

Practical Strategies to Support Students in Large Courses: How Do We Encourage Students to Ask for Help? *A Practice Report*

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Abstract

It is impractical for academics to individually support students' needs when teaching large cohorts. We describe scalable and sustainable approaches using the Student Relationship Engagement System (SRES) that were developed iteratively over four semesters, on-campus and online, with the aim to promote two-way communication between students and academics in two large second-year courses. We delivered timely, personalised communication to students and simplified processes to encourage students to contact us for help, enabling us to gain insight into students' needs. To evaluate effectiveness (uptake and student perceptions), we analysed usage data and student feedback on the SRES and student evaluation surveys. There was high uptake from students, including email views from students who were identified to have low engagement, and students requesting to reschedule classes. Responses from students to personalised communications and online dashboards have been mostly positive. This practice report describes practical approaches that support students while reducing the administrative burden on academic staff, particularly in large courses. Furthermore, these can be efficiently reproduced across courses and semesters, on-campus and online.

Keywords: Large courses; student support; student wellbeing; educational technologies

Introduction

Building Positive Relationships

A sense of belonging is important for student learning and wellbeing. This includes the connections formed with peers and academics, and their feelings of belonging in their university and course (Felten & Lambert, 2020; Kahu et al., 2022). Positive relationships between students and academics have been associated with improved grades and confidence in challenging subjects (Micari & Pazos, 2012), as well as improved student wellbeing (Eloff et al., 2023), motivation (Niemiec & Ryan, 2009) and retention (Braxton et al., 1995; O'Keeffe, 2013). However, increases in student numbers and academic workloads make it challenging to build meaningful relationships between students and academics, identify students who need support, and provide personalised support (Kinman & Jones, 2003). This places the responsibility on students to recognise that they need help and proactively seek this from teaching staff, which can be difficult for students who may be afraid to approach academics (Karabenick, 2003).

Improving the relationship between students and academics can encourage students to seek help and improve opportunities for student learning (Micari & Pazos, 2012). Using data to send personalised communications and initiate conversations with students have been previously described in different contexts. Timely reminders for disengaged students to access online resources are appreciated by students to varying degrees in different subjects (Lawrence et al., 2019; Lewis et al., 2021) and have been shown to improve engagement (Lawrence et al., 2021). Personalised communication can remind students of



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assessments and provide feedback, such as encouragement or suggestions for additional learning resources, which again have variable effects on student satisfaction (Dart & Spratt, 2021; Lewis et al., 2021). Supporting students to address their individual needs through appropriate accommodations may also be helpful for developing their motivation (Niemiec & Ryan, 2009). These studies highlight the importance of considering students as individuals and learning how to deliver personalised experiences at scale to support the diversity of students that we work with.

Intervention

The effectiveness of targeted emails and personalised communication to students on student engagement and performance have been described previously (Brown et al., 2022; Dart & Spratt, 2021; Lawrence et al., 2019; Lawrence et al., 2021; Lewis et al., 2021; Reynolds et al., 2024), as well as supplementing learning management systems (LMS) with additional opportunities for communication such as Discord and Teams (Heinrich et al., 2022), and the need to help students access support (Stone & O'Shea, 2019). However, practical approaches to actively encourage students to seek help from teaching staff in large courses, while remaining manageable for academics have not been described.

We describe approaches to facilitate two-way communication between students and ourselves in two large, second-year Biochemistry and Molecular Biology (BCMB) and Genetics and Genomics (GEGE) courses (~750 and ~350 students each semester, respectively) over a two-year period. We have experienced first-hand the challenges of supporting students in these large cohorts in a personalised way, which academics coordinating large courses would similarly experience.

We delivered personalised communication to students throughout semester and embedded systems in the LMS for students to seek help. These included requests to reschedule to other classes and assessment extensions, as they were commonly needed and potential sources of stress. Our goal was to communicate to students that they could ask for these accommodations, simplify processes to do so, and empower students to proactively seek help, particularly those who would otherwise be unaware or find it difficult to ask.

