

THE UNIVERSITY OF NEWCASTLE



THE UNIVERSITY OF
NEWCASTLE
AUSTRALIA

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Strategy, Planning & Performance
Student and Staff Insights Team



OUR LOCATIONS

- Callaghan (Newcastle)
- Newcastle City Campus
- Central Coast
- Sydney

NSW

NEWCASTLE

SYDNEY





NEWCASTLE



HUNTER VALLEY



CENTRAL COAST



UNIVERSITY OF NEWCASTLE



UNIVERSITY SURVEYS BY NUMBERS



39,096

Total students enrolled



2745

Total fixed term
and continuing staff



15

Student survey periods
per year



69

Additional ad-hoc surveys*



80

Survey projects per year
just in the CES



132,714

CES Surveys completed*



34.5%

Semester 1 2022 Response Rate



22.3%

Semester 1 2022
Data Reliability Rate



127,446

Number of comments
collected per year **

*since 2020

**2021

A large indoor arena, possibly a university gymnasium or a large hall, with a high ceiling and skylights. A large audience is seated on the floor, facing a stage. On the stage, there is a piano and a group of people, possibly a choir or a band. The text is overlaid on the image in a large, bold, black font.

**MOVING QUALITATIVE
ANALYSIS TO BLUEML AND
THE ETHICAL IMPLICATIONS
OF MACHINE LEARNING
ALGORITHMS**

THE JOURNEY

...SO FAR

- Year of disruption
- Testing, consultation

2018

2019

2020

2021

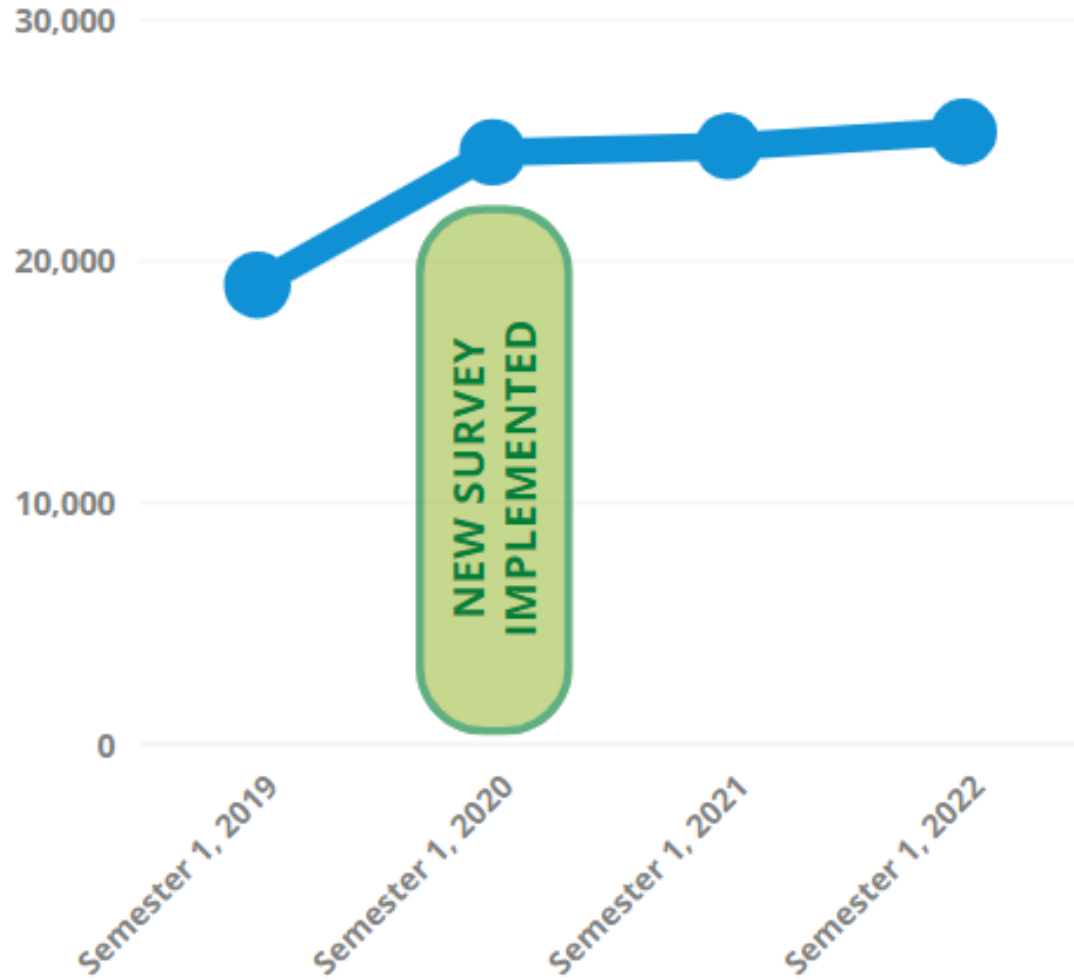
2022

- Read everything
- Steady state

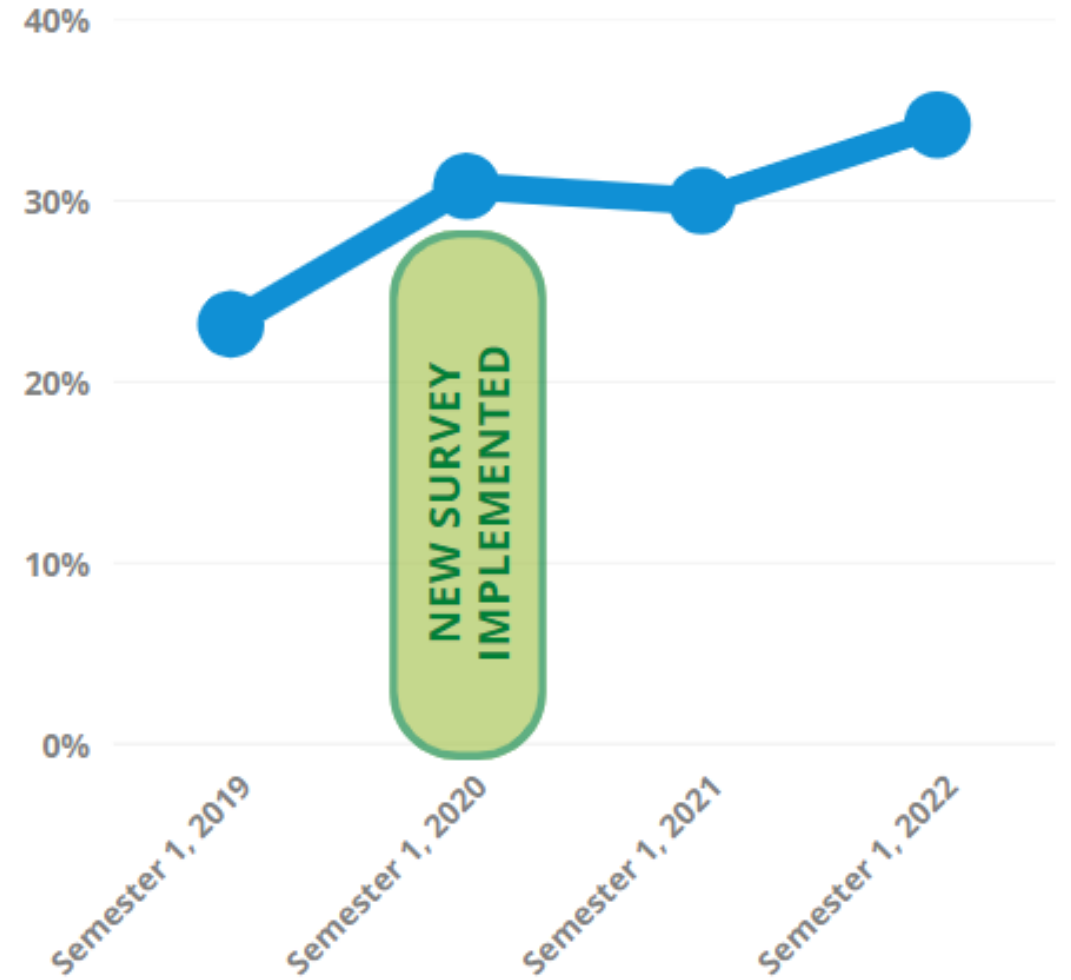
- Implemented new survey
- Feedback culture

AN EVOLVING **FEEDBACK CULTURE**

VOLUME OF RESPONSES



RESPONSE RATE - SEMESTER 1



how to make a

Compliment Sandwich

Giving
import
univers

Learn more at
www.feedbackandall.com.au



Start
positi

→ Add your
critique



Sugg
solut



End on a
good note



A how-to guide

Giving Constructive Feedback ✓✓

01

Be Objective

State what you actually experienced - don't speculate or make assumptions.

