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Deakin University's teaching and assessment approaches pre- and post-COVID 19: A review

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Executive Summary

This report provides insights into how academics at Deakin University have adapted their teaching, assessment, and examination practices in response to the COVID-19 pandemic compared to 2019 practices. Data were collected through survey (n=67) and interview (n=21).

Learning Activities

Key Insight: The pandemic accelerated the adoption of flexible and online learning methods, with many academics continuing to use these methods post-pandemic.

- 82% of academics retained at least one change post-pandemic.
- There is a significant trend towards diversified content delivery methods, especially online learning formats.
- On-campus lectures declined for most units.

Assessment

Key Insight: The pandemic prompted a re-evaluation of assessment methods to make them more applicable, meaningful, and equitable for all students.

- 63% of academics retained changes in assessment methods post-pandemic.
- Notable shifts included increased utilisation of authentic assessment tasks, scaffolded and sequential assessment tasks, and a transition to online assessment formats.

Examinations

Key Insight: The pandemic has instigated a notable move away from traditional exam methods, reflecting the adoption of alternative assessment means and re-evaluation of exam importance in grading schemes.

- A dramatic shift was observed in examination methods. While 97% of exams in 2019 were traditional on-campus formats, post-pandemic saw a rise in unsupervised online exams (44%) or the removal of exams entirely (33%).
- The weighting of exams decreased on average by 14% from 2019 to 2022/2023.

Factors Influencing Change

- Organisational instructions were highly influential for examinations.
- A desire to innovate and reflective practice primarily drove learning activities and assessments.
- Local leadership played a consistently important role across all teaching practice changes.
- University-level factors, like organisational directives and workload allocation, greatly impacted academic work.

Student Dynamics Post-Pandemic

- **Support:** There's an evident increase in the support sought by students, with a preference for personalised touchpoints like emails and one-on-one meetings.
- **Time management:** A surge in requests for assessment extensions and special considerations was noted.
- **Motivation:** A widespread decline in student motivation was reported, with challenges in self-directed and self-regulated learning, autonomy, and emotional regulation.
- **Engagement:** Post-pandemic student participation diminished in both online and in-person scheduled activities.

Academics' Intention to continue Post-Pandemic Changes

Key insight: Academics displayed a high intention to maintain the implemented changes into the future.

- Academics demonstrated positive attitudes toward the implemented changes.
- Academics believed that their colleagues also held positive views regarding the changes.
- Academics expressed confidence in having the necessary resources, skills, and support to sustain the changes successfully.

Academics' Perceptions of Post-Pandemic Changes

- Post-pandemic modifications to learning activities, examinations, and assessments were generally deemed satisfactory and sustainable by the academic staff.
- The magnitude of change was notably higher for exams.

Conclusion

Our study counters pandemic-driven teaching as purely emergency remote teaching or a desperate alternative. It demonstrates, at least at this single institution, how the pandemic inspired new perspectives on educational activities, assessments, and examinations that have persisted into the post-pandemic era. The data suggests that while academic modifications were positively received by staff, students faced challenges in engagement and motivation, preferring more individualised support in the aftermath of the pandemic. Academics were influenced by university leadership and by workload allocations. They listened to local teaching and learning leaders, were reflective about what worked and what didn't work during the pandemic and were driven to make innovative decisions. Importantly, they focused on enhanced inclusivity and student-centred pedagogy. The data indicates that a whole university change can occur. This occurred through the University's strategic vision, local leadership adaptation and autonomy of on-the-ground educators. Lastly, the enduring takeaway from the teaching experience during the pandemic could be how higher education institutions respond to significant shifts, such as the influence of AI.

This study suggests that future changes include collaborative and multi-level approaches to change.

- **Institutional vision with strategic purpose:** University leadership can articulate a clear, forward-looking blueprint emphasising adaptability, inclusivity, and embracing digital tools. This vision will not only advocate for the integration of technological advancements but will also champion assessment methods such as authentic and scaffolded tasks, recognising their direct relevance to real-world scenarios.
- **Empower local leaders:** Each faculty and/or school and/or department possesses unique challenges and strengths. Entrust local leaders with the freedom to interpret and apply overarching university strategies in ways that best fit their specific context. To ensure the changes remain aligned with the broader university goals while addressing faculty-specific challenges, initiate routine feedback dialogues with these leaders.
- **Cultivate pedagogical autonomy at the ground level:** Change is best promoted by empowering educators at the front lines of teaching "to tweak and transform" their methods in response to their insights and the diverse needs of their students. Foster an environment that values continuous learning, innovation, and reflection. Recognising the potential burden of rapid change, it's vital to periodically re-evaluate workload distribution models, ensuring they align with both pedagogical objectives and the well-being of the academic staff.