Methods

Course Information

We implemented this in two large second-year courses over a two-year period, Genetics and Genomics in semester 2 2021 and 2022 and Biochemistry and Molecular Biology in semester 1 2022 and 2023 (Table 1).

Table 1Information About the Courses Included in this Practice Report, the Mode of Delivery and Number of Students Enrolled at the Time of Data Collection

Course	Year	Delivery	Students enrolled
Genetics and Genomics	2021	Online	340
	2022	Mixed	358
Biochemistry and Molecular Biology	2022	Mixed	739
	2023	Mixed	745

Implementing Communication Systems

The Student Relationship Engagement System (SRES) is a freely available tool that integrates with the LMS so that student lists, activity in the LMS, details about assessment submissions, marks, feedback, etc., can be obtained and presented as a table (Liu et al., 2017). Non-LMS data, such as whether students have created their electronic lab notebooks, can be uploaded as spreadsheets using unique identifiers, such as student identification or emails to match to individuals.

Any of these data can be used to personalise communication, using preferred names and including specific information to students who meet the set conditions. For example, data such as attendance and activity in the LMS can be set as conditions to selectively email students with early signs of disengagement (students who have not logged into the LMS at all, spent less than or equal to 100 minutes in the LMS, or have not created an electronic lab notebook). The relevant students could be reminded that course information can be found on the LMS, or to create their electronic lab notebooks, as required.

Personalised data can also be presented as "dashboards" on pages within the LMS so that students only see relevant information, for example, group allocations, assessment marks and feedback.

Finally, fields can be created that enable students to enter data to be captured in the SRES, such as requests for rescheduled classes or extensions, or logging attendance. This enabled students to submit requests to academics that were automatically recorded in SRES. These appear as online forms within the LMS, where students enter all the necessary information required for the academic to action. We informed students that submitting the form would trigger an automatic email to the academic, and students received a confirmation email summarising their request when they submitted. These incoming emails were organised into folders in Outlook using Rules to ensure they would not be overlooked, and all students received a timely reply.

Specific software such as SRES is not necessary to achieve these interventions. Most LMSs include integrated tools that allow personalised communication to be sent to specific groups of students based on their performance or engagement within a course. For example, students that have completed a specific module, not submitted an assignment or achieved a mark within a specific range for an assessment task.

Data Collection and Analysis

Processes were conducted in accordance with the University's Human Ethics protocol "Evaluating student perceptions on approaches to encourage positive relationships in large units of study. Project Identifier: 2023/HE000045."

We obtained usage data from SRES, which records data about student access (number of students viewing, total numbers of views, feedback) and submissions. All students could voluntarily and anonymously provide feedback in SRES throughout the semester about whether the email or page was helpful, and written comments to substantiate the vote. Students could also voluntarily respond to student evaluation surveys for each of their enrolled courses at the end of the semester through Likert surveys and written responses about the best aspects and aspects that most need improvement. We used these surveys as we were interested in the experiences of students in the course overall and what they chose to highlight in their feedback.

Results

Students Engaged with Personalised Communication

Genetics and Genomics was delivered online in 2021 due to (COVID-19) lockdowns so students' interactions with peers and teaching staff were limited to online communication such as video conferencing and written messages. We emailed all 360 students enrolled in week 3 to remind them to contact us if they needed support and encouraged them to use the discussion board to discuss class content with peers. We specifically reminded students to create their online lab notebooks if they had not already done so, and to use the LMS to access course material if the analytics suggested low engagement (spent less than one hour viewing the LMS or had fewer than 50 page views). At least 59% of students opened this message at least once (not all opens were recorded), with three different students indicating that the email was helpful.

For the following semesters, we continued to send emails early in semester but only to students who were showing low engagement. Within this group of potentially disengaged students who were contacted via email, the percentage of recipients who opened the message at least once ranged from 46% to 70% (Table 2).