02

Be Human

Often you are giving feedback to a real person with real feelings! Be considerate and allow for small errors or mishaps.

03

Be Balanced

Provide a balance of positive and negative feedback, and remember to identify what can be improved.

04

Be Specific

Try and make your feedback clear and avoid vaguely addressing the topic.

For more info on giving and receiving good feedback, head to universityofnewcastle/feedback

How you say it can make all the difference

What were your favourite aspects of the course?



Better Feedback

Giving feedback is an important part of your university experience.

Learn more at www.feedbackandall.com.au



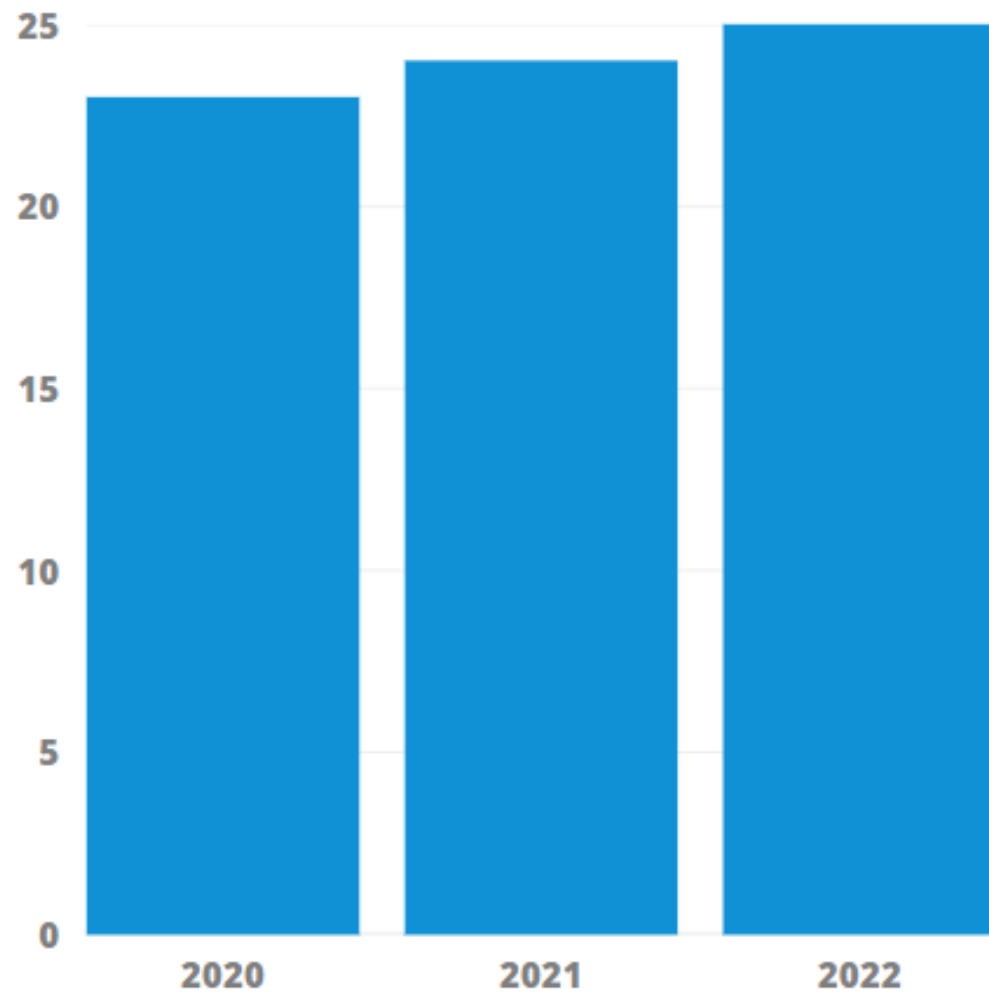
Meh Feedback



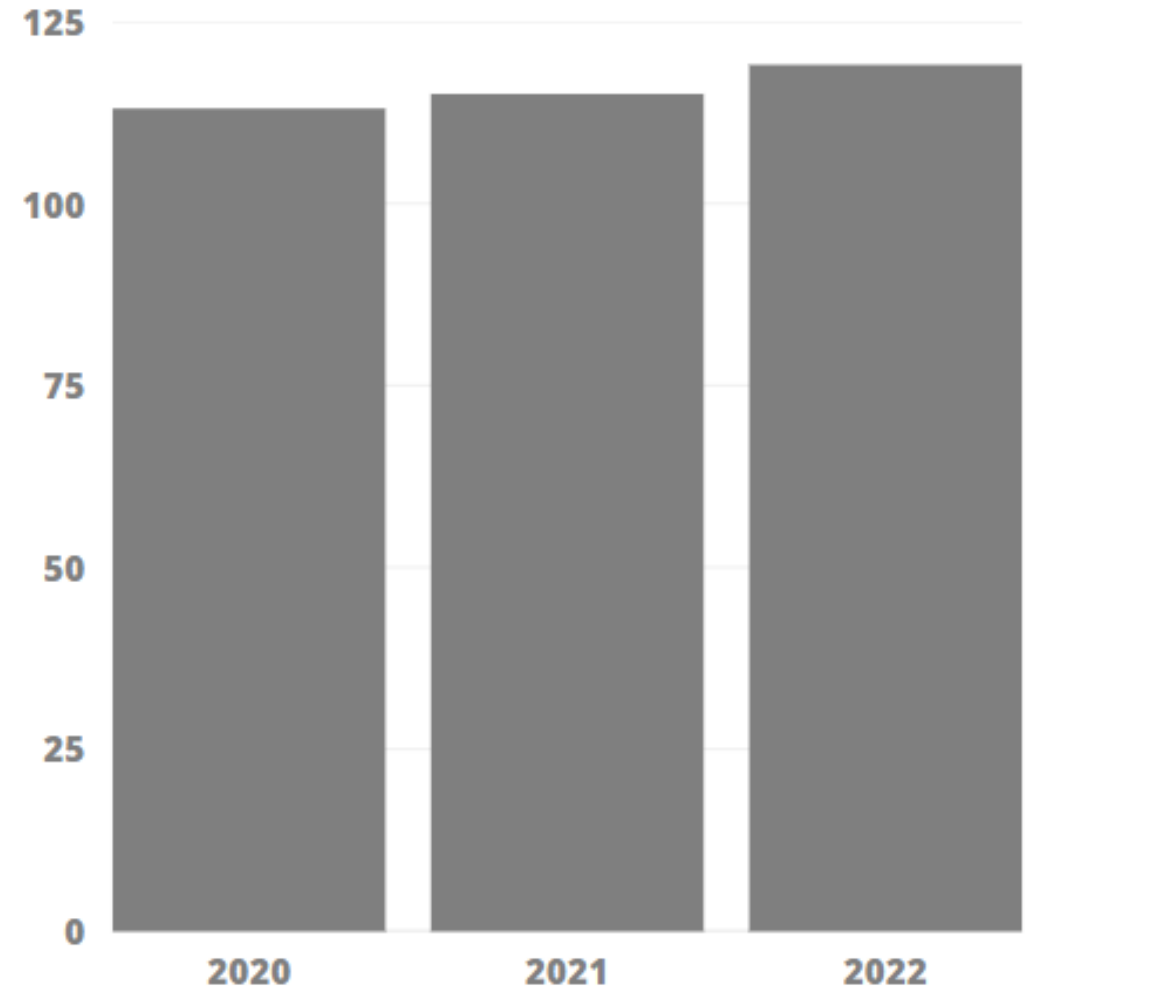
Best Feedback

AN EVOLVING **FEEDBACK CULTURE**

AVERAGE WORD COUNT PER COMMENT BY YEAR



AVERAGE CHARACTER COUNT PER COMMENT BY YEAR



THE JOURNEY

...SO FAR

- Increased engagement
- Implemented BlueML

2018

2019

2020

2021

2022

- Academic response
- Making use of BlueML

DO COMMENTS **NEED** TO BE READ?

**Student &
staff wellbeing**

**Breaches of the
Code of Conduct**

**Ensure student
voices are heard**

FOSTERING A FEEDBACK CULTURE





WHERE WE **STARTED**

**Various financial
constraints**

**Read it once,
don't read it
again**

Swear jar

WE CAN NOT PREDICT EVERY POTENTIAL TRIGGER WORD FOR THE **SWEAR JAR**

"- Didn't seem to understand or care for the material being taught, just seemed like easy money to him. Offered me MDMA, yes the drug, completely seriously in a tutorial."