Publications related to this report

The data contained in this report, along with qualitative data from the interviews and survey, has been used to compile the following manuscripts.

Published articles.

1. Broadbent, J., Ajjawi, R., Bearman, M., Boud, D. & Dawson, P. (2023). Beyond emergency remote teaching: did the pandemic lead to lasting change in university courses? *International Journal of Educational Technology in Higher Education*, 20(1), 1-20. <https://doi.org/10.1186/s41239-023-00428-z>

The COVID-19 pandemic significantly disrupted traditional methods of teaching and learning within higher education. But what remained when the pandemic passed? This study examines enduring effects of these disruptions on teaching and assessment in a large comprehensive Australian university. Data were gathered from academics of varying disciplines, through a mixed-methods approach, collecting 67 survey responses and conducting 21 interviews. We aimed to compare pedagogical practices in matched courses pre-pandemic (2019) and post-pandemic (2022/2023), and to understand the key influencing factors and academics' perceptions of change. Findings indicate a notable increase in online learning activities, authentic and scaffolded assessments, and online unsupervised exams post-pandemic. These changes were primarily driven by university-guided adaptations, time and workload pressures, continued COVID-19 challenges, local leadership, an individual desire to innovate, and concerns about academic integrity. While most changes were seen as favourable by academics, perceptions were less positive concerning online examinations. These findings illuminate the enduring effects of the pandemic on higher education, suggesting longer-term implications than previous studies conducted during the acute phase of the pandemic.

Manuscripts under review.

2. Broadbent, J., Bearman, M., Boud, D. & Dawson, P. (*under review*). Beyond the new normal: Positive attitude predicts intention to sustain changes to teaching post-pandemic.

In response to the COVID-19 pandemic, higher education institutions globally transitioned to new teaching methodologies, including online learning and modified assessment strategies. A significant question emerges: will educators revert to pre-pandemic methods or retain these new practices? Using the Theory of Planned Behaviour, we assessed the roles of attitudes, subjective norms, and perceived control in determining 63 academics' intentions to maintain instructional shifts. Collectively, these elements robustly predicted intention, explaining 38% of the variance. Notably, our findings revealed that fostering a positive attitude towards these changes was the sole unique driver for wanting to maintain them. While not undermining the relevance of other factors, attitude emerges as a linchpin in this context. Without a conducive attitude to teaching, the efforts of others and perceived control become inconsequential in effecting educational change. Our study offers an understanding of the variables influencing academics' intentions to sustain shifts in teaching practices. Such knowledge can guide future decision-making in higher education environments.

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Study Overview

The COVID-19 pandemic reshaped higher education, leading to debates about its future trajectory. There's broad agreement that post-pandemic education should enhance blended and online learning experiences and reform traditional assessments. Deakin University, through its DeakinDesign initiatives, has championed these changes. Yet, beyond institutional changes, academics also independently adapted their teaching and assessment based on pandemic experiences.

This study investigates the post-pandemic (2022/2023) teaching, exam and assessment changes at Deakin University compared to 2019. Specifically, we examined:

1. Shifts in the usage of class time,
2. Changes in assessment methods,
3. Variations in the nature and frequency of exams,
4. The impact of student motivations and support on these changes,
5. Influential factors of change using Bronfenbrenner's ecological systems theory (Broadbent et al., 2023),
6. The likelihood of maintaining these changes is framed within the Theory of Planned Behaviour (manuscript under review).

Survey data which included 67 academics who responded to a survey between November 21, 2022, and April 9, 2023. Interview data included 21 academics who were interviewed between January 24, 2023, and April 20, 2023.

Respondents

Sixty-seven academics completed the survey, and a subset of 21 academics (31%) participated in a post-survey interview. Participants were most likely to be 40 years or older ($n = 48$; 72%) and female ($n = 32$; 48%; male $n = 32$; 45%). The majority ($n = 53$; 80%) were Level B (Lecturer) or Level C (Senior Lecturer) academics, and most respondents had more than ten years of tertiary teaching experience ($n = 48$; 72%). The average teaching allocation in their workload was 52% (range = 15-100%; $SD = 19\%$). Participants came from across the University (Faculty of Education and Arts = 19%; Faculty of Health = 34%; Faculty of Science, Engineering, and Built Environment = 30%; Faculty of Business and Law = 16%).