 Table 2

 Email Views from Students

Course		Emails sent (% of cohort)		Emails opened (% of sent)	
2021 Genetics and Genomics	360	(105.9%)	215	(59.7%)	
2022 Biochemistry and Molecular Biology	92	(12.4%)	42	(45.7%)	
2022 Genetics and Genomics	28	(7.8%)	16	(57.1%)	
2023 Biochemistry and Molecular Biology	30	(4%)	21	(70%)	

Notes: Emails from 2022 onward were targeted only to students showing early signs of disengagement (students who have not logged into the LMS at all, spent less than or equal to 100 minutes in the LMS, or have not created an electronic lab notebook). Emails opened refers to the number of students recorded to open the email at least once.

We delivered information about tutorials (group allocations, links to access their group's online class), assessment feedback and summary of marks through personalised dashboards on the LMS. Unlike emails, this information could be updated, e.g., if students changed groups, as assessment marks were finalised. In all three semesters that it was used, all enrolled students accessed information about their group or tutorial allocations more than once, with students accessing on average 23 times each in semester 1 2022. Most students accessed the assessment feedback and summary of marks, and student feedback were mostly positive. This was supported by comments that the information was presented clearly (one in 2022, two in 2023) (Tables 3 & 4).

Table 3Views and Feedback from Students in Genetics and Genomics in 2022

Description	Students opening (% of enrolled)		Total open	Feedback: Yes	Feedback: No
Practical information (Zoom links for online students)	379	(105.9%)	3199	13	0
Rescheduling practicals (9 practicals total)	153	(42.7%)	336	5	0
Tutorial information	349	(97.5%)	2236	12	0

Notes: All these dashboards were embedded onto a webpage of the LMS. The data represent totals from the entire semester, with percentages expressed based on the total at the time of data collection (n = 358). "Yes" and "No" refer to responses to the prompt: "Help us improve: Was this page helpful?"

 Table 4

 Requests, Views and Feedback From Students in Biochemistry and Molecular Biology in 2023 (Similar Results to 2022)

Description	Requests	Students openin	g (% of enrolled)	Total open	Feedback: Yes	Feedback: No
Group allocations	21	819	(109.9%)	8987	35	7
Rescheduling practicals and tutorials (5 practicals, 5 tutorials total)	227	465	(62.4%)	1137	5	1
Extensions (for 6 assessments)	145	192	(25.8%)	405	4	1
Assessment feedback	N/A	560	(75.2%)	1013	5	2
Mark overview	47	680	(91.3%)	3110	15	6

Notes: All these dashboards were embedded onto a webpage of the LMS. Requests are from 745 students enrolled at time of data collection. The remaining data represent totals from the entire semester. "Yes" and "No" refer to responses to the prompt "Help us improve: Was this page helpful?"

While the Assessment Feedback dashboard did not allow students to submit requests, they could use the Mark Overview dashboard to request clarification about any of their assessment marks.

Students Asked for Help

To encourage students to ask for help, we set up forms in the SRES, embedded them in the LMS and reminded students regularly about this option. The most frequently used were requests to reschedule their practicals if they were unable to attend their timetabled session (accessed by 42% to 62% of students across the semesters), and for five-day extensions if they were concerned about meeting assessment deadlines (accessed by 26% to 35% of students across the semesters).

For Genetics and Genomics in 2022, there were 125 requests to reschedule their practical classes during the semester (nine classes total, average 14 per class) and 195 requests for extensions on their practical report that contributed 25% towards the final grade (from 358 students enrolled at time of data collection; see Table 3).

In the larger Biochemistry and Molecular Biology course (739 and 745 students enrolled for 2022 and 2023, respectively at the time of data collection), there were on average 37 requests to reschedule per class and 37 requests for extensions per assessment in 2022, and an average of 23 requests to reschedule per class and 24 requests for extensions per assessment in 2023 (see Table 4). Attendance at practical classes were required for four assessment tasks that in total contributed 20% towards the final grade, so students may have been more motivated to attend an alternative class if they were unable to attend their timetabled class.

