



Supporting University Academics in Proactive Outreach to At-risk Students

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Abstract

This article examines the trialling of an academic support toolkit that aimed to place teaching staff in the initial outreach role to at-risk students studying at a regional Australian university, while ensuring minimum additional workload. Many regional and rural tertiary students, particularly those of mature age with family and work commitments, must study by distance and the support processes available to them should provide equivalent opportunities for success as on-campus students. This article describes one regional Australian university's implementation of a technology solution to enhance the outcomes for regional and rural university students. The technology toolkit developed was focused on providing teaching academics with the key information about student engagement and progress daily to allow them to make informed decisions about student support requirements. Examination of student completion, engagement, and disengagement before and after the toolkit implementation and an analysis of Unit Coordinator surveys indicated the approach was effective, most noticeably due to academic-led early outreach. The implementation of the toolkit also afforded a reduction in the transactional distance between the student and teaching staff.

Keywords: *retention, engagement, outreach, student support, student success*

Introduction

Retention and engagement continue to be significant and growing priorities in universities around the world (Tight, 2019). This has been exemplified in Australia with the Australian Universities Accord (Department of Education, 2024), where a main objective is to significantly increase the participation of under-represented student cohorts. These cohorts include students with historically lower retention and engagement, those from low socio-economic backgrounds, people with disabilities, rural and remote communities, and mature age students (Department of Education, 2024). The Australian Universities Accord continued the Australian Government's focus on under-represented students described by Bradley et al. (2008). Improving engagement in the higher education system is often achieved through making university study more equitable and accessible, especially for these under-represented student cohorts (e.g. Lawrence et al., 2024; Thomas et al., 2021). This involves universities offering comprehensive, efficient and effective student support at-scale.

This paper presents the findings from a pilot study that placed academics as the main participants in early detection of and outreach to students who may be at risk of disengaging with their unit of study. From this point in the article, these students are referred to as at-risk students. The aim of the study was to improve retention and engagement, and greater holistic student support.

Literature Review

Many people in regional and rural settings in Australia who wish to study at the tertiary level. Those of mature age who have family, community and work commitments often undertake that study online. Webb et al. (2024, p. 12) argue that the decision to study by distance also includes factors such as “*symbolic and cultural barriers to participation related to moving away and identity challenges*”. Considering the geographic size of Australia and that about 28% of the population reside in regional and rural areas (Taylor et al., 2025), there is an imperative to provide equitable tertiary opportunities for all people, irrespective of residential location and circumstance to reflect the Australian Government’s long-term commitment in this area (Australian Government Department of Education, 2023; Bradley et al., 2008).

The University of New England, Australia, has specialised in providing distance tertiary education since the 1950s and commenced online delivery in the 1990s. This mode of delivery has ensured that a large percentage of its student cohort come from non-traditional university student backgrounds. The institution has a strong history of positive student feedback for teaching quality, consistently receiving five-star ratings from the Good Universities Guide for overall student experience (The Good Universities Guide, n.d.). Yet the institution faces a substantial challenge, having one of the highest non-completion rates among Australian universities, with a 24.5% attrition rate for students commencing bachelor level studies in 2022 (Australian Government Department of Education, 2023).

The issue of high attrition among non-traditional students accessing tertiary study, particularly during the initial transition has been described in Australia over an extended period. Several affective factors contribute to this situation. Wylie (2005) argued that students’ decisions to terminate their tertiary study were part of a short-term cyclic process and involved poor adjustments in their academic and social self-worth. Attrition, particularly for non-traditional students, is highest during the first six to eight weeks following commencement (Wylie, 2005). Morison and Cowley (2017), in a study investigating attrition with non-traditional students in an Australian tertiary enabling course, argued that interventions to address attrition “*must focus on developing more personal interventions with students as early as possible*” (p. 342). Linden et al. (2023) argue that “*there is a small window of opportunity at the beginning of semester for a university to provide commencing students with timely and targeted support*” (p. 626).

A study at Southern Cross University (Farr-Wharton et al., 2017) investigated how the student-lecturer exchange was associated with student engagement, course satisfaction, achievement and the intention to leave study prior to course completion. It was demonstrated that the level of engagement, course satisfaction and intention to leave university were fully mediated by the nature of the student-lecturer relationship when factors relating to demographics and socio-economic status were controlled. It was argued that, while attrition is often associated with demographic factors, the student-lecturer relationship played an important role in student retention.