"He's teaching technique, lectures, learning materials on the blackboard and what i learnt so far in the POLI 3150 which is very good. Dr Tate is the bomb for the political science and international relations"

"Fuck yeah John, go the Roosters. I feel as though John is really easy to talk to and ask questions about anything. He is very supportive when being approached about assignments and he doesn't bullshit"

"Get rid of that fucking wetlands course. We all hated it. Or at least to it at at time when they're aren't so many bloody mosquitoes."

THE GOOD OR THE BAD...

WHERE WE ARE NOW

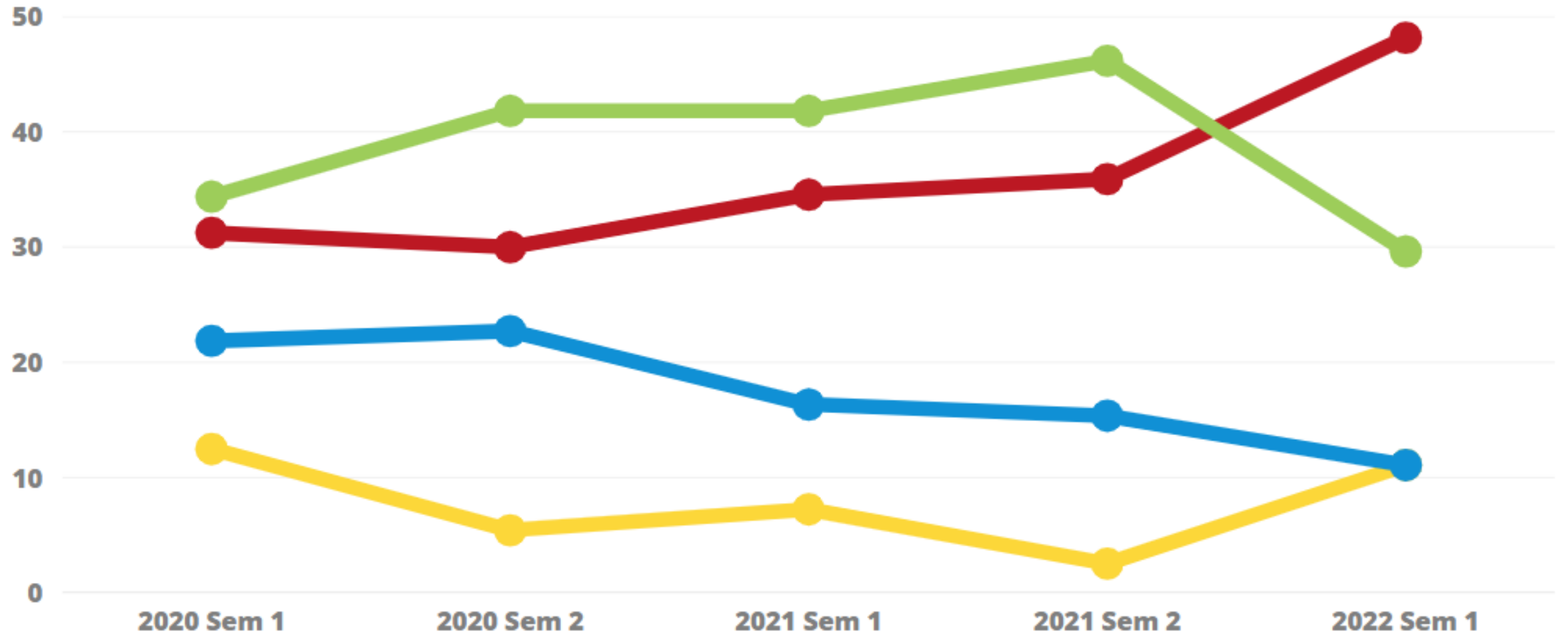
- BlueML
 - Polarity model
 - Categorisation
- All comments of concern are prioritised
- All highly negative comments are identified
- Multiple detection methods
- Removed bias, naivety and significantly reduced human error