The feedback about the information presented (tutorial information and mark summaries), and request forms (rescheduling classes and extensions) were overall positive (Table 3 & 4). There were two comments from Biochemistry and Molecular Biology students in 2022 that the ability to reschedule practical classes was helpful (one in the SRES and one in response to the student evaluation survey). Similarly, there were two comments from Biochemistry and Molecular Biology students (one in 2022 and one in 2023) that it was easy to apply for an extension. There were also more general comments about feeling supported and academics being kind or understanding, but these were not investigated in detail as it was not obvious whether these were related to the interventions.

Discussion

Students are individuals with differing needs, and should be supported as such, while managing the challenges of large courses and increasingly diverse cohorts. In this practice report we focused on improving communication between students and academics. In particular, by using personalised communication as a means to empower students to seek help from us, as this has been correlated with improved student learning and retention (Braxton et al., 1995; Felten & Lambert, 2020; Kahu et al., 2022; Micari & Pazos, 2012; O'Keeffe, 2013).

We used the SRES to deliver personalised communication in two large courses (~350 and ~750 students) over a two-year period, including semesters delivered entirely online and semesters with a mix of students attending on-campus and online. This enabled us to efficiently deliver communication on the LMS or email in a way that was personalised with the individual's data, including LMS usage data, and data entered by staff or students. After the initial set up, all templates for personalised communication and forms for students were copied and reused, adapted and improved on between semesters and courses. The SRES can be freely accessed from other universities, so this approach can be similarly adopted. OnTask (Pardo et al., 2018) is a similar tool that has been used at other institutions to deliver personalised communication (Lewis et al., 2021). Alternatively, Mail Merge using Microsoft Office has also been used to achieve this (Dart & Spratt, 2021).

It is challenging to determine what advice is helpful for students and this can vary between subjects, cohorts and students (Gašević et al., 2016). It is also important for this guidance to align with students' perceptions of what is relevant and important for their learning (Hartnett, 2015). Our communication aimed to identify students who may need help, and to recommend that they engage in activities directly relevant to their learning (attending practical classes, accessing the LMS and their lab notebooks), while also reminding them to contact us if they needed support. While there were concerns that students may respond negatively to these reminders such as observed previously (Lawrence et al., 2019), we did not observe this. In the four semesters that we sent these emails, the proportion students opening the emails ranged from 46% to 70% (see Table 2). Comparing between the four semesters, there was no difference in the proportion of students opening the emails when we targeted it to potentially disengaged students and to the semester where we emailed all students. This suggests that our communications were reaching these students as effectively as we were reaching wider cohort. From our perspective, this was an efficient approach to simultaneously reach out to students to encourage engagement and improve awareness about support that was available from us or the university. While we could see students signing up to their electronic lab notebooks in response to the emails, we did not compare student engagement beyond this, such as using the Canvas site. However, personalised communication similar to these have been previously shown to be effective in improving engagement of online students (Lawrence et al., 2021). Personalised communication from the university has also been previously shown to be valued by students studying online (Stone & O'Shea, 2019). While we had a mix of students in three out of the four semesters studied, students in these large courses may feel similarly isolated and could benefit from communication. Personalised information on the LMS were highly accessed and feedback were mostly positive, aligning with findings that students feel more positive about LMSs where they had access to relevant resources and timely feedback (Weaver et al., 2008).

