



# Keep calm and carry on": A survey of medical imaging students on the impact of a COVID-19 lockdown in Aotearoa New Zealand

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# Background



# Impacts of COVID-19 to NZ

01

## Healthcare Impact

The pandemic led to significant healthcare demands, with estimates suggesting up to 32,000 hospitalizations and 14,400 deaths in severe scenarios.

02

## Social and Psychological Impact

The pandemic and associated lockdowns had notable social and psychological effects, including increased stress and anxiety

03

## Economic Impact

New Zealand's economy experienced a record 12.2% contraction in GDP during the June 2020 quarter

[https://www.health.govt.nz/system/files/2020-03/report\\_for\\_moh\\_-\\_covid-19\\_pandemic\\_nz\\_final.pdf](https://www.health.govt.nz/system/files/2020-03/report_for_moh_-_covid-19_pandemic_nz_final.pdf)

# Impacts of COVID-19 lockdown to Tertiary education

**01**

## **Shift to Online Learning:**

Many institutions transitioned to online learning, which posed challenges for both students and educators

**02**

## **Academic Performance**

Overall course completion rates for domestic students remained stable initially but saw a slight decline in 2022

**03**

## **Well-being of Students**

The shift to online learning and the uncertainty caused by the pandemic increased stress and anxiety among students.

[https://www.educationcounts.govt.nz/publications/tertiary\\_education/covid-19/the-impact-of-covid-19-on-tertiary-education-in-nz-course-completions-2019-2022](https://www.educationcounts.govt.nz/publications/tertiary_education/covid-19/the-impact-of-covid-19-on-tertiary-education-in-nz-course-completions-2019-2022)

02

## Objectives of this research

# Objectives of this research

01

Students' rating of online vs. face-to-face teaching.

02

Overall impact of an enforced lockdown on medical imaging learners' well-being

03

Whether an unexpected and sudden move to online teaching influenced students' academic performance

# 03

## Methods and Ethics

The study was approved by the Unitec research ethics committee in October 2020 and data commenced.

# Methods

Students from one undergraduate medical imaging degree programme who were taught during New Zealand's first "lockdown" in semester 1, 2020 completed an online questionnaire. The students' academic performance was compared to the previous cohort's average course completion rate of 4 core courses.

## Online questionnaire

The online questionnaire was adapted from another survey to meet the research aim (McKelvie-Sebileau et al. 2021) . Expert panel reviewed for completion time, question clarity, relevance, and content validity.

McKelvie-Sebileau, P., et al (2022). A Longitudinal Study Exploring Resilience and Wellbeing of Staff from Five Institutions Across the Te Pūkenga Network During the 2020 Covid-19 Lockdown and Subsequent Lifting of Social Restrictions. In E. Papoutsaki and M. Shannon (Eds.), Proceedings: 2021 ITP Research Symposium, 25 and 26 November (pp. 135–152). Auckland: ePress, Unitec, Te Pūkenga. <https://doi.org/10.34074/proc.2205011>

## Recruitment

- Promotion by an unrelated lecturer to reduce power differential.
- Participation was voluntary, anonymous, and confidential.
- The academic performance of the 2018 and 2019 cohorts was compared by calculating the average course completion rates for four core courses. The 2018 cohort was selected, as it was unaffected by the COVID-19 pandemic.

# 04 Demographics

21 out of a cohort of 37 medical imaging students responded to the online survey, indicating a response rate of 57%.