Units

From the survey data, academics were responsible for mostly first-year units ($n = 30$ units; 45%), followed by 2nd year ($n = 16$ units; 24%) and 3rd year ($n = 16$ units; 24%). The majority ($n = 46$ units; 69%) were core units in their respective courses. The average enrolment of the units was medium to large, with slightly fewer students in 2022/2023 ($M = 487$ students) compared to 2019 ($M = 498$ students). Ten (15%) were Work Integrated Learning (WIL) units.

Compared to 2019, 95% of academics had changed their units. The majority of academics changed learning activities *and* assessments *and* examinations in their unit ($n=25$; 37%), followed by learning activities *only* ($n=12$; 18%), learning activities *and* assessment ($n=10$; 15%), learning activities *and* examination ($n=8$; 12%), assessments *and* examinations ($n=4$; 6%), assessments *only* ($n=3$; 4%) and examinations *only* ($n=1$; 1%). Four academics (6%) reverted to 2019 practices after the pandemic.

Learning Activities

Fifty-five academics (82%) indicated that, in 2022/2023, they had retained at least one change in learning activities¹ that differed from their 2019 teaching practices (see Figure 1).

Academics noted significant increases in online learning activities post-pandemic, including the utilisation of pre-recorded chunked videos ($n=33$), online interaction ($n=32$), online self-paced content ($n=30$), online Q&A / discussion sessions ($n=29$), online self-paced activities ($n=28$) and online recording of on-campus lecture /seminars ($n=23$).

On-campus lectures decreased in most units ($n=22$). This reflects a move away from running the same lecture multiple times on different campuses towards other forms of delivering content.

The remaining 15 learning activities (shown in Figure 1) had no change in most units. No change may indicate that the focus had not changed for these learning activities (e.g., the activity was/wasn't a focus in 2019 and remained a similar focus (or not) post-pandemic).

Key Insights

This shift signifies academics' embrace of more flexible approaches post-pandemic, giving students various choices to engage with learning content that aligns with their needs and circumstances. Moreover, it highlights the adoption of innovative teaching methods to engage students in the learning process actively. The transition to online learning also led to the creation of additional online resources for students. Notably, academics chose to maintain these resources even after the pandemic, considering it a 'silver lining' amidst the disruption caused by COVID-19. This indicates a recognition of the value and benefits of these online resources, which offer students continued support and enhanced access to educational materials.

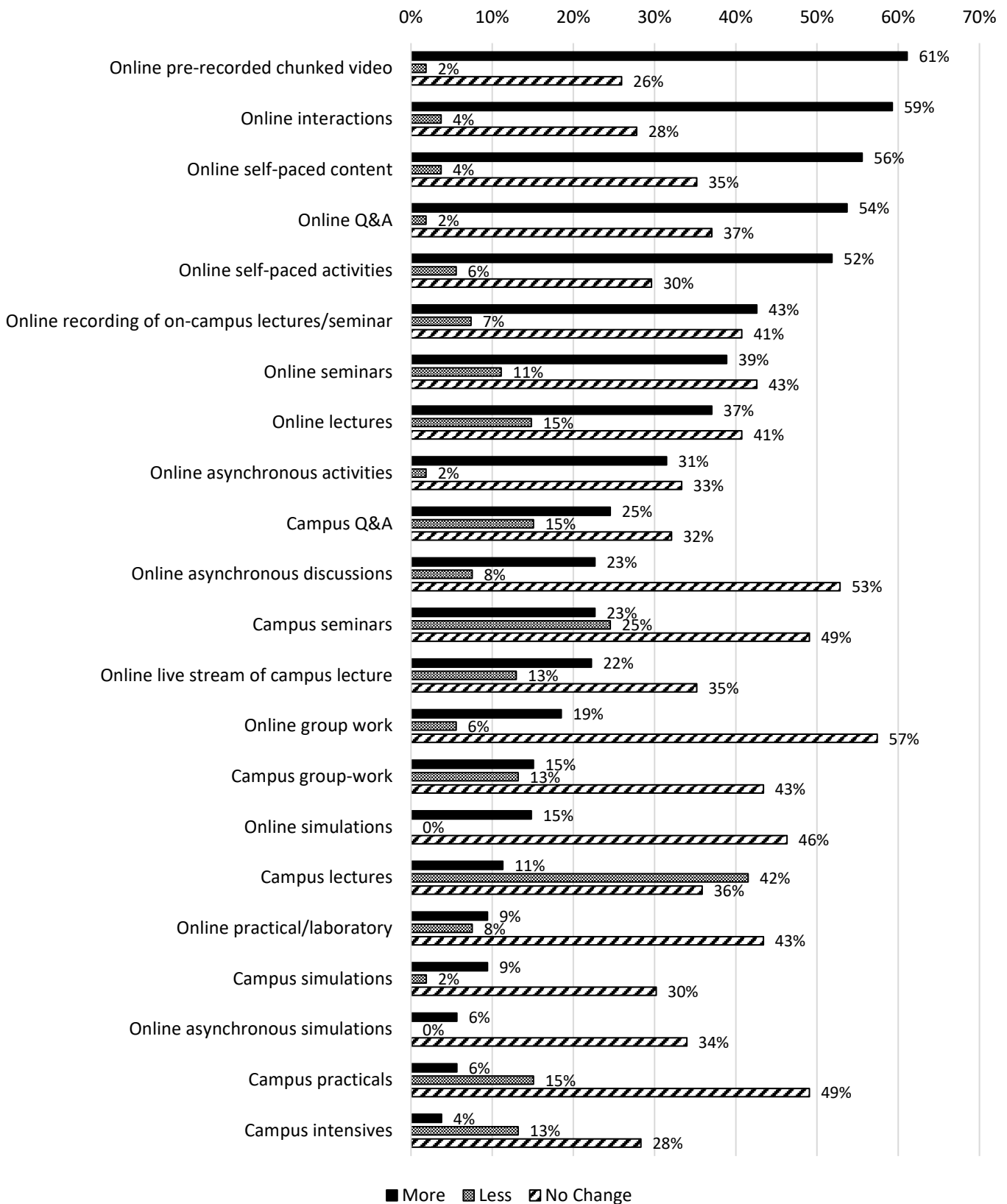
Interestingly, while there is a reported drop in attendance and enrolments to on-campus activities such as seminars, thus impacting the volume (e.g., the number of repeat seminars to accommodate student numbers), the design (e.g., attending one seminar per week) has remained largely unchanged.