One challenge in supporting students is that they may be afraid to seek help directly from academics (Karabenick, 2003). In addition to delivering personalised communication, we also aimed to help students ask for support. Requests for extensions were highly used, particularly by Genetics and Genomics students where over half the students (54.5%; 195 students) requested an extension on their practical report in 2022. The number of extension requests also increased towards the end of semester when there were heavier workloads for students from other courses. A survey on educators' experiences supporting

students identified that students may experience stress from managing assessment deadlines alongside difficulties they are experiencing outside of their studies (McKendrick-Calder & Choate, 2023). Our approach enabled students to use these support systems to manage their studies and workload, but this should be complemented with assessment design considerations aimed at reducing the need for accommodations.

To our knowledge, this is the first report of an approach for academics to effectively address this in large courses in a scalable and sustainable way. As recommended by Stone and O'Shea (2019), we aimed to help students to reach out to us by embedding access to support that was easy to find (on the LMS) and reminded them regularly through personalised communication. Although filling in a form may feel less personal than sending an email, we stated that submitting the form would trigger an automatic email. Therefore, students could efficiently submit the information, and emails were clearly structured for us to action. In most cases, we did not need to follow up for further details. The structure of the email notification enabled inbox rules to be set up to manage these emails. All the examples of communication to and from students described in this paper were managed by one academic, demonstrating that this approach is practicable for an individual, even with as many as 750 students. Furthermore, students communicated what they needed, which enabled us to suggest relevant university resources that they may not have been aware of.

Conclusion

The key breakthrough of our approach is the scalability and sustainability of student-initiated support mechanisms, which we have demonstrated to be consistently effective in courses ranging from 350 to over 750 students, across two years (four semesters), ranging from online to mixed with on-campus teaching. These approaches are:

- 1. **Reach out to students with low engagement.** Address students by preferred names and personalise communication with actionable feedback based on their engagement data. The choice of data to use will be dependent on the course and learning activities. Include information about support services for students who may need extra support.
- 2. **Simplify information for students.** Show students only information that is relevant to them to reduce cognitive load, time and effort of searching through information.
- 3. **Simplify getting support.** Encourage students to seek help if they need it. Design simple forms that are easy to find, e.g., on the LMS. This also improves efficiency by ensuring all the required information are available for the academic to action.

