

# ASCILITE 2024

## Navigating the Terrain:

*Emerging Frontiers in Learning Spaces, Pedagogies, and Technologies*

### Preferred Learning Strategies of Tertiary Students who Experience Success: The Top Five Engagement 'Basic Elements' of 2021-2023

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This paper highlights the importance of utilizing innovative evidence-based teaching strategies that keep students motivated and engaged to support success in their tertiary academic studies. Research consistently reports that students are more likely to persist and succeed in their studies when they feel supported, challenged, and connected to their learning environment. Listening to tertiary student voices between 2021-2023 on what strategies improved their engagement and learning, this paper summarises student suggestions over six trimesters at a rural Australian university. The strategies nominated by students as supporting successful learning were the use of a flexible submission portal for assessments, clearly defined rubrics, video explanation of assessments, providing exemplars of requirements and the consistent presentation of unit content across the learning management site. By incorporating a flexible submission portal for assessments, clearly defined rubrics, video explanation of assessments, providing exemplars of requirements, and presenting units consistently across the learning management site, these were consistently the strategies students voted over three years as being most helpful to their learning. This paper emphasizes the need for universities to listen to student evaluation suggestions and prioritize effective teaching strategies as a key factor in promoting student retention, success, and overall satisfaction in higher education.

*Keywords:* First-year experience, inclusion, tertiary study, retention, teaching strategies

#### Introduction

All universities have historically grappled, and continue to grapple with the issue of retaining students in their enrolment, especially in the first-year of study (Cherastidtham & Norton, 2018). The abundant literature on first-year student retention and attrition confirms several identified demographic factors associated with students who drop out in their first year of study (Cherastidtham & Norton, 2018; Naylor et al., 2018; Seidel & Kutieleh, 2017; Stone & O'Shea, 2013). These demographic factors associated with this cohort are often referred to as 'students from non-traditional backgrounds', representing approximately 94% of University of New England's (UNE) first-year students. Specifically, these students reside in regional/remote locations, study online, and are of mature age upon commencement. These three aspects imply that these students may have concurrent family and work commitments competing with their higher education study engagement, resulting in the decision to study online and part-time, attributes that place them at a higher risk of attrition (Stone & O'Shea, 2013).

An examination of first-year units offered by UNE's School of Education (SoE) over four years to 2020 identified that the early withdrawal, i.e. the early withdrawal of students prior to the university census date when they become financially liable for fees ranged from 5.2% to 41.1% (Harrington et.al, 2021; Harrington et.al. 2024). Other characteristics of students from non-traditional backgrounds of the 2020 teacher education student cohort comprised of approximately 5,100 students, reported that 82.6% were aged 25 years or older, 20.3%

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identified as experiencing a low SES background, 43.7% reported being the first-in-family to enter tertiary education, and 96.1% were studying off-campus.

Concurrent to these environmental factors, many students entering tertiary study still have many challenges that await them. Issues of time management, especially the ability to successfully juggle multiple deadlines and responsibilities, may pose a substantial challenge, especially if they are coming from more structured environments such as high school. New students potentially underestimate the academic expectations of tertiary education, often leading to increased workloads and levels of difficulty that manifest as feelings of failure, inadequacy and stress (Harrington et.al., 2022). Additionally, financial stressors in current economic times reinforce the subconscious need to succeed academically, that only adds to the mental health demands of the student (Stone & O'Shea, 2013). The ability to discipline oneself to remain focussed and pursue academic success, often requires students to take more responsibility for their own learning and seek out resources on their own (Harrington et.al., 2024). Students may lack the confidence and skills required to teach themselves these research and self-management skills.

High numbers of SoE students (94%) opt to study by distance, including students in rural and remote settings needing to relocate from family and supports into the new environment to engage with tertiary study. This requires levels of self-confidence to make friends, negotiate the academic challenges, and remain positive, whilst they try to find a sense of belonging and support in their new and unfamiliar setting. The pressures of transitioning to tertiary education can take a toll on students' mental health, as many first-year students experience feelings of anxiety, depression, or be overwhelmed as they navigate the challenges of adjusting to a new academic and social environment. Each year universities continue to invest substantial funds and resources into its student support processes to address the early attrition statistics in their first-year cohorts, with limited positive impact upon the existing attrition rates (Cherastidtham & Norton, 2018; Naylor et al., 2018).