Table 1 Age distribution of participants

Age group	Percentage
18-20	13%
21-26	57%
27-40	20%
41 and over	10%

# 05-07

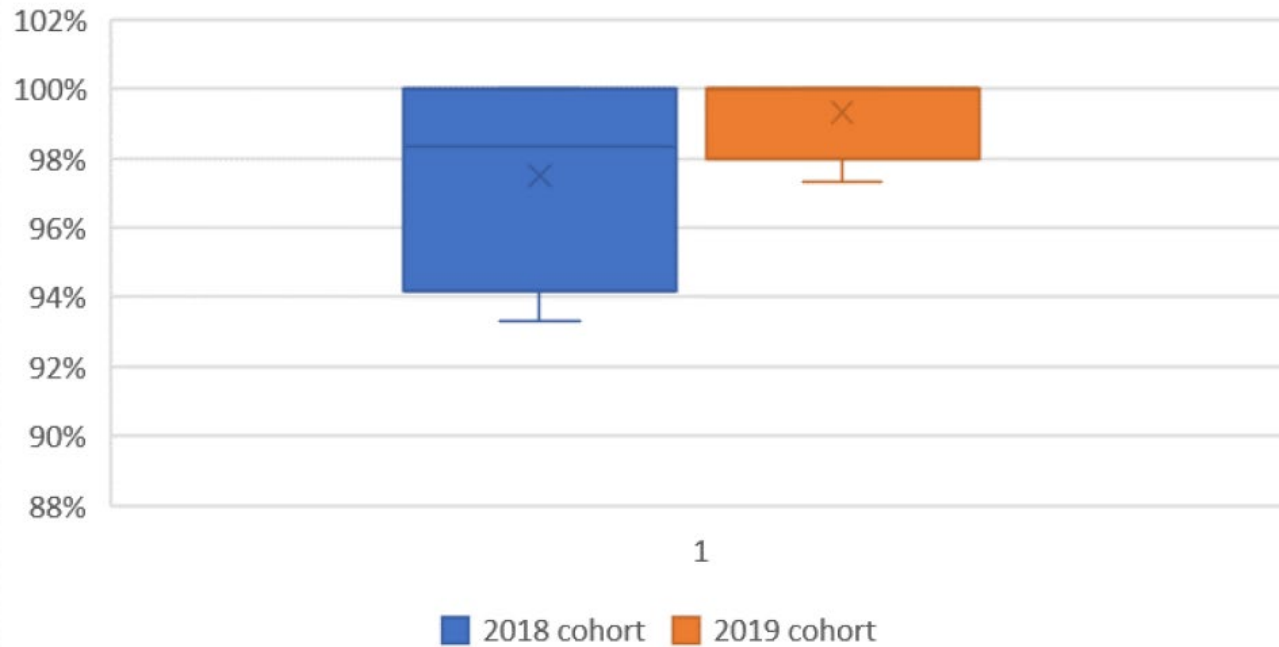
## Results



Table 2 Self-rated results of the experience of online learning and academic performance

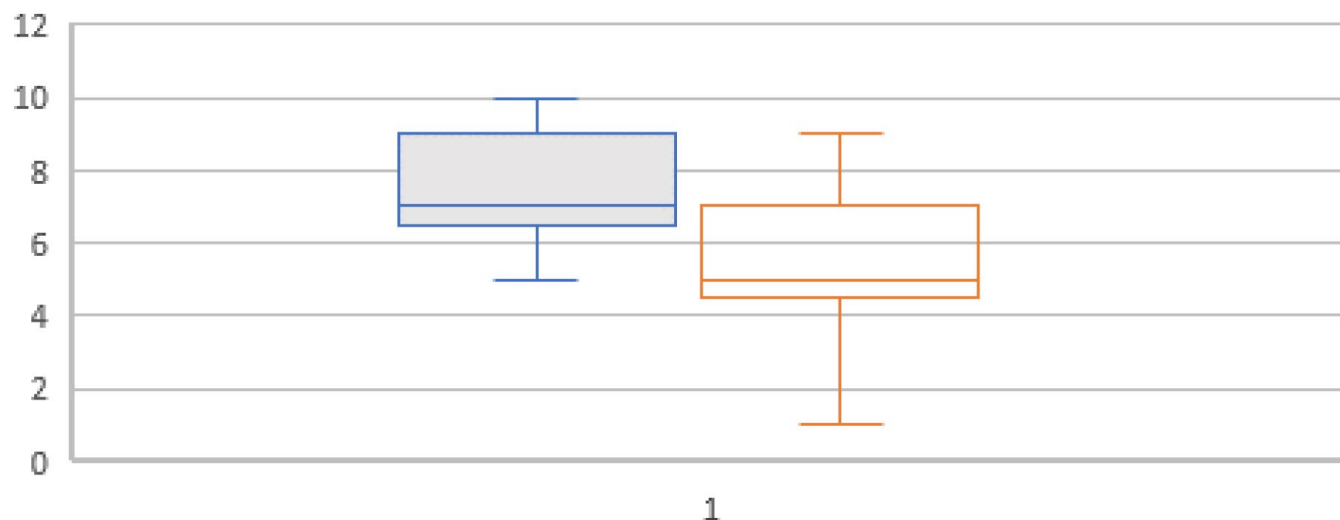
	Better than or same as before lockdown	Worse than before lockdown	Don't know
Experience of Online Learning	62%	28%	10%
Academic Performance	57%	33%	10%