This reflected the enhanced level of flexibility provided by academics, which has not removed more traditional options of learning but, instead, added more options. On-campus lectures have been the exception.

¹ Learning activities include scheduled and non-scheduled activities, pre-recorded, live, and recorded live activities, they might be synchronous or asynchronous, online or on-campus.

Figure 1

Change in Learning Activities 2019-2022

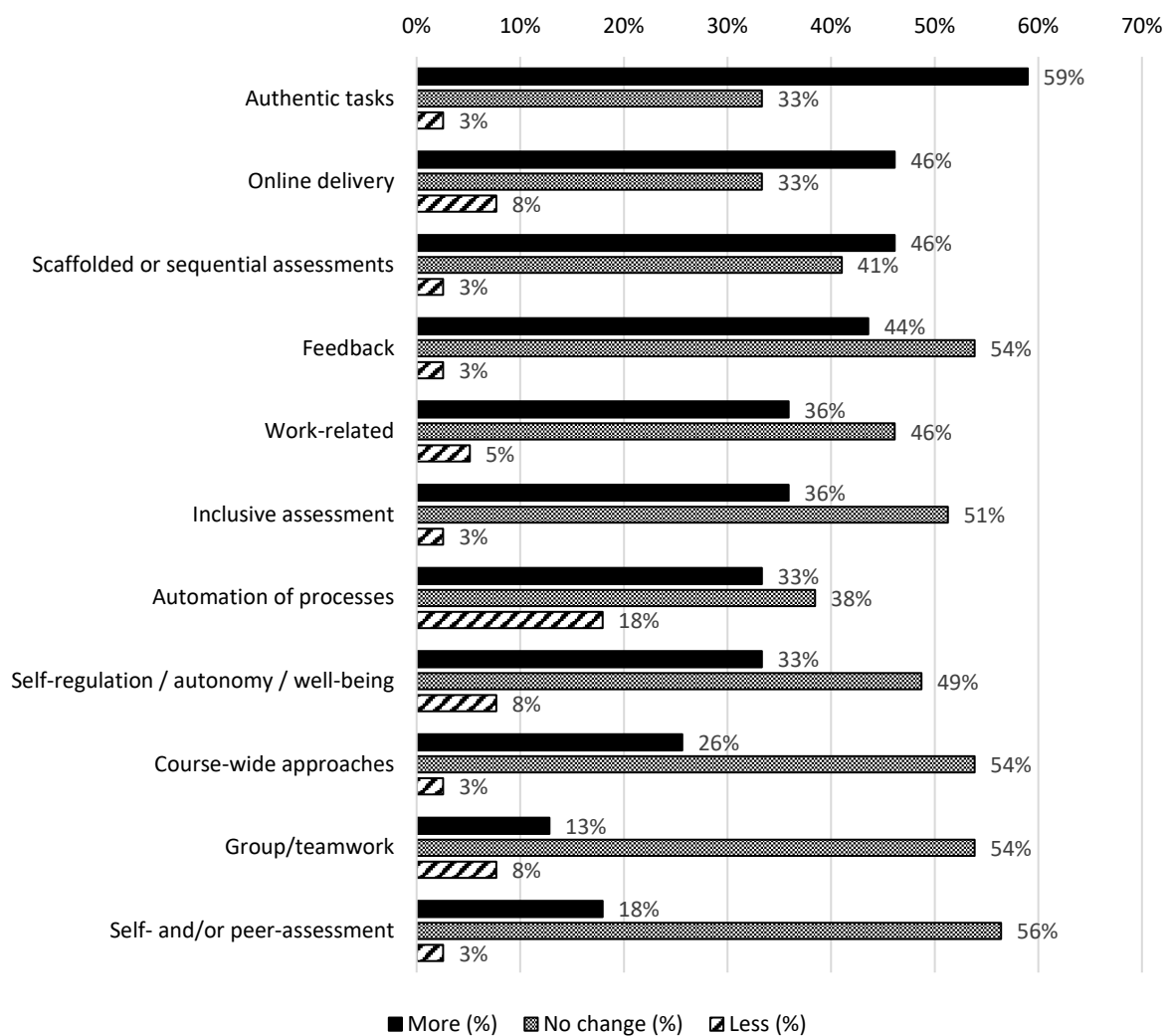


Assessment

Forty-two academics (63%) reported retaining changes in assessment² post-pandemic that differed from 2019 (see Figure 2). There were three areas that academics focused on when they changed their assessments (authentic assessment tasks, scaffolded and sequential assessment and online assessment). In eight areas, assessments stayed about the same in most units between 2019 and 2022/2023. Notably, there weren't any areas where the emphasis decreased, which might underscore the expanding diversity of assessment practices adopted by academics.

Figure 2

Change in assessment from 2019 to 2022/2023



² Assessment changes included a wide variety of changes including in delivery, such as online, changes in focus, such as inclusiveness and interactivity, such as peer assessment.

Key Insights

When comparing what they were doing in 2019 to what they are doing post-pandemic, there were three areas in which academics made the most changes to their assessments.

1. There has been a notable trend towards utilising authentic assessment tasks, aiming to enhance the applicability of assessments in real-world contexts and to make them more meaningful, relevant, and valuable for students.
2. Additionally, there has been a shift towards employing scaffolded and sequential assessment tasks. This approach assists students by tailoring activities to develop their knowledge progressively and offering them ample opportunities to gauge their understanding throughout the trimester.
3. Moreover, the COVID-19 pandemic prompted a transition from traditional face-to-face assessments, such as presentations and in-class tests, to online formats. Respondents have reported that this change yielded several benefits, leading them to maintain online assessments even after the pandemic. These benefits include a reduction in absenteeism and equal treatment for online and on-campus students in terms of the assessment process and submission procedure.

Examinations

Thirty-six academics (54%) said they had an examination³ in their unit.

In 2019, most examinations reported were in the form of invigilated on-campus exams, accounting for 97% of units ($n = 35$). However, post-pandemic, only one clinical assessment remained on-campus and invigilated (3%). Seventeen per cent were still invigilated but were moved online. The remaining 77% of exams were either unsupervised online (44%) or removed entirely from the unit (33%). Overall, there was a near complete removal of on-campus face-to-face examinations and an 83% decrease in the number of invigilated exams.

While 97% of exams in 2019 were at a set time (e.g., 12-2 pm), this was reduced to 39% in 2022/2023, with most units (62%) allowing students to complete the exam anytime within a specific period (e.g., 24 hours).

There were notable changes in exam weightings (percentage of the unit grade attributed to the examination component), from an average of 42% to an average of 29% in 2022/2023, an average decrease of 14% compared to 2019. The decline in exam weightings suggests a shift in the assessment structure of units.

Key Insights

These findings highlight the substantial shift in examination methods prompted by the pandemic and encouraged and supported by the university. There is a clear move away from traditional, on-campus, supervised exams.