## The Commencing Student Success Project (CSSP)

### Background – The 14 Basic Elements (BEs)

The Commencing Student Success Project (CSSP) piloted in 2021 sought to examine an alternate aetiology of student attrition by considering the role of the (UC) as central to student decisions to attrit (Farr-Wharton, et.al., 2017; Harrington et.al., 2024; Harrington et al., 2021). The underpinning paradigm of the CSSP approach was that student retention and attrition outcomes were not solely the result of external, objective, student-relevant demographic attributes over which academics had no control. Rather, student outcomes could be directly influenced by the development of high-quality teaching and pedagogy-related actions to support student success (Harrington et.al., 2024).

Effective teaching strategies play a crucial role in student retention in universities (Harrington et.al., 2021). A search of the research literature identified many successful strategies previously used to improve student retention and engagement in tertiary settings for non-traditional students, especially in commencing units (Baik et al., 2015; Farr-Wharton et al., 2017; Grebennikov & Shah, 2012; Harvey et al., 2016; Kift, 2015; Paolini, 2015; Stone & O'Shea, 2013; Stone & Springer, 2019). These evidence-based strategies were grouped in similarity are presented as a final list of 14 'Basic Elements' (BEs) in Table 1 below. These BEs were then embedded into first-year and commencing unit offerings commencing in the SoE, trimester 1, 2021.

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Table 1

*The 14 evidence-based 'Basic Elements'*

Basic Element	Title
1	Videos by the UC – Introduction to unit and topics
2	Flexible assessment submission portal
3	Grouping of assessments
4	Removal of exams
5	Video explanation of assessments
6	Provide examples of assessment expectations
7	In-unit post-assessment task evaluations
8	Assignment levels and requirements pitched at student level
9	Provide collective feedback to all students on how to improve their assessments
10	The UC was present and approachable within the unit
11	Consistency of Moodle presentation
12	Module reflection points and clear learning goals for each topic
13	Clearly defined assessment rubrics
14	Embedded hyperlinks to UNE Academic Skills Office for assistance

The university's existing intervention for 'at-risk' students primarily involved the university's Student Services Department personally contacting each student, checking if they have any queries or concerns with their enrolment, and empowering them to seek additional support from a range of university services. Student concerns or queries about units are responded to by someone external to the school, typically reading a brief provided by the lecturer or unit coordinator (UC) as to what students may require. The CSSP's management team concluded that such approaches were likely ineffective as demographic factors such as socio-economic status, work commitments, health concerns, and geographical location, demonstrated by the high proportion of the student cohort were beyond the capacity of the university to address such factors successfully (Harrington et.al., 2022; Harrington et.al., 2021).

### Listening to Students

Central to the CSSP was incorporating evidence-based research findings relevant to teaching quality and listening to what students want (Harrington et.al., 2021). Research has reported how student evaluations of teaching can inform effective teaching strategies that improve student learning outcomes, including the preferences of first-year students (Theobald et.al., 2017). Universities regularly dispense end of teaching evaluations for students to voice their experience of the unit, and the evaluations provide a space for students to make suggestions for unit improvement. Despite this, fewer students take up the opportunity to do so, with evaluation responses at UNE in 2024 currently at an all-time low of 15%, meaning that UCs have little feedback from students on how to improve the unit offering. Other reports have investigated the factors that influence student perceptions of learning and teaching in Australian universities, including teaching strategies and approaches that students prefer (Devi et.al., 2019; James et.al., 2013). These studies and reports often provide valuable insights into the teaching strategies that resonated with first-year students in the tertiary system, highlighting the importance of active learning, supportive instructors, technology integration, collaborative learning, and variety in teaching methods. By listening to and considering these learning preferences stated by students, educators can design more engaging and effective teaching practices that meet the needs of all students in higher education.