Student support in Australian universities is usually provided through two primary areas. Academics provide support through the teaching and learning involved within units of study. Additional requirements are met by professional staff employed to provide support outside the boundary of the teaching and learning context. The work culture at the university level may challenge academics to engage at a level that allows them to meet student’s individual learning needs. Many academics work in an environment where publishing academic work is highly

regarded and rewarded, in preference to that of successful teaching. This situation, often referred to as ‘publish or perish’, was described by Kampourakis (2016), when he stated that *“This is what the phrase ‘publish or perish’ encapsulates. Either you publish like crazy or you are out of the competition. But is publishing all that matters? What about teaching?”* (p. 250). Any solution that attempts to engage academics more fully in the direct support of students needs to ensure that it is highly effective and time efficient and recognised as such by teaching academics. Stone (2017) argues that online teachers play a crucial role in *“building teacher-student and student-student relationships”* (p. 8). She argues that the online teacher must be present and engaged to appropriately connect students with their online learning cohort and that this increases the likelihood of persistence in their study.

One useful technique used in online learning environments to understand the nature of the academic-student relationship is the theory of transactional distance. Moore (1997) argues that transactional distance, composed of the psychological and communication distance between the learner and educator, has a profound impact on the quality of the learning experience and outcomes achieved. Transactional distance has three components. The first is the program structure, which is a measure of the program’s responsiveness to learners’ needs. The second is the instructional dialogue between the educator and student, comprising *“purposeful, bi-directional, constructive communication”* (Roach & Attardi, 2021, p. 859). The final component is learner autonomy, which is the extent of self-management available within the context of the learning environment. In an online learning environment, the educator’s goal is to reduce the transactional distance as much as possible to ensure a high quality of communication is maintained. This is achieved when the instructional dialogue is high and the program structure is low. A highly structured program, where the learning experience is explicitly managed by the program itself, rather than the educator, results in a reduction of the opportunity for interaction between the learner and educator. This results in an increase in the transactional distance.

Transactional distance and student satisfaction have been identified as challenges for online tertiary education. The choice of technology used to facilitate online teaching and learning affects the transactional distance achieved. Thoms and Eryilmaz (2014) demonstrated that the choice of software used to support learning and the interaction between the educator and student was associated with student satisfaction. Wildlich and Bastiaens (2018) reported that for online learning contexts the transaction distance between students and the learning technology *“is the single most important predictor of [student] satisfaction”* (p. 222).

Linden et al. (2023), in a study at a regional university in Australia where online delivery is used, attempted to reduce attrition by a reduction in the program structure in the early transition phase. They updated the institution’s Learning Management System sites to reduce complexity and the cognitive load on students. Support was also provided to Unit Coordinators to assist in the identification of disengaged students. In weeks 3 and 4 of the semester, a list was provided to Unit Coordinators which included contextual information in relation to each student’s learning situation. Disengaged students were identified based on non-submission of a low stakes assessment task and/or nonengagement with the unit Learning Management System site. Identified students were contacted by a support team with a view to supporting the student to reengage with the unit material. Several shortcomings in this approach were described including the work demand on the Unit Coordinator to develop the list of disengaged students, the management and documentation of the communication between the Unit Coordinator and the support team and the high workload involved in contacting and supporting the disengaged students. Considering that the research project involved 191 units with a high proportion of commencing students, the workload involved would have been substantial.

Pilot Study Design

Due to the high rate of attrition at the institution, a project was proposed using technology that would facilitate a reduction in the transactional distance between academic staff and students. The solution to be developed aimed to improve student retention and engagement by supporting academics to understand students at the individual level, with a focus on undertaking proactive outreach to at-risk students. It was hypothesised that this enhanced understanding would facilitate higher quality academic-student relationships, reduce academic-student transactional distance and improve student satisfaction and retention. The research questions that guided the project were:

- What form would a technology solution take that would enhance academic presence in online units?
- What student related information would support academics in engaging more closely with students and allow the identification of students at risk of disengagement with learning?
- How effective was the technology solution in supporting student success?

The intervention required staff to use an additional technological tool in their teaching. Whatever was developed needed to be incorporated into the work practices of academics and support staff with minimal increase in workload and no additional funding requirements. Following consultation with the academic staff involved in the project, the approach used comprised two steps.

