STUDENT SUSTAINABILITY LITERACY SURVEY 2023-2024

PRELIMINARY RESULTS

SEPTEMBER 2024

UNIVERSITY of TASMANIA

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1 Introduction

The University of Tasmania (UTAS) is committed to be a leader in sustainability education. Ensuring students are exposed to and engaged in learning experiences that maximise their opportunities to graduate as sustainability-literate citizens is undoubtedly the most important step towards a sustainable future. To meet our commitments to sustainability education, UTAS is undertaking a number of initiatives to assess the current level of integration of sustainability in the curriculum and to evaluate the success of their sustainability education initiatives.

Sustainability literacy is defined as "knowledge about our shared sustainability challenges as well as ways to create solutions to these challenges". Sustainability literacy assessments are designed to assess student understanding of the interconnectedness of social, economic and environmental issues and challenges, and not just knowledge about the environment or environmental problems. Hence, the sustainability literacy assessment focuses on knowledge of sustainability topics and challenges rather than sustainability culture (i.e., values, behaviours, beliefs).

An initial assessment of students' sustainability literacy was conducted in 2023, with the intention of conducting annual assessments to allow for longitudinal data, with the following aims:

- To assess the sustainability literacy of students at the University of Tasmania by school/institute and year of study.
- To measure student learning by comparing results from tests conducted in consecutive years to identify progress and/or mastery of desired learning outcomes.
- To assist in evaluating the success of the University's sustainability education initiatives over time and developing insight into how these initiatives could be improved.

It is not expected that all students will have a high level of sustainability literacy, especially those at the beginning of their university journey. This survey is also a teaching and learning tool, which will be helpful to raise awareness of some of the main sustainability challenges, as well as University sustainability initiatives.

The University thanks the students who have taken the time to participate in the 2023 and 2024 Surveys.

2 About the survey

2.1 Method

The inaugural (2023) and subsequent (2024) University of Tasmania (UTAS) student Sustainability Literacy Surveys (SLS) were conducted via an online survey. Students were invited to participate in the survey in conjunction with the biennial Travel Behaviour Survey and Sustainability Survey (in alternate years).

All University of Tasmania students were invited to participate in the 2023 and 2024 SLSs. To recruit participants, bulk emails were sent to students inviting them to participate in the Travel Behaviour Survey and Sustainability Survey, published on the student News portal and on display screens on campuses. Upon completion of these surveys, students were invited to continue to complete the SLS. The survey was open from 14-28 March 2024.

Participation was anonymous and voluntary, with consent implied by completing the online survey. Approval for this survey has been granted by the Tasmanian Social Sciences Human Research Ethics Committee (Ref. 28344).

To incentivise survey participation, students were given the option to enter the draw to win one of six $50 vouchers in the 2023 surveys. The vouchers value was increased in 2024 to $100 in an attempt to increase survey participation. Students completing the SLS (upon completion of the Travel Behaviour Survey and Sustainability Survey) doubled their winning chances.

Qualtrics, the software platform used to run the survey, and Microsoft Excel were used to conduct data analysis. This report is a summation of the data collected by the surveys, including a comparison of both years.

This report has been prepared by the Sustainability Team to show the main findings from the Surveys. The data can be parsed further by demographic variables. For more information on correlating survey data with specific Colleges, geographical location or other variables, please contact the Sustainability Manager (Strategic Analysis and Reporting), Dr. Carmen Primo Perez.

2.2 Participation and statistical confidence

There was a total of 519 responses in 2023 and 1132 responses in 2024, with an 89% and 88% completion rate respectively. The number of responses doubled in 2024 compared to 2023, likely because of the increase in prize value.

Only complete responses were used in this report (463 and 922 responses, representing 1.7% and 3.5% of the student population respectively). Relative to the student and staff populations, sample sizes provide us with high levels of confidence[1] (Table 2.1).

Table 2.1 *Overview of the survey results for 2023 and 2024*

	Responses (Sample size)	Completion rate	Confidence level[2]	Margin of error
2023	519	89%	90%	+/- 3.8%
2024	1132	88%	95%	+/- 3.1%

There was a higher participation of respondents of division CoHM and CoSE and domestic students (Table 2.2). It is important to note that these response rates by colleges have not been normalised regarding changing College enrolment numbers. Most respondents were studying a bachelor's degree or doing postgraduate studies, and the majority were in their first year of study at the University (noting that there was a noticeable rise in respondents who are in their 1st year in the 2024 survey, with a fall in the percentage of respondents who had been at the University for more than four years).

The percentage of participants who studied mostly on campus was slightly higher than online only in 2024, although similar in the 2023 survey. The participation of respondents who identify as woman was highest among other genders, which reflects the University population.

[1] A confidence level of 95% means that there is a probability of at least 95% that the result is reliable. The larger the margin of error around a value, the less accurate the value.

[2] Confidence levels were calculated using the Survey Monkey sample confidence calculator.