### Method

Ethics was received (HE20-083) and participants were given an information sheet and consent form, understanding the purpose and their role in the research. At the end of each teaching trimester in July and

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November, students in the SoE units involved in the CSSP were invited by email to complete a survey using Qualtrics. The survey comprised three primary areas. The first two areas asked students to rate the challenge and overall engagement with the following aspects of the unit: i) Understanding of the subject matter; ii) Learning in an online environment; iii) Navigating Moodle to find things; iv) Communicating with the Unit Coordinator; and v) Communicating with other students. This was followed by a section that asked students to rate their experience relevant to the listed 14 basic elements: *How important was each of the following strategies in respect of enhancing your experience of learning in your first-year unit/s? Do not answer any items that you consider were not evident in your first-year units.* Students rated the importance of each item on a Likert-scale from 1 – Not important at all, up to 7 – Very important.

When the CSSP was commenced in trimester 1 2021, the 14 basic elements as listed previously in Table 1, were identified for inclusion in the research based upon the literature reviewed. Data were collected for these 14 elements for trimesters 1 and 2, 2021 and trimester 1, 2022. At that time, an analysis was completed of the basic elements based on the preferences expressed by students and the potential effectiveness of continuing to use each basic element. The list was then reduced to 10, as summarised in Table 2, for the period from Trimester 2, 2022 to Trimester 2, 2023. The Friedman's test indicated there was a statistically significant difference in the ranking of the basic elements ( $N = 268, \chi^2 = 466.481, df = 13, p < 0.001$ ).

Table 2

*Reduced list of basic elements T2 2022 to T2 2023*

Basic Element	Title	
1	Videos by the UC – Introduction to unit and topics	Q10_1
2	Flexible assessment submission portal	Q10_14
5	Video explanation of assessments	Q10_5
6	Provide examples of assessment expectations	Q10_6
8	Assignment levels and requirements pitched at student level	Q10_15
9	Provide collective feedback to all students on how to improve their assessments	Q10_9
10	The UC was present and approachable within the unit	Q10_10
11	Consistency of Moodle presentation	Q10_11
12	Module reflection points and clear learning goals for each topic	Q10_12
13	Clearly defined assessment rubrics	Q10_13

## Results

The dataset for the three data collections from T2 2022 to T3 2023 using the reduced list of 10 basic elements was tested using Friedman's test. The mean ranks are shown in Table 3 below with the basic elements ranked from lowest to highest.

Table 3

*Friedman's Test of 10 basic elements T2 2022 to T2 2023 (N = )*

Basic Element	Title		Mean Rank
12	Module reflection points and clear learning goals for each topic	Q10_12	4.57
9	Provide collective feedback to all students on how to improve their assessments	Q10_9	4.86
1	Videos by the UC – Introduction to unit and topics	Q10_1	4.90
11	Consistency of Moodle presentation	Q10_11	5.17
8	Assignment levels and requirements pitched at student level	Q10_15	5.51
10	The UC was present and approachable within the unit	Q10_10	5.56
5	Video explanation of assessments	Q10_5	5.75
13	Clearly defined assessment rubrics	Q10_13	5.86

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6	Provide examples of assessment expectations	Q10_6	6.31
2	Flexible assessment submission portal	Q10_14	6.49

The Friedman's test indicated there was a statistically significant difference in the ranking of the basic elements ( $N = 272, \chi^2 = 194.048, df = 9, p < 0.001$ ).

The mean scores of the Qualtrics surveys for students were compiled and analysed at the end of each trimester, identifying emerging themes and patterns. The individual trimester results were then compared, and a mean value taken for each year for the specific Qualtrics question asking students and UCs to identify and rank in order of importance, which BEs 'enhanc[ed] your experience of learning'. The student results are illustrated in Table 4 below.