Figure 1 Course Completion rate of 4 core courses



# FIGURE 2 OVERALL WELLBEING BEFORE AND AFTER LOCKDOWN

Overall well-being before lockdown Overall well-being after lockdown



During the level 4 nationwide lockdown, how would you have rated your concerns regarding the prospects of employability and job security related to your career

21 responses

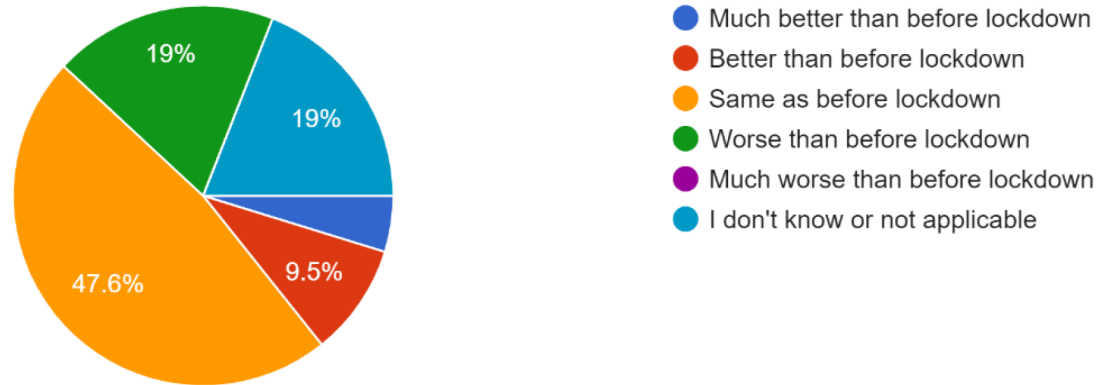


Figure 3 Survey results of Prospects of employability and future job security

08

# Discussion



# Main findings

## Students' opinions

Provision of IT (Information technology) support; the online learning experience; quality of sleep as the same or better than before lockdown.

## Academic Performance

There was no significant difference in the average successful course completion rate between the cohorts ( $p > 0.05$ )

## Students' Well-being

Overall well-being was significantly reduced ( $p < 0.001$ ).

# Things we did well and lucks.

**01**

The lockdown period was limited to approximately four and a half weeks. The medical imaging lecturers have many years of teaching experience and were able to make significant but effective changes to their course content

**02**

Online teaching platforms such as Zoom™ or Echo 360™ have some advantages compared to face-to-face teaching. Online teaching promotes a flexible student learning environment through opportunities to interact with learning material at a time that suits the learner

**03**

During the lockdown period, most lectures covered academic theory rather than being focussed on clinical practice.

09

Limitations



# Limitations



Students were not given the opportunity to expand on the factors which influenced feelings of well-being.



It considered the experiences of medical imaging students within a context bound environment.



The survey was distributed retrospectively post-lockdown and could be subject to recall bias. The study was based at one educational institution with a small sample size

**10**

**Conclusions**



# Conclusions

**01**

The results suggest that the COVID level 4 lockdown had no significant impact on medical imaging students' self-rating of teaching and learning.

**02**

The results suggest that the COVID level 4 lockdown had no significant impact on successful course completion rates.

**03**

However, medical imaging students' overall well-being was negatively impacted.

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Q & A

**THANKS**