Background information about each student was provided to the Unit Coordinator in an Excel spreadsheet. This was updated weekly and included each student's email address, university email address and the alternative private email address provided at the time of enrolment. The key previous engagement data also included in the spreadsheet were:

- Number of unit attempts
- Unit enrolment date
- Whether the student was Higher Education Participants and Partnerships Program identified
- The course the student was enrolled in
- The year the course was commenced
- The trimester the course was commenced
- The number of completed credit points completed successfully to date
- Any advanced standing credit points awarded
- Current course Grade Point Average
- The number of previous successful unit completions
- The number of previous unit failures
- The number of previous unit withdrawals
- The current progress rate
- Any relevant progress flags, for example there were risk several factors, including if the student has been enrolled in their current course for greater than 10 years, whether the student had previous progression issues and whether the current Grade Point Average was less than 4.

The second source of information provided was a weekly email to the Unit Coordinator listing those students in the unit who had either not logged into the Learning Management System, which was important to identify initial engagement issues, and those students who had not logged into the Learning Management System in the previous 10 days. A summary of the current overall enrolment situation in the unit was also provided. Based on this weekly email, students with engagement issues were identified. Unit Coordinators used an email template to initiate contact with the student. This was emailed to both the student's university and personal email addresses. If the email was not successful in establishing contact, an attempt could be made to

contact the student by phone, if the Unit Coordinator considered this appropriate. This approach ensured that a student who may have disengaged from their study was contacted by the Unit Coordinator within a short period. Depending on the outcome of the contact attempt, the Unit Coordinator could then refer the student for additional support to any additional expert support required.

Support was provided to academics in the form of weekly professional development sessions facilitated by the project team, to help in the instances where a student responded to the initial outreach and disclosed further needs. Academics were guided in how to complete a referral to wider university support services. These sessions had guest speakers from different university support services, such as the Indigenous education community, counselling, and accessibility supports. A secondary aim of these sessions was to give academics and support services opportunities to learn more about each other's work and effective ways to collaborate.

The research component of the pilot project utilised a case study design with the case limited to units from within the Faculty of Arts, Social Sciences and Education. The study used mixed methods data collection (Depoy & Gitlin, 1998). Mixed methods data collection is recommended in case study research to allow for enhanced depth of analysis and understanding of the case being investigated (Creswell & Plano Clark, 2018; Yin, 2018). In this study, an exploratory sequential design was used with an initial analysis of student unit outcomes being completed followed by an analysis of the qualitative data available from Unit Coordinators (Creswell & Plano Clark, 2018). This allowed for the investigation of potential reasons why the intervention influenced student outcomes. Quantitative data were obtained from the university student records system and analysed using inferential tests of difference. Qualitative data were obtained from an online survey completed by Unit Coordinators. This was analysed using interpretational analysis, where the qualitative data was coded and themes were identified that summarized the data (Borg et al., 2007).

Ethics

The analysis was undertaken with University of New England Human Research Ethics Approval (no. HE23-134).

Participants and Data Collection

The project initially identified 15 units where the intervention would be used in trimester 2, 2021. The university administration system was interrogated and the results for students in these trimesters were identified and downloaded. Four units were removed from the analysis either because the enrolment in either trimester was less than 15 students, or because there had been a substantial change in the enrolment between the target trimesters, which was set at $\pm 30\%$ or greater. The data analysis involved two comparisons. The first compared the outcomes for trimester 2, 2020 to trimester 2, 2021 for the 11 units that met the criteria for inclusion. The second compared the outcomes for the eight first year units involved in the trial in trimester 2, 2021 with all other first year units in the same trimester.

Table 1 summarises the enrolment for the units included in the data analysis for 2020 compared to 2021 illustrating the range of disciplines included and the consistency of enrolment across trimester 2 2020 and trimester 2 2021. The unit name has been deidentified to show only the discipline and year level of the unit.

Table 1: Unit Enrolment Comparison—Trimester 2, 2020 to Trimester 2, 2021

Number	Unit	Year Level	2020	2021	% Enrolment Change
1	Early Childhood Education	1	50	37	-26.0
2	Literacy Education 1	1	85	105	23.5
3	Literacy Education 2	3	170	195	14.7
4	STEM education	1	134	162	20.9
5	Health education 1	3	27	29	7.4
6	Health education 2	3	77	71	-7.8
7	Languages	1	85	81	-4.7
8	Colonialism	1	42	33	-21.4
9	Music	1	61	68	11.5
10	Linguistics 1	1	53	43	-18.9
11	Linguistics 2	1	66	58	-12.1

The data comparison for trimester 2, 2021 involved a total of 625 students in the intervention group, with 2117 students in the control group. At the conclusion of the project, each Unit Coordinator was requested to respond to a survey available through Qualtrics. Ten Unit Coordinators responded to the survey. The prompts in the survey collected mainly qualitative data in relation to the participants' experience using the new intervention to engage with students.