Table 4

*Student responses - Top 5 BEs 2021-2023*

Student responses - Top 5 BEs 2021-2023			
T1 Top 5	Mean/7.0	T2 Top 5	Mean/7.0
Flexible Assessment Submission Portal	6.1	Flexible Assessment Submission Portal	6.2
Video explanation of assessments	6.1	Clearly defined assessment rubrics	6.2
Clearly defined assessment rubrics	6.0	Video explanation of assessments	6.0
Provide examples of assessment expectations	6.0	Provide examples of assessment expectations	6.0
Consistency of Moodle presentation: teaching, presentation, location of items, structure	5.9	Consistency of Moodle presentation: teaching, presentation, location of items, structure	6.0

The least popular 5 BEs are listed below in Table 5.

Table 5

*Student responses - Bottom 5 BEs 2021-2023*

Student responses - Bottom 5 BEs 2021-2023			
T1 Bottom 5	Mean/7.0	T2 Bottom 5	Mean/7.0
Grouping of assessments – replacement of tasks that are small e.g. <10%	4.6	Provide collective feedback to all students on how to improve their assessments	5.0
Embedded hyperlinks to UNE Academic Skills Office for assistance	5.0	Embedded hyperlinks to UNE Academic Skills Office for assistance	5.0
Assignment levels and requirements pitched at student level	5.4	In-unit post-assessment task evaluations	5.1
Provide examples of assessment expectations	5.5	Module reflection points and clear learning goals for each topic	5.3
The UC was present and approachable within the unit	5.7	Assignment levels and requirements pitched at student level	5.4

By way of contrast, when UCs were asked to rank the same 14 BEs in order of their preference and perspective of what they believed to be most useful to student learning and engagement, their results were quite different as reflected below in Table 6.

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Table 6

Unit Coordinator responses - Top 5 BEs 2021-2023

<u>T1 Top 5</u>	<u>Mean/7.0</u>	<u>T2 Top 5</u>	<u>Mean/7.0</u>
Clearly defined assessment rubrics	<u>6.1</u>	<u>The UC was present and approachable within the unit</u>	<u>5.5</u>
<u>Consistency of Moodle presentation: teaching, presentation, location of items, structure</u>	<u>5.6</u>	<u>Videos by the Unit Coordinator – Introduction to unit, topics etc</u>	<u>4.9</u>
<u>Videos by the Unit Coordinator – Introduction to unit, topics etc</u>	<u>5.3</u>	<u>Video explanation of assessments</u>	<u>4.6</u>
<u>Provide examples of assessment expectations</u>	<u>5.2</u>	<u>Provide examples of assessment expectations</u>	<u>4.4</u>
<u>Video explanation of assessments</u>	<u>4.9</u>	<u>Provide collective feedback to all students on how to improve their assessments.</u>	<u>4.3</u>

### Discussion

The results reflect what students vote as most important to their learning over six trimesters in three years. Table 4 shows how students have consistently voted for strategies that explicitly illustrate what is expected of them in their assessments and units. First-year students prefer clear and well-defined expectations from their instructors, including clear learning objectives, assignment guidelines, and assessment criteria. The video explanations that complement the written expectations of assessment requirements, are popular with students, and UNE BI metrics confirm that each student listens to the video recordings a minimum of three times each. All of the following student comments have been taken from T1 and T2 2022 and 2023 student evaluations:

‘Videos by the unit coordinator to begin each week made it feel personalised and relevant because they weren't pre-recorded and the UC made sure our concerns and things impacting us were addressed really well. It felt like we mattered’ (T2, 2022, Student);

‘Having more face-to-face contact even through videos make it more personable especially for online students. Being clear on expectations for those of us who have not studied for a long time enables us to direct our studies more efficiently’ (T1, 2023, Student);

‘All these [BEs] made me feel like I knew what I'm doing, and then I have a platform to talk to the UC and peers rather than feeling like I'll look stupid for asking a question that has nothing to do with the assignment, or that the answer is somewhere I haven't looked yet’ (T2, 2021, Student);.