The decline in exam weightings suggests a shift in the assessment structure of units. This change likely reflects the adoption of alternative assessment methods and a re-evaluation of the relative importance of exams in the overall grading scheme.

³ Changes to examinations may include location (online or on-campus) supervised (online, on-campus, no supervision) or unit grade weighting of the examination (%).

Factors that influenced change

Figure 3 shows the influence of factors on learning activities, assessments and examinations based on the percentage of combined 'very influential' and 'extremely influential' responses.

- At the individual level, a desire to innovate, integrity concerns and reflective practice all appeared to have had a notable influence. A desire to innovation drove learning activities and assessment; integrity concerns were the second biggest influence on exams after organisational instructions, and reflective practice was important when designing learning activities.
- At the microsystem level, local leadership played a critical role, indicating that discipline- and Faculty-level decisions are important in facilitating staff change. Academics were grateful for local leadership.
- At the mesosystem level, time, workload pressures, and organisational instructions - ranked highest, suggesting that the most influential factors maintaining and driving change are those from the University level. It shows that the university's strategies and workload allocation significantly impacted academic work. The comments provided by the academics about workload indicate two contrasting situations: being constrained due to lack of time and being able to innovate when given extra workload hours for development.
- At the exosystem level, COVID-related issues, such as staff shortages and illnesses that impact staff and student's ability to get on campus, were significant and paramount in maintaining changes and to re-focus on learning and teaching design.