Findings

Unit Outcomes Analysis

Analysis of the unit enrolment and grade data was completed using SPSS version 30. Student grades were sorted into four categories. Students who had achieved any passing grade were categorised as PASSED, while students who had withdrawn their enrolment in the unit at any time were categorised as WITHDRAWN. Students who had completed all assessment in the unit, but had not achieved the required passing mark, were categorised as FAIL. Those who had not completed all required assessment tasks and were still enrolled at the end of the trimester were categorised as INCOMPLETE. The initial analysis of the differences in the outcomes for the units was completed using a chi-squared test, with the trimester 2, 2020 results acting as the control and the trimester 2, 2021 results being the treatment group ($\chi^2(3)=26.836, p<0.001$). A statistically significant result was identified, indicating significant differences in group proportions for one or more of the categories. The chi-squared tests for both analyses included a post hoc Z-test with Bonferroni correction to identify significant differences within the categories. Table 2 summarises the counts and percentages.

Table 2: Contingency Table for Student Group Versus Outcome, Trimester 2, 2020 Compared to Trimester 2, 2021

Category	2020 T2	2021 T2	Total	% Change
PASSED	618 (46.3%)	718 (53.7%)	1336	+7.4*
WITHDRAWN	178 (48.0%)	193 (52.0%)	371	+4
FAIL	18 (58.1%)	13 (41.9%)	31	-16.2
FAIL INCOMPLETE	88 (69.8%)	38 (30.2%)	126	-39.6*

* Significant at the $p < 0.05$ level

The chi-squared test compared the outcomes for students in trimester 2, 2021 based on their involvement in the intervention also identified a statistically significant difference ($\chi^2(3)=16.926, p < 0.001$). Table 3 summarises the counts and percentages for each group.

Table 3: Contingency Table for Student Group Versus Outcome, Trimester 2, 2021

Category	Intervention	Control	Total
PASSED	396 (63.7%)	1176 (55.7%)	1572*
WITHDRAWN	184 (29.4%)	681 (32.2%)	865
FAIL	9 (1.4%)	44 (2.1%)	54
FAIL INCOMPLETE	36 (5.8%)	212 (10.0%)	248*

* Significant at the $p < 0.05$ level

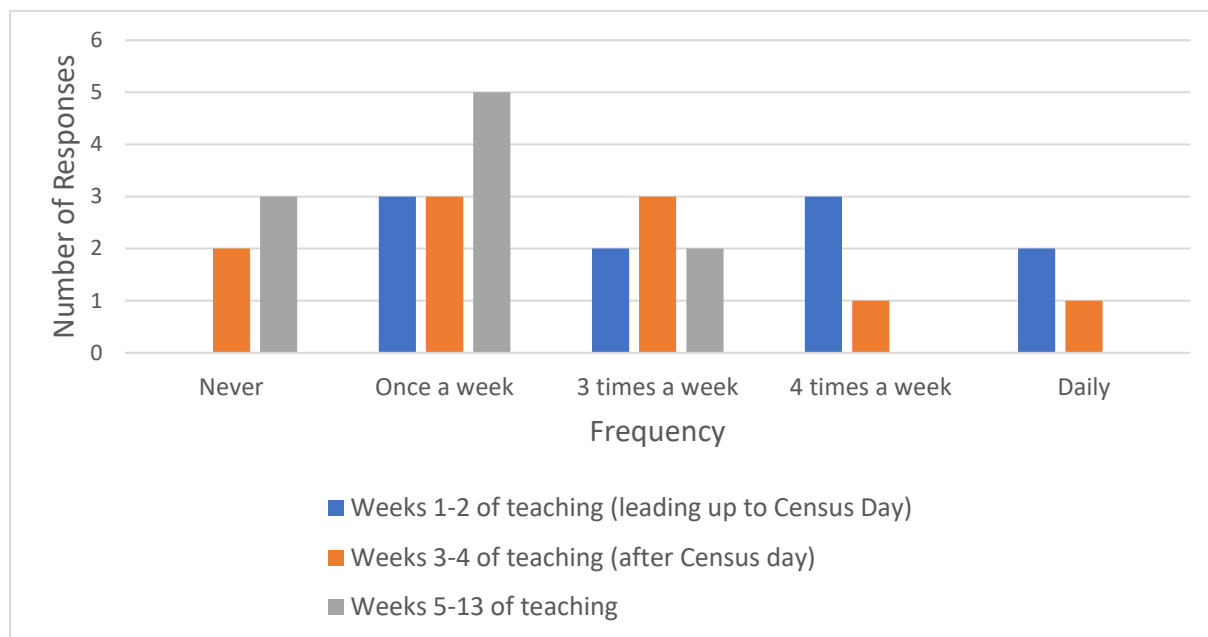
Significant differences were reported for both comparisons for the PASS and FAIL INCOMPLETE categories, but not for the WITHDRAWN or FAIL categories. In both comparisons, there was a significantly higher number of students in the PASSED category and a significantly lower number of students in the FAIL INCOMPLETE category for units that utilised the intervention. It should be noted that a percentage reduction was recorded for the FAIL group in each comparison, however the relatively small number of students in this category did not result in a statistically significant difference.