Table 2.2 *Participation of Sustainability Literacy Survey 2024*

	2023	2024
College		
College of Arts, Law and Education (CALE)	28%	23%
College of Business and Economics (CoBE)	8%	9%
College of Health and Medicine (CoHM)	22%	33%
College of Sciences and Engineering (CoSE)	35%	31%
Other	7%	5%
Qualification		
Undergraduate Certificate	13%	15%
Diploma/Advanced Diploma	14%	13%
Associate Degree	2%	1%
Bachelor (incl. double degree)	38%	41%
Honours	4%	4%
Postgraduate	26%	24%
Short course	1%	1%
Other	2%	2%
Length of study at UTAS		
First year	37%	46%
Second year	24%	21%
Third year	17%	16%
Fourth year	5%	9%
Longer than 4 years	17%	9%
Enrolment		
Domestic	86%	85%
International	14%	15%
Primary mode of study		
Mostly on campus	32%	43%
A mix of on campus and online	35%	19%
Online only	33%	38%
Gender		
Man or Male	29%	26%
Woman or Female	66%	68%
Non-binary	3%	4%
Use a different term	0%	0%
Prefer not to say	2%	2%

3 Results

This section presents results relating to students' responses to the Sustainability Literacy Survey. Students were asked 15 single-answer multiple-choice questions (with five possible answers) related to sustainability concepts, including five questions about environmental sustainability, four in relation to socio-cultural sustainability, and three on economic aspects of sustainability. The remaining three questions asked about high-level concept (e.g., systems thinking) and the holistic nature of sustainability. See Appendix 1 for more detail on questions.

3.1 Overview

On average, student respondents answered between 8 and 9 out of 15 questions correctly, with questions related to environmental sustainability being more likely to receive a correct response, and socio-cultural questions receiving a lower number of correct answers (Table 3.1).

Table 3.1 Average number of correct questions overall and per topic

	Overall	Holistic	Environmental	Socio-cultural	Economic
2023	8.9	8.6	10.4	6.7	9.8
2024	8.6	8.8	9.8	6.4	9.1

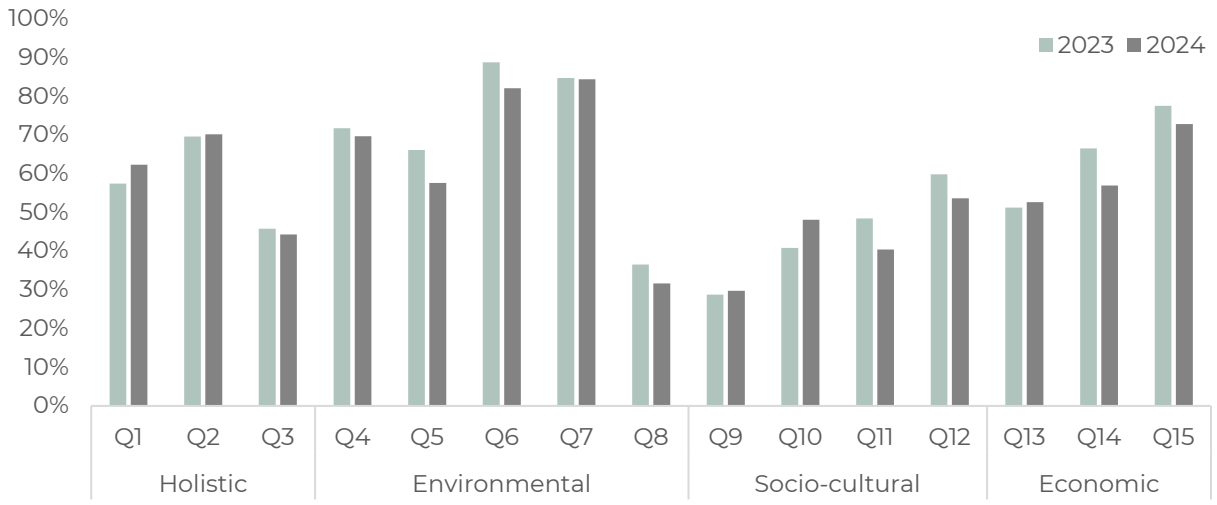

Figure 3.1 Percentage of correct responses per question

For most of the questions, the correct response rate of 2024 is lower than 2023, although the difference is likely not significative.

Among the 15 questions, Q6 (Overshoot Day) and Q7 (cause of climate change) received a higher percentage of correct responses in both surveys (82% and 84% respectively in 2024). Conversely, Q9 (environmental justice) and Q8 (waste hierarchy) had a relatively low correct response rate (30% and 32% respectively) (Figure 3.1). The low response in the waste management hierarchy question is interesting (considering all other environmental sustainability questions received a relatively high rate of correct responses) and it could reflect the confusion that still exist in this area, especially among international students from countries where waste management practices are behind Australia. On the other hand, the way in which the question is formulated (providing examples rather than showing different potential hierarchies) could have also contributed to the confusion, leading to suboptimal responses.

Of special concern is the low rate of right answers in socio-cultural questions (Q9, 10 and 11), with less than 1 in 2 respondents demonstrating knowledge in this area. This should be a focus area for integration of sustainability in the curriculum.

3.2 Results by College

On average, College of Sciences and Engineering (CoSE) students responded two out of three questions correctly. This rate has been consistent in both surveys. Hence, CoSE students demonstrated to have a better sustainability understanding overall (Table 3.2).

Table 3.2 Average number and percentage of correct responses by College.

	2023	2024
Correct responses (#)		
College of Arts, Law and Education (CALE)	8.7	8.8
College of Business and Economics (CoBE)	8.0	7.5
College of Health and Medicine (CoHM)	8.4	7.5
College of Sciences and Engineering (CoSE)	9.8	9.9
Correct responses (%)		
College of Arts, Law and Education (CALE)	58%	58%
College of Business and Economics (CoBE)	54%	50%
College of Health and Medicine (CoHM)	56%	50%
College of Sciences and Engineering (CoSE)	66%	66%

College of Business and Economics (CoBE) and College of Health and Medicine (CoHM) students seemed to have a lower understanding and knowledge of sustainability concepts and facts, with only respondents getting only one in two questions right (Table 3.2). This might change in future surveys as sustainability is progressively integrated in the curriculum across Schools and Institutes.