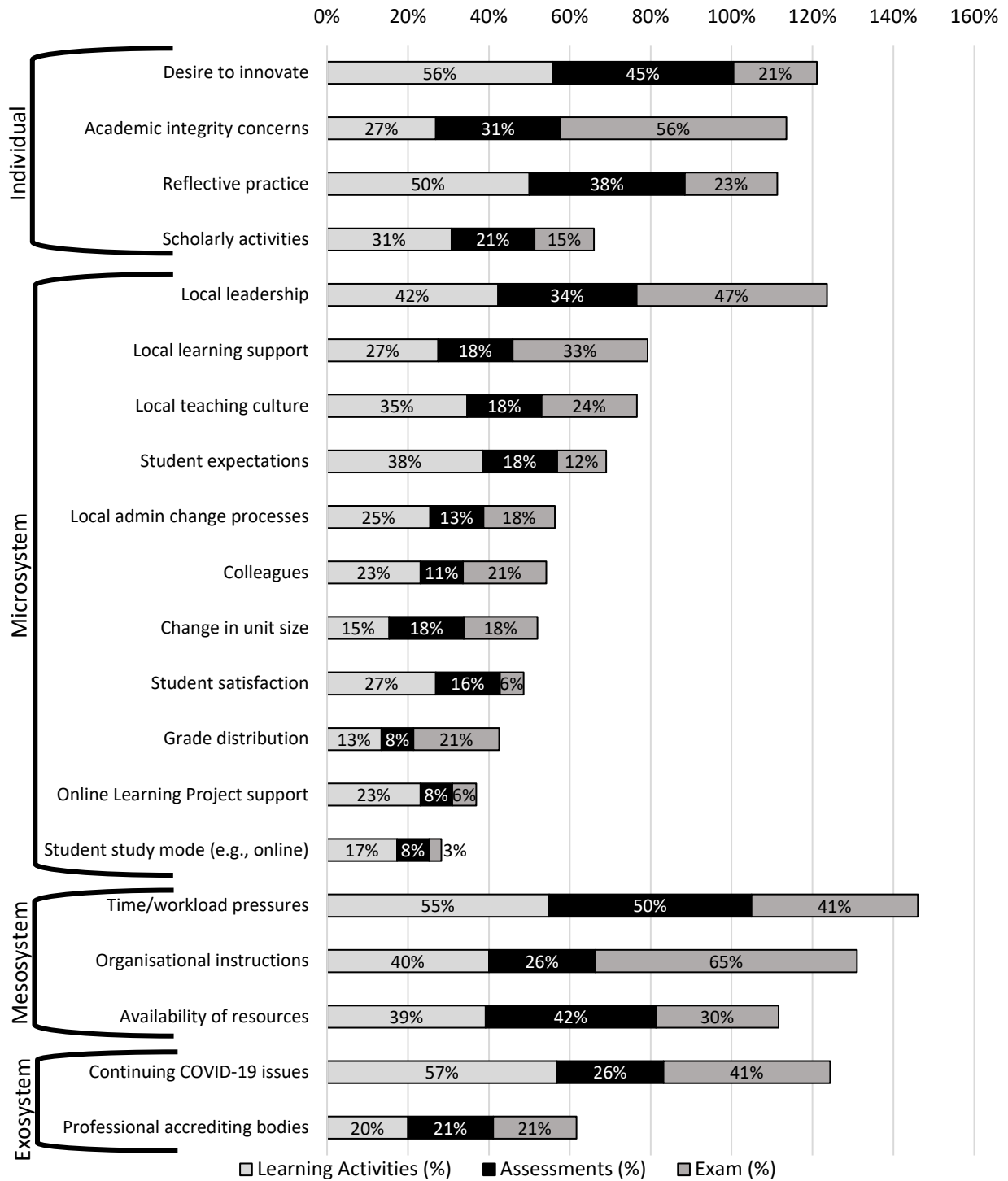
KEY INSIGHTS

The findings suggest that the ongoing changes in university teaching, assessment methods and examinations post-pandemic are mostly influenced by internal systemic pressures (such as time/workload and organisational instructions), external factors (COVID-19 issues), and individual factors (desire to innovate) and discipline factors (local leadership).

General Linear Modelling revealed that the combination of these factors differs depending on learning activities, assessments, or examinations. For example, while organisational instructions were important for all three areas, they were significantly more influential for examinations than learning activities and assessments. Local leadership, on the other hand, while not the top-ranked factor, was equally important across all changes in teaching practices.

Figure 3

The percentage of influence for learning activities, assessments, and examinations



Percentages represent a combination of very influential and extremely influential responses.

Academics' perceptions of these alterations

Table 1 shows staff perceptions of their changes to learning activities, examinations, and assessments.

In the aftermath of the pandemic, academics were fairly satisfied with the changes they had made to learning activities, examinations, and assessments post-pandemic, generally finding that the changes were sustainable and of value to students.

A repeated measures ANOVA showed that these were generally similar across teaching practices with two significant differences. The magnitude of changes across the board was relatively large but significantly larger for exams. Although not unsatisfied with the exam changes, academics were significantly less satisfied with this than with changes to other assessments and learning activities. In relation to data related to 'value', while the changes made to exams appear to be rated less valuable than the assessments and learning activities, there was found to be no significant difference from either one.

Academics reported that workload was "somewhat" or "much more" in 2022 for changes to learning activities (60%), exams (64.7%) and assessments (48.6%) compared to 2019.

Table 1

Staff perceptions of the changes they made to learning activities, examinations, and assessments.

	Activities (n=51)		Assessment (n= 36-37)		Exams (n= 32-34)	
	M	SD	M	SD	M	SD
Satisfied	7.55	1.54	7.47	1.82	6.44	2.49
Sustainable	6.82	2.01	7.06	1.93	6.37	2.55
Experience (- to +)	6.45	2.19	6.72	1.99	6.38	2.12
Value	6.10	3.16	6.50	3.01	4.78	2.89
Magnitude	6.63	1.81	6.89	1.93	7.71	2.11

Possible range 0-10; Superscript terms for each variable denote significant group differences ($p < .05$).

Student support, motivation and engagement

Academics were asked to compare the amount of student support needed, student motivation and student engagement in learning in 2019 and compare it to 2022/2023.

Student Support

Respondents highlighted a significant rise in the level of support required by students, even more than one year after the pandemic. Noticeably, group-focused support mechanisms, such as the discussion boards, had the least change, with students requiring more personal and private interactions with the staff post-pandemic than pre-pandemic. The greatest increases were for requests to adapt the due dates of assignments (e.g., extensions and special consideration). This pattern may indicate that students prefer more personalised individual support, value relationships with teachers or may feel hesitant about sharing their concerns in a public forum.

Table 2

Changes in the level of student need for support in the unit (2022/2023 compared to 2019)

	Less	Same	More
Assessment support	1.6%	33.3%	65.1%
Support via online discussion boards	6.3%	52.4%	36.5%
Support via email	6.3%	38.1%	55.6%
Assessment due date extension (maximum 14 days)	3.2%	15.9%	81.0%
Additional assessment due date extension (special consideration)	4.8%	17.5%	77.8%
Face-to-face, Zoom (or alike), or phone meetings with students	6.3%	28.6%	63.5%

It may not add up to 100% if N/A was selected. n = 65. Grey highlighting indicates the common response.