ANALYSE SENTIMENT TRENDS

SENTIMENT OVER TIME BY COURSE

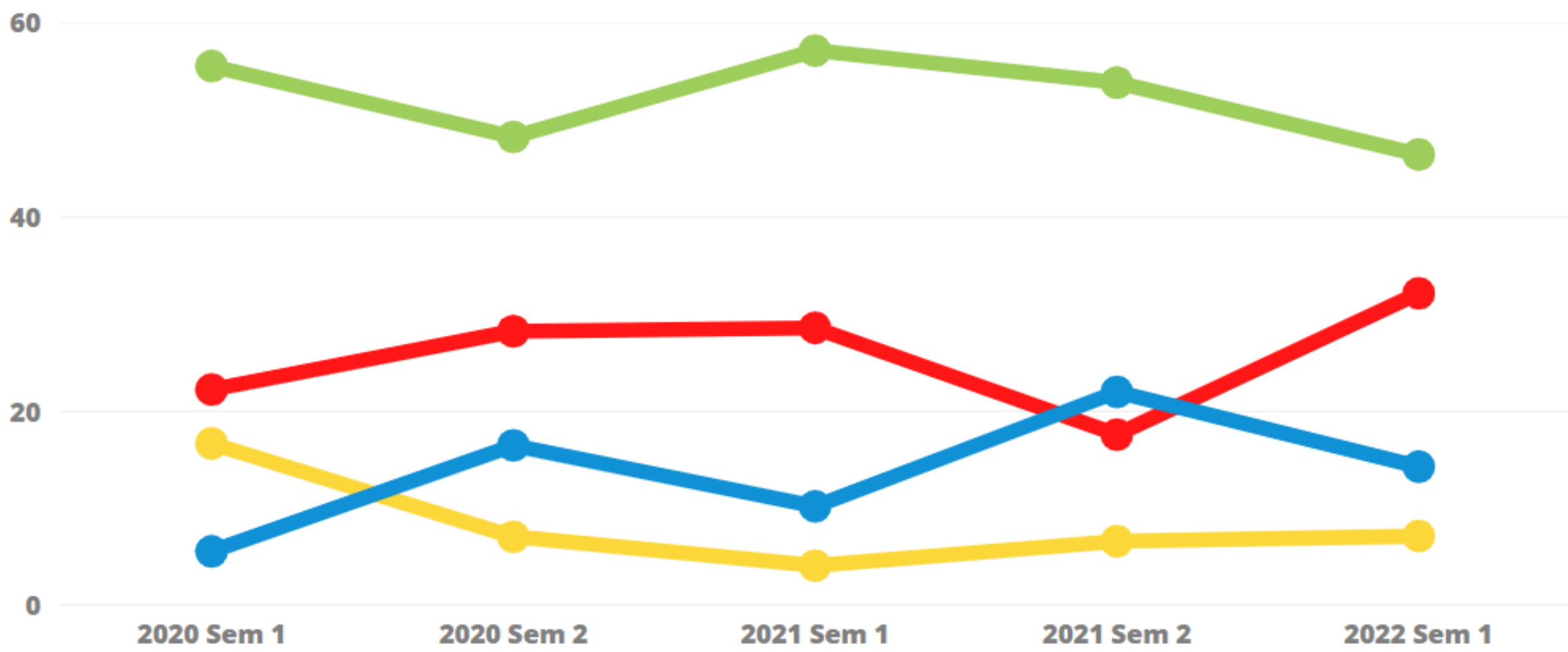
SENTIMENT ● MIXED ● NEGATIVE ● NOT EXPLICIT ● POSITIVE