The clearly defined rubrics as well as an exemplar of what you are expecting, are welcome scaffolds for students. These clear expectations help students understand what is required of them and can reduce feelings of uncertainty and anxiety. Comments included:

‘Fresh content, I felt connected to the classroom and concepts, supportive UC and fairness from UCs, excellent teaching and support staff. Practice feed-back and realistic assessments with absolutely defined rubrics/criteria. Clear assessment details and criteria are essential; if you can't answer an assessment from what's asked of you and it doesn't match the rubric, what's the point of assessment of learning if it is different instructions from the assessment to the forum posts to the assessment help video. Clear and concise expectations (T2, 2022, Student);

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'The structure of assessment tasks were clear, and I felt the coordinator was setting up the details for students to succeed' (T1, 2023, Student);

'What I liked was that the UC did not put pressure on you to "join in" (with forum comments and the like). The flexible submission point is fantastic and general collective feedback is very helpful (mind you I find any feedback helpful and really take it on board)' (T2, 2021, Student);

The consistency of the Learning Management System (LMS) is vital for students to navigate with ease to avoid stress, confusion and disengagement. The CSSP strove to have highly accessed sections in units e.g. Assessment, Unit Resources, Due dates, placed in the same position across all the LMS units. Weekly introductions were appreciated. Comments included:

'I feel that the interactive Moodle site and easy navigation to find content made it a more approachable activity' (T1, 2022, Student);

'The weekly introduction videos helped me re-centre any time I had fallen behind and feel like I knew what "everyone" was working on. Moreover, having an exemplar that everyone has access to made it feel equitable rather than some people emailing the UC and getting extra examples/advice that others may not have felt confident to ask for' (T2, 2021, Student);

'The weekly updates about unit materials was also predictable and I could reply on them for weekly expectations' (T2, 2022, Student);

The most popular evidence-based 'element' was the flexible submission portal where students could change the due date of an assessment without evidence, for up to three weeks. The data was overwhelmingly positive and recognised the challenge students have in balancing their study, employment and other environmental e.g. home demands. Students said:

'The communication in these units, assessment rubrics, assignment videos, and the time taken to clarify expectations was outstanding. Also the flexible portals, which allowed us to manage our work/life/uni balance. It showed respect to the learner' (T2, 2022, Student);

'Seeing the lecturer every week online and more control over my due dates which allowed me to submit early... The flexible portal has given me a sense of I can do this, I can teach this' (T1, 2022, Student);

'The flexible admissions portal was very helpful when things cropped up unexpectedly and I needed an extra couple of days. I could have a sense of control over my study without having to go through the drama of asking and waiting for an extension approval' (T2, 2023, Student);

'The subject coordinator of this unit was very clear about expectations, and also encouraging the use of the flexible portal. How refreshing to actually have a coordinator who understands life and it's impact on study. Also, the assignment examples were fantastic! This is what learning should be about: here is an example of what is expected, here is the rubric, use the flexible portal if needed, and contact if any questions. These supportive factors made me feel a sense of belonging to the profession' (T1, 2023, Student);

'Having the videos for each module, zoom recordings for tutorials and having the option to choose when assignments are due, all worked in increasing my sense of belonging to the unit' (T2, 2022, Student).

It is worth exploring the notion of first-year student's desire for clarity of assessment expectation, and perhaps considering that this in itself is not a particularly surprising conclusion. Broadly, however, the primary purpose of higher education may not be to provide students with a positive learning experience, but to provide them with a level of education, knowledge and skill to use in their chosen career workplace. Student evaluative comments do indicate that by accessing a higher level of clarity of unit and assessment expectation they desire, for some resulted in better educational outcomes for them. Student comments include:

'Knowing exactly what is expected of you, in the assessments, weekly tasks and readings, makes it so much easier for me to stay on track. I feel like I am really learning and as such, I am getting the best results I have ever had' (T2, 2022, Student);

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I feel so much more confident in getting good marks for my assessments because I know exactly what is expected of me' (T2, 2022, Student);

The video recordings of what is required in assessments is pure gold: I can listen to it over and over, knowing that I am on track, and clear that I have answered the question' (T2, 2023, Student).