Survey Analysis

Ten Unit Coordinators responded to the prompt asking if the unit dashboard provided them with all the information they required. Two indicated that too much information was provided, seven that it was the right amount, while one stated that insufficient information was made available. When asked how important it was for them to have access to the unit dashboard information in the future, five indicated it was extremely important, four that it was very important and one that it was moderately important.

The reported frequency of use of the dashboard is shown in Figure 1.

Figure 1: Response to: ‘How Often did you Look at Your Unit Dashboard at Different Points Throughout the Trimester of Teaching?’ (n=10)



It is evident that Unit Coordinators used the unit dashboard frequently during the first two weeks of the trimester, with eight accessing the data at least three times a week. The continuing usefulness of the dashboard is illustrated with seven Coordinators using the dashboard on at least a weekly basis between weeks five and 13. This suggests that student engagement information is useful to Unit Coordinators throughout the trimester and the data should be available on a continuous basis, rather than only during the initial transition.

The usefulness of each of the components of the student's information was rated for importance using a scale from a low of 0 = Not useful to a high of 5 = Extremely useful. A summary of the results is shown in Table 4. The responses have been ordered by the mean result.

These ratings indicate that Unit Coordinators rate most highly alternative options for contacting students and their progression in terms of previous attempts at the current unit and more broadly within their course of study. These options provide Unit Coordinators with background on a student's potential for success in the unit and the means by which contact can be initiated by several different means if required. This was supported by comments made in relation to the ratings for this prompt. For example:

It was extremely useful to be able to get contact details, but also a picture of the student's study profile. It was of great significance.

It was great to have the dashboard, so I could access the details to contact them. It also helps to learn about students and level of their progress.

The dashboard was a significant resource. While it did not affect the way that I interact with or support every single student I teach, it make me aware of details for a number of students which I could not have known otherwise to do with their history and individual profile... It greatly reduced my workload around investigation and monitoring of students and in communicating with student by having access to their emails and phone numbers.

Table 4: Response to: ‘How Useful did you Find Each Part of the Students’ Information in the Unit Dashboard?’ (n=10)

Prompt	Minimum	Maximum	Mean (\bar{X})
Alternate email address	5	5	5
Number of previous attempts at your unit	4	5	4.78
Course unit withdrawals	3	5	4.50
Course unit fails	3	5	4.50
Mobile phone number	3	5	4.44
Course unit completions	2	5	4.17
Enrolled course	0.5	5	4.22
Progress flags	1	5	4.17
Unit enrolment date	0.5	5	3.78
Course complete Credit Points	0.5	5	3.56
Study mode (On campus/Online)	0.5	5	3.56
Year student started course	0.5	5	3.50
Current course progress rate	0.5	5	3.44
Current course GPS	0.5	5	3.44
Study rate (Full time/Part time)	0.5	5	3.44
Trimester student started course	0.5	5	3.06
Course Advanced Standing	0.5	5	2.83

Having an alternative personal student contact method to use, in conjunction with their university email, was identified in other Unit Coordinator comments.