ANALYSE SENTIMENT TRENDS

SENTIMENT OVER TIME BY TEACHER

SENTIMENT ● MIXED ● NEGATIVE ● NOT EXPLICIT ● POSITIVE



SENTIMENT HOT SPOTS

College	School	Feedback Type	Average of Percentage of Sentiment	College	School	Feedback Type	Average of Percentage of Sentiment
Academic Division	Indigenous Education and Research	Course	52.06%	Academic Division	Indigenous Education and Research	Teacher	48.33%
Academic Division	Pathways and Academic Learning Support	Course	54.80%	Academic Division	Pathways and Academic Learning Support	Teacher	63.46%
Engineering, Science and Environment	Architecture and Built Environment	Course	44.65%	Engineering, Science and Environment	Architecture and Built Environment	Teacher	61.57%
Engineering, Science and Environment	Engineering	Course	46.50%	Engineering, Science and Environment	Engineering	Teacher	62.19%
Engineering, Science and Environment	Environmental and Life Sciences	Course	48.56%	Engineering, Science and Environment	Environmental and Life Sciences	Teacher	61.87%
Engineering, Science and Environment	Information and Physical Sciences	Course	42.92%	Engineering, Science and Environment	Information and Physical Sciences	Teacher	60.71%
Engineering, Science and Environment	Psychological Sciences	Course	46.14%	Engineering, Science and Environment	Psychological Sciences	Teacher	61.65%
Health, Medicine and Wellbeing	Biomedical Sciences and Pharmacy	Course	40.97%	Health, Medicine and Wellbeing	Biomedical Sciences and Pharmacy	Teacher	62.08%
Health, Medicine and Wellbeing	Health Sciences	Course	47.54%	Health, Medicine and Wellbeing	Health Sciences	Teacher	67.44%
Health, Medicine and Wellbeing	Medicine and Public Health	Course	51.74%	Health, Medicine and Wellbeing	Medicine and Public Health	Teacher	65.96%
Health, Medicine and Wellbeing	Nursing and Midwifery	Course	41.53%	Health, Medicine and Wellbeing	Nursing and Midwifery	Teacher	58.09%
Human and Social Futures	Education	Course	49.27%	Human and Social Futures	Education	Teacher	67.88%
Human and Social Futures	Humanities, Creative Industries and Social Sciences	Course	47.95%	Human and Social Futures	Humanities, Creative Industries and Social Sciences	Teacher	63.48%
Human and Social Futures	Newcastle Business School	Course	44.48%	Human and Social Futures	Newcastle Business School	Teacher	55.26%
Human and Social Futures	Newcastle Law School	Course	44.39%	Human and Social Futures	Newcastle Law School	Teacher	60.54%

SENTIMENT HOT SPOTS

Teacher Feedback - 2021

College	School	Course	Feedback Type	Average of Percentage of Sentiment
Human and Social Futures	Education	EDUC1014	Teacher	60.76%
Human and Social Futures	Education	EDUC1038	Teacher	57.79%
Human and Social Futures	Education	EDUC1048	Teacher	62.49%
Human and Social Futures	Education	EDUC1050	Teacher	51.03%
Human and Social Futures	Education	EDUC1058	Teacher	56.19%
Human and Social Futures	Education	EDUC1101	Teacher	73.27%
Human and Social Futures	Education	EDUC2102	Teacher	58.76%
Human and Social Futures	Education	EDUC2181	Teacher	50.93%
Human and Social Futures	Education	EDUC2200	Teacher	50.00%
Human and Social Futures	Education	EDUC2748	Teacher	65.22%
Human and Social Futures	Education	EDUC2749	Teacher	57.25%
Human and Social Futures	Education	EDUC3026	Teacher	73.84%
Human and Social Futures	Education	EDUC3055	Teacher	56.78%
Human and Social Futures	Education	EDUC3203	Teacher	72.22%
Human and Social Futures	Education	EDUC4136	Teacher	66.67%
Human and Social Futures	Education	EDUC4181	Teacher	49.28%
Human and Social Futures	Education	EDUC4748	Teacher	52.46%
Human and Social Futures	Education	EDUC4750	Teacher	47.22%
Human and Social Futures	Education	EDUC4991	Teacher	70.37%
Human and Social Futures	Education	EDUC6080	Teacher	55.32%
Human and Social Futures	Education	EDUC6085	Teacher	60.29%
Human and Social Futures	Education	EDUC6086	Teacher	61.18%
Human and Social Futures	Education	EDUC6088	Teacher	66.36%
Human and Social Futures	Education	EDUC6117	Teacher	73.08%
Human and Social Futures	Education	EDUC6165	Teacher	66.67%