When students voted which BEs were least helpful to their learning, it is evident that students did not seem to value the work UCs went to behind-the-scenes when compiling the unit e.g. ensuring assessment levels were pitched appropriately; how assessments were grouped; and stating what the module outcomes should be. It is worth noting as well that the flexible assessment submission portal where students could move their submission date within a set time frame, was not a blanket one-set rule i.e. each unit was able to provide some flexibility depending upon the type of assessment e.g. exam, quiz, etc. when compared to other assessment types e.g. essay, short answer formats. Whilst some units were able to provide up to three weeks flexibility for assessment submission, it was not always feasible for others, so different assessment tasks could have different flexible portal times ranging from 1-3 weeks. Collectively however, from the student's perspective, when four units' assessments that are typically due in the same week e.g. weeks 4 and 5, offer varying degrees of flexibility in due dates, they are able to stagger their assessment submissions according to the flexibility offered by the portals. Despite the popularity the flexible submission portal offered students, UCs did not see how the flexibility in assessment submission could manifest as leading to a more effective learning environment for students. The top 5 strategies by UCs as reported in Table 6 shows that from their perspective, student learning and engagement would benefit most from (descending order mean/14): i) Videos by the Unit Coordinator – Introduction to unit, topics etc (10.2); ii) Provide examples of assessment expectations (9.6); iii) Video explanation of assessments (9.5); iv) Clearly defined assessment rubrics (6.1); and v) Consistency of Moodle presentation: teaching, presentation, location of items, structure (6.1). Additional data collection is underway to understand the impact of how two such differing perspectives of important learning strategies could be so different, and if there is a way to 'meet in the middle' so both student and UCs can benefit. This is already happening across the SoE and the suite of Education units, as both UC and students have room to include and benefit from any of the evidence-based BEs embedded in their units to enhance student engagement and learning.

Students also did not vote the embedded links to the Academic Skills Office (ASO) as helpful, and this was consistently voted in the bottom five BEs. The conclusion that students may not value centralised resources offered by the Academic Skills Office to support their learning is perhaps one of the most interesting outcomes of this research. The data suggests that students are much more interested in advice that is steeped in the context of their actual subject than generic skills, rather than tapping into well-resourced and developed resources external to the unit itself. Despite the Academic Skills Office being well resourced with interactive videos and user-friendly table of contents covering a broad range of topics dedicated to provide clarity and accuracy pertaining to the expectations of academic writing e.g. referencing protocols, academic writing styles, etc., students seem to prioritise and appreciate the overt scaffolding within the unit via video explanations, clear rubrics, and consistency of unit offerings. More research that specifically focusses on student reasons for this is required as this was outside the scope of the data collection.

It is important to highlight that a multi-faceted approach is needed when implementing the evidence-based strategies to improve student engagement and retention. It is not as simple as incorporating the elements into a unit, to only 'set and forget'. Students clearly valued the visibility and approachability of the UC when studying their unit.

## Conclusion

This research has revisited the enduring issue of student drop-out from tertiary settings, and reminded us of the on-going problem of student retention in undergraduate studies. The CSSP comprises 14 evidence-based strategies of engagement and student learning by building upon the Universal Design of Learning (Meyer, et.al., 2014), and student comments link these to an increase in their academic success and enjoyment as a



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result. Over three years, students were consistent in their preference for preferred teaching strategies that were facilitative, supportive, clear, and engaging. The positive impact of the CSSP on first-year cohorts has been recognised as innovative, adaptable and effective, and has now been expanded to be incorporated across the university community. All educators can consider incorporating any of the 14 BEs into their current unit, aware of their evidence-base of impact, and improvement of student success and retention. By incorporating these preferences into their teaching practices, educators can create a more positive and effective learning environment for all students in the tertiary system.

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# ASCILITE 2024

## Navigating the Terrain:

*Emerging Frontiers in Learning Spaces, Pedagogies, and Technologies*

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