I got a much higher/faster response rate by emailing student's personal email and giving them a call. This was very useful in dealing with time-critical issues around withdrawal deadlines and assessment submission.

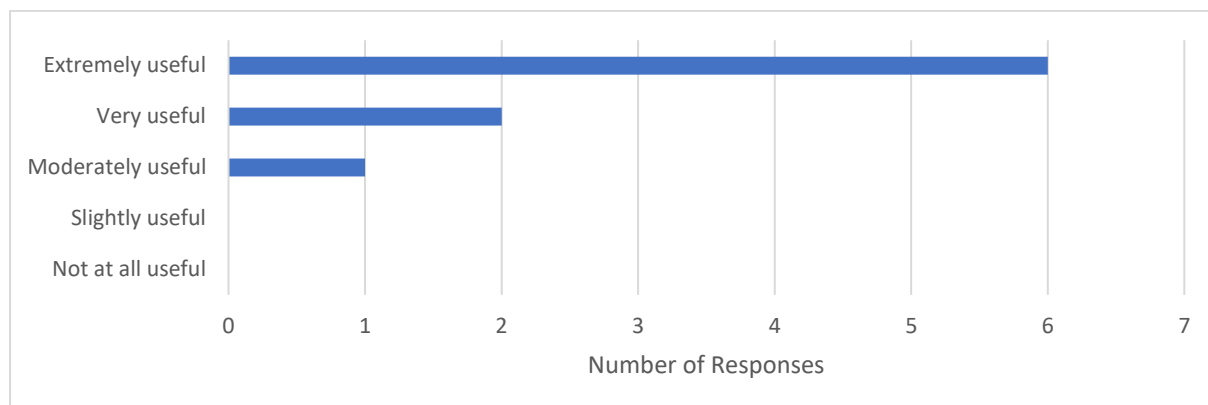
One student had enrolled in the unit 4 times. I used her contact details from the dashboard to access her phone number. This student suffers from anxiety/depression & PTSD as a result of domestic violence. We stayed in regular phone contact.

Calling a student [by phone] to submit the assessment, as I noticed no submission of the assessment in Moodle page.

These comments illustrate the importance of having multiple contact methods for students. The University mandates that students are only allowed to communicate with staff using their university email. Though the long-term practice of staff has been to use the student’s university email to initiate contact, it appears essential that contact using personal emails and phone numbers is required.

One key aspect of the intervention that was considered of importance to student retention was the early identification of students who may be at risk. Most Unit Coordinators found the notifications of student activity in the unit Learning Management System extremely useful. The responses are summarised in Figure 2.

Figure 2: Response to: How Useful to you Were the Notifications in Helping Reach out to Students who Appear to be Disengaged?



Unit Coordinators reported several specific cases where the notification system played an essential role in their initiation of support for students.

I was able to have more specific and frequent communication with students from the beginning regarding significant dates, which I think encouraged good reflection about whether to stay in the unit this time around. I was also more on top of students who didn't complete initial assessments, and ended up having to impose very few late submission penalties in the unit overall. This is actually resulting in the grade pattern going up a few points I think.

Once I sent an email to the student that was inactive and I found out about her difficult time, so I could arrange an individual tutorial to get her to complete the unit.

Many but not all students then acted following me reaching out e.g. responded to my email and were more likely to talk to me and reach out for help in the future or logged onto Moodle independently and continued with their study.

One student towards the end of trimester had stopped logging in. This student had been VERY active and was up to date with all assessments. I would not have noticed that he was no longer logging in because he wasn't on my 'radar' as a student to monitor however this trigger showed me that he had suddenly stopped checking Moodle and sure enough after emailing him he had separated from his partner and was not able to continue with his study regularly. I would not have likely noticed this until he had not submitted an assessment, so it was caught earlier.

These comments highlight the reduction in transactional distance between the academic and student through communication that is more frequent and specific to students' circumstances. The capacity for the academic to rapidly identify changes in the pattern of access to the Learning Management System at the individual student level is also described, allowing for appropriate support to be provided in a timelier manner.

Discussion

Students from regional and remote Australia are challenged to engage successfully with tertiary study, particularly those who study by distance. Universities that cater to the needs of these students must be committed to and provide a teaching and learning environment that meets the support needs of these regional and remote students and maximises their success through early intervention. This was emphasised by Mathews et al. (2018) in their assessment of university support services for regional and remote students transitioning into tertiary education.