Teacher Feedback - 2022

College	School	Course	Feedback Type	Average of Percentage of Sentiment
Human and Social Futures	Education	EDUC1014	Teacher	75.86%
Human and Social Futures	Education	EDUC1038	Teacher	70.02%
Human and Social Futures	Education	EDUC1048	Teacher	62.74%
Human and Social Futures	Education	EDUC1050	Teacher	67.33%
Human and Social Futures	Education	EDUC1058	Teacher	74.47%
Human and Social Futures	Education	EDUC1101	Teacher	78.86%
Human and Social Futures	Education	EDUC2102	Teacher	69.14%
Human and Social Futures	Education	EDUC2181	Teacher	70.59%
Human and Social Futures	Education	EDUC2200	Teacher	70.51%
Human and Social Futures	Education	EDUC2748	Teacher	58.47%
Human and Social Futures	Education	EDUC2749	Teacher	64.85%
Human and Social Futures	Education	EDUC3026	Teacher	73.29%
Human and Social Futures	Education	EDUC3203	Teacher	75.00%
Human and Social Futures	Education	EDUC4015	Teacher	69.23%
Human and Social Futures	Education	EDUC4063	Teacher	76.92%
Human and Social Futures	Education	EDUC4143	Teacher	73.08%
Human and Social Futures	Education	EDUC4181	Teacher	56.67%
Human and Social Futures	Education	EDUC4748	Teacher	75.00%
Human and Social Futures	Education	EDUC6080	Teacher	65.85%
Human and Social Futures	Education	EDUC6085	Teacher	65.22%
Human and Social Futures	Education	EDUC6086	Teacher	59.09%
Human and Social Futures	Education	EDUC6088	Teacher	59.26%
Human and Social Futures	Education	EDUC6120	Teacher	61.54%
Human and Social Futures	Education	EDUC6165	Teacher	65.38%

CATEGORISATION OVER TIME

OVERALL STATS




ANALYSED	CATEGORISED	POSITIVE	NEGATIVE	NEUTRAL	NOT EXPLICIT	NOT CATEGORISED
127446	53411	93%	5%	0%	1%	74035

MOST POPULAR TOPICS	MOST POSITIVE TOPICS	WHAT TO IMPROVE
Unspecified person - Helpfulness & Support  12328	Unspecified person - Helpfulness & Support  12328	Student wellbeing - Mental health  72
Professor/instructor - Quality  6599	Professor/instructor - Quality  6599	Stressfulness  20
Professor/instructor - Helpfulness & support  5329	Professor/instructor - Helpfulness & support  5329	Services - Other  14
Course material & structure - Course content/concept  4895	Course material & structure - Course content/concept  4895	Expenses/fees  327

CATEGORISATION OVER TIME

TOPICS EXPLORER

TOPIC: MISCELLANEOUS

TOPICS	COMMENTS	INSIGHTS	POSITIVE	NEGATIVE	NEUTRAL	NOT EXPLICIT	RECOMMENDATIONS	SENTIMENTS
MISCELLANEOUS	5300	5696	3501	1473	0	50	672	 70%
↓								
STUDENT WELLBEING	72	72	0	72	0	0	0	 100%
↓								
MENTAL HEALTH	72	72	0	72	0	0	0	 100%

CATEGORISATION OVER TIME

COMMENTS EXPLORER

ANALYSED	CATEGORISED	POSITIVE	NEGATIVE	NEUTRAL	NOT EXPLICIT	NOT CATEGORISED
127446	53411	93%	5%	0%	1%	74035

learning more about different forms of mental health, the kind of information available for patients if they need help.	Miscellaneous / Student wellbeing / Mental health	Negative
As I struggle with anxiety issues, this did not help me settle into studying this subject ad I felt I had no option but to drop this course.	Miscellaneous / Student wellbeing / Mental health	Negative
More open to feedback and other mental health areas which may different to acute mental health nursing.	Miscellaneous / Student wellbeing / Mental health	Negative
More content about mental health, specifically mental disorders/illnesses.	Miscellaneous / Student wellbeing / Mental health	Negative

ETHICAL CONSIDERATIONS



CARE

Prevent harm & promote well-being

RESPONSIBILITY

Ensure privacy, security and 'capability caution'

BALANCE

Autonomy & human intervention

JUSTICE

Use machine learning to avoid human error, unfairness & bias

TRANSPARENCY

Communicate clearly about ML and explain accountability

OUR COMMITMENTS

We provide clarity in how and to what extent algorithmic processing contributes to decision-making

We identify what data is processed and its source

We use plain language to explain how different models are applied, the development of the algorithms that drive the ML process

We employ human intervention

We explain how data and privacy are protected and data is kept secure

We actively “train” the model and will re-process data as the models mature

We provide the recipients a right of reply

We communicate which operations were carried out in the treatment

THANK YOU

QUESTIONS?

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