References

- Braxton, J. M., Vesper, N., & Hossler, D. (1995). Expectations for college and student persistence. *Research in Higher Education*, 36(5), 595-612. http://www.jstor.org/stable/40196256
- Brown, A., Lawrence, J., Basson, M., Axelsen, M., Redmond, P., Turner, J., Maloney, S., & Galligan, L. (2022). The creation of a nudging protocol to support online student engagement in higher education. https://doi.org/10.1177/14697874211039077
- Dart, S., & Spratt, B. (2021). Personalised emails in first-year mathematics: Exploring a scalable strategy for improving student experiences and outcomes. *Student Success*, 12(1), 1-12. https://doi.org/10.5204/ssj.1543
- Eloff, I., O'Neil, S., & Kanengoni, H. (2023). Students' well-being in tertiary environments: insights into the (unrecognised) role of lecturers. *Teaching in Higher Education*, 28(7), 1777-1797. https://doi.org/10.1080/13562517.2021.1931836
- Felten, P., & Lambert, L. M. (2020). *Relationship-rich education: How human connections drive success in college*. Johns Hopkins University Press.
- Gašević, D., Dawson, S., Rogers, T., & Gasevic, D. (2016). Learning analytics should not promote one size fits all: The effects of instructional conditions in predicting academic success. *The Internet and Higher Education*, 28, 68-84. https://doi.org/https://doi.org/10.1016/j.iheduc.2015.10.002
- Hartnett, M. K. (2015). Influences that undermine learners' perceptions of autonomy, competence and relatedness in an online context. *Australasian Journal of Educational Technology*, 31(1). https://doi.org/10.14742/ajet.1526
- Heinrich, E., Thomas, H., & Kahu, E. R. (2022). An exploration of course and cohort communication spaces in Discord, Teams, and Moodle. *Australasian Journal of Educational Technology*, 38(6), 107-120. https://doi.org/10.14742/ajet.7633
- Kahu, E. R., Ashley, N., & Picton, C. (2022). Exploring the complexity of first-year student belonging in higher education: Familiarity, interpersonal, and academic belonging. *Student Success*, 13(2), 10-20. https://doi.org/10.5204/ssj.2264
- Karabenick, S. A. (2003). Seeking help in large college classes: A person-centered approach. *Contemporary Educational Psychology*, 28(1), 37-58. https://doi.org/10.1016/s0361-476x(02)00012-7
- Kinman, G., & Jones, F. (2003). "Running up the down escalator": Stressors and strains in UK academics. *Quality in Higher Education*, 9(1), 21-38. https://doi.org/10.1080/13538320308162
- Lawrence, J., Brown, A., Redmond, P., & Basson, M. (2019). Engaging the disengaged: Exploring the use of course-specific learning analytics and nudging to enhance online student engagement. *Student Success*, 10(2), 47-58. https://doi.org/10.5204/ssj.v10i2.1295
- Lawrence, J., Brown, A., Redmond, P., Maloney, S., Basson, M., Galligan, L., & Turner, J. (2021). Does course specific nudging enhance student engagement, experience and success?: A data-driven longitudinal tale. *Student Success*, 12(2), 28-37. https://doi.org/10.5204/ssj.1914
- Lewis, S., Heath, G., Lim, L., & Roberts, R. (2021). "I'm not a number, I'm someone to them": Supporting commencing university students' through technology-mediated personalised communication. *Student Success*, 12(1), 24-34. https://doi.org/10.5204/ssj.1623
- Liu, D. Y.-T., Bartimote-Aufflick, K., Pardo, A., & Bridgeman, A. J. (2017). Data-driven personalization of student learning support in higher education. In A. Peña-Ayala (Ed.), *Learning analytics: Fundaments, applications, and trends* (pp. 143-169). Springer International Publishing. https://doi.org/10.1007/978-3-319-52977-6 5
- McKendrick-Calder, L., & Choate, J. (2023). Educators' lived experiences of encountering and supporting the mental wellness of university students. *Higher Education Research & Development*, 1-16. https://doi.org/10.1080/07294360.2023.2218810
- Micari, M., & Pazos, P. (2012). Connecting to the professor: Impact of the student–faculty relationship in a highly challenging course. *College Teaching*, 60(2), 41-47. https://doi.org/10.1080/87567555.2011.627576
- Niemiec, C. P., & Ryan, R. M. (2009). Autonomy, competence, and relatedness in the classroom: Applying self-determination theory to educational practice. *Theory and Research in Education*, 7(2), 133-144. https://doi.org/10.1177/1477878509104318
- O'Keeffe, P. (2013). A sense of belonging: Improving student retention. College Student Journal, 47, 605-613.
- Pardo, A., Bartimote-Aufflick, K., Shum, S. B., Dawson, S., Gao, J., Gasevic, D., Leichtweis, S., Liu, D. N., Martinez-Maldonado, R., Mirriahi, N., Moskal, A. C. M., Schulte, J., Siemens, G., & Vigentini, L. (2018). OnTask: Delivering data-informed, personalized learning support actions. *Journal of Learning Analytics*, 5(3), 235-249. https://doi.org/10.18608/jla.2018.53.15
- Reynolds, M., Tyler, J., Wakefield, J., & Wight, R. (2024). Students got mail: Do students read semi-tailored emails and what is the impact? *Australasian Journal of Educational Technology*, 40(1), 57-77. https://doi.org/10.14742/ajet.8812
- Stone, C., & O'Shea, S. (2019). Older, online and first: Recommendations for retention and success. *Australasian Journal of Educational Technology*, 35(1). https://doi.org/10.14742/ajet.3913
- Weaver, D., Spratt, C., & Nair, C. S. (2008). Academic and student use of a learning management system: Implications for quality. *Australasian Journal of Educational Technology*, 24(1). https://doi.org/10.14742/ajet.1228

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