Student motivation

Coupled with the need for more support, the majority of academics noted a drop in overall student motivation from 2019 to 2022/2023. The survey data highlighted that academics considered there to be a significant decline in students' ability to self-regulate their own learning, act independently, effectively manage their negative emotions, and self-direct their learning (see Table 3). This decline might underline the challenges presented by the shift to online and remote learning during the pandemic, which appears to have had lasting impacts on students' self-regulatory abilities and their sense of agency over their learning. Other factors, such as the cost-of-living crisis, could be causing students to work more, while the diminished sense of community and co-regulation online could be contributing to their disengagement.

Table 3

Changes in the level of student motivation in the unit (2022/2023 compared to 2019)

	Less	Same	More
Acting independently (autonomy)	58.1%	24.2%	16.1%
Managing their learning (self-regulated learning)	59.7%	25.8%	14.5%
Self-directing their learning	48.4%	30.6%	19.3%
Extrinsic motivation to learn (e.g., to get a good grade)	29.0%	50%	19.3%
Intrinsic motivation (e.g., learning for the joy of learning)	33.9%	46.8%	17.7%
Confidence in learning (e.g., capability to be successful).	45.2%	40.3%	12.9%
Managing their negative emotions (emotional regulation)	56.4%	32.3%	8.1%
Students who see themselves as higher-education consumers	9.7%	48.4%	30.7%

It may not add up to 100% if N/A was selected. N = 63. Grey highlighting indicates the common response.

Student engagement

Academics were asked about student engagement, which was also seen to have decreased post-pandemic compared to 2019 (see Table 4). The most noticeable difference was the reduction in students attending scheduled on-campus and online learning activities, such as seminars. Unsurprisingly, given the increased number of extensions and special consideration requests, there was a decrease in students submitting assessments on time. Students were also interacting with each other less online, but the majority of academics reported that they were still accessing online resources and interacting with other students when they were on campus at the same rate as they did pre-pandemic.

Table 4

Changes in the level of student engagement (2022/2023 compared to 2019)

	Less	Same	More
Attending scheduled online learning activities	50.8%	28.6%	17.5%
Attending scheduled on-campus learning activities	66.6%	17.5%	9.6%
Interacting with others in online learning activities	49.2%	20.6%	23.8%
Interacting with others in on-campus learning activities	33.3%	42.9%	15.9%
Interacting with others on the discussion boards	41.2%	36.5%	17.5%
Submitting assessments on time	63.5%	27.0%	7.9%
Accessing learning resources on the learning management system	31.7%	42.9%	17.5%
Accessing the learning management system	26.9%	52.4%	12.7%

It may not add up to 100% if N/A was selected. n = 63

Intentions to continue with changes

The data, illustrated in Figure 4, shows a strong consensus among academics on their confidence and willingness to continue with their new changes. Additionally, many respondents were not inclined to revert to their pre-pandemic teaching methods from 2019, nor were they hesitant to adopt further changes.

Table five shows the scales of attitude, subjective norms, perceived control, and intention derived from the questions in Figure 4. On average, academics demonstrated positive attitudes toward the implemented changes. They believed their colleagues and other key stakeholders also held positive views regarding the changes. Furthermore, academics expressed confidence in having the necessary resources, skills, and support to sustain the changes successfully. Additionally, they displayed a high intention to maintain the implemented changes in the long run.

Table 5

Mean, standard deviation, minimum and maximum for subscales

	Min	Max	Mean	Std. Deviation
Attitude	2.00	5.00	4.06	0.78
Subjective Norm	2.33	4.67	3.60	0.47
Perceived control	1.60	5.00	3.74	0.78
Intention	2.25	5.00	3.81	0.71

Key Insights

Broadbent et al., (*manuscript under review*) applied the Theory of Planned Behaviour to understand the factors influencing academic intentions to sustain educational changes post-pandemic. Findings revealed that while overall intention to maintain changes was positive, attitudes, subjective norms, and perceived control varied significantly among participants. The model strongly predicted the intention to maintain changes, but attitude stood out as the sole significant unique predictor. This suggests that academics with positive attitudes towards change are more inclined to continue altered teaching practices. The disruption caused by COVID-19 was seen as beneficial to teaching methods and perceived positively by academics, who viewed the changes as enhancing student learning for the long term.

Organisational culture and transformational leadership likely played a critical role in shaping positive attitudes towards change. At Deakin, known for its innovative teaching approaches and distance education, supportive leadership and resources likely bolstered the favourable attitudes of staff towards maintaining educational changes. Therefore, organisational leadership at the university appears to be a key factor in promoting and sustaining change (as supported by Figure 3).

Figure 4

Intentions to continue with changes post-pandemic