The intervention described here targets the often-ignored area of the university lecturer-student relationship (Tormey, 2021). The use of the intervention was associated with statistically significant and beneficial shifts in grade outcomes. Specifically, students in the PASS category—those who had successfully completed a unit in which the intervention was employed—increased by 7.4% compared with the same units in the previous year when the intervention was not used. Students in the FAIL INCOMPLETE category decreased by 39.6%. These trends were supported by the comparisons made between the intervention and control groupings.

This result suggests that the early identification of a student at risk of disengagement and the subsequent actions taken to enhance engagement between the student, Unit Coordinator and support services have supported students to reengage with their study. It has also provided improved grade outcomes and an increased pass rate.

These statistically significant improvements were accompanied by qualitative evidence from Unit Coordinators that indicated that the intervention provided them with important background information on their students. This information supported them in understanding their students better and engaging with them in a way that students' needs were better supported.

It was hypothesised that a reduction in the transactional distance (Roach & Attardi, 2021) using the technological intervention would improve the grade outcomes for the students and reduce attrition. This hypothesis was well supported in this study. Unit Coordinators reported an improvement in their understanding of the students' individual needs and in their capacity to better support those needs. The intervention has supported an increase in the frequency of instructional dialogue that is purposeful, bi-directional and constructive (Roach & Attardi, 2021).

Research questions 2 and 3 relating to the type of information that would support academics to engage more closely with their students and the effectiveness of the technology solution in supporting student success, appear to have been well addressed in this study. The background and current engagement data provided to Unit Coordinators was well received and they described a range of benefits that arose from its use. Student outcomes at the unit level have improved significantly. However, the form of the technology solution which involved the use of Excel spreadsheets suffered similar issues to those described by Linden et al. (2023). Unit Coordinators did not report any substantial challenges using the spreadsheets with no adverse workload comments made. However, the authors of this article who were involved in producing them experienced a substantial workload due to the manual approach involved. For this strategy to be viable in the long term, a solution that provided online access and with automated data access would be required. The process of updating the system to provide this level of access is ongoing.

Limitations

The quantitative analysis included 11 units with a comparison made between two trimesters. While this involved many students, with about 1,000 students enrolled in each of the control and intervention groups, it is a small sample size compared to the total number of units. While the findings in this study supported the wider implementation of the intervention more broadly across the university, additional research is required with a larger evidence base.

One limitation that must be considered is the influence of the COVID-19 epidemic. This was controlled for as much as possible in the 2020 versus 2021 comparison by focussing on units without a substantial change in enrolments. The second comparison of the control group with other units from within 2021 only, further controlled for this potential influence.

A second limitation in the design of the intervention centred on the referral process where an at-risk student was referred to the specialist support services available in the university. The referral was done using an informal approach and was usually done with an email from the Unit

Coordinator to the specialist support area. Following referral, there was no process to support communication between the parties involved. The institution provides several different support services which are located and staffed in units that do not necessarily have direct lines of communication, either with each other or the teaching staff. It was also the case that, once a Unit Coordinator referred a student to a support service, there was no communication process established within the project to allow ongoing communication between the Unit Coordinator and support personnel to support a coordinated approach. A further complication arose because email communication did not allow for the effective ongoing transfer of information between the teaching and support staff. A central referral system included in the technological intervention which is accessible to relevant personnel across the institution appears appropriate, ensuring that an appropriate record is kept of the support provided. The requirements of the recent Support for Students Policy (<https://www.education.gov.au/support-students-policy>) mandated by the Australian Government for universities would also support this approach.

The final limitation is the relatively small number of responses available from Unit Coordinators, which limits the depth of the study. Following successful completion of the pilot project, an ongoing project, titled the Atrium project, was implemented across the university which will allow for an in-depth and long-term data collection and analysis to be completed. .

Conclusion

This pilot study sought to gauge the impact of academics proactively contacting at-risk students studying at a regional Australian university using a technological solution, with the aim of reducing the transactional distance between the student and teaching staff. It was hypothesised that this would improve student retention and engagement at the unit level. The data analysis for the trial, confirmed an increase in the successful completion of the unit by students and a corresponding reduction in disengagement and subsequent withdrawal. The success of this pilot study has led to a major scaling up of the approach and the development of a web-based application, called Atrium, to be used internally by all academics at the institution, allowing data-informed outreach to at-risk students and referrals to support services.

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