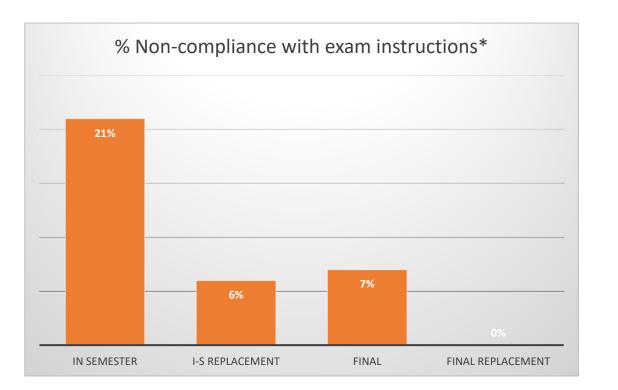
Integrity outcomes improved for each subsequent exam held during the semester

2022 S1 Exams	Turnitin Scores		
2022 31 Exams	Average	>25	Max
In Semester (n = 323)	6.6	6%	76
I-S Replacement (n = 17)	4.9	0%	24
Final (n = 323)	1.1	<0.1%	68
Final replacement (n = 13)	5.8	0%	22



We can help modify unwanted student behaviours.

Cadmus Pilot outcomes – Short Release Take Home Exams



* Including typing during upload times and missing submission deadlines

- Cadmus analytics enables pro-rated penalties.
- 3x improvement in non-compliant behaviours.
- 50% reduction in students sitting replacement exams.

Student Experience – Cadmus platform



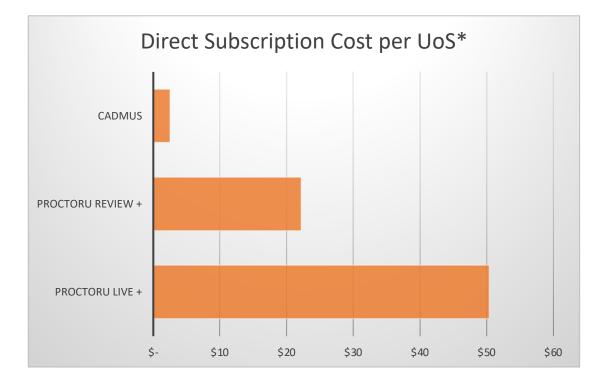


Cadmus vs ProctorU Student survey

Characteristics	Cadmus	ProctorU

Students are more comfortable using Cadmus

Cadmus – A Cost Effective Alternative?



Delivers significant direct cost savings combined with greater useability, functionality and acceptance.

Quantum of indirect cost saving are also substantial.

* Assumes two exams per unit, average exchange rates & user volumes

Opportunities and future direction

Program versus UoS implementation to drive consistent student experience and behaviours?

Exams on campus using Cadmus – the best of both worlds?

Leveraging Cadmus' quality analytics to good effect feeding into SC / AI processing proactively?

Cadmus is an accepted, reliable, cost effective tool for delivering improved pedagogical, integrity and workload outcomes.

Questions?





Next sessions

See the L &T Forum website for next sessions:

- 12:00 1.00pm
 Lunch break
- 1:00pm 2:30pm

Research and Student Experience



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Thank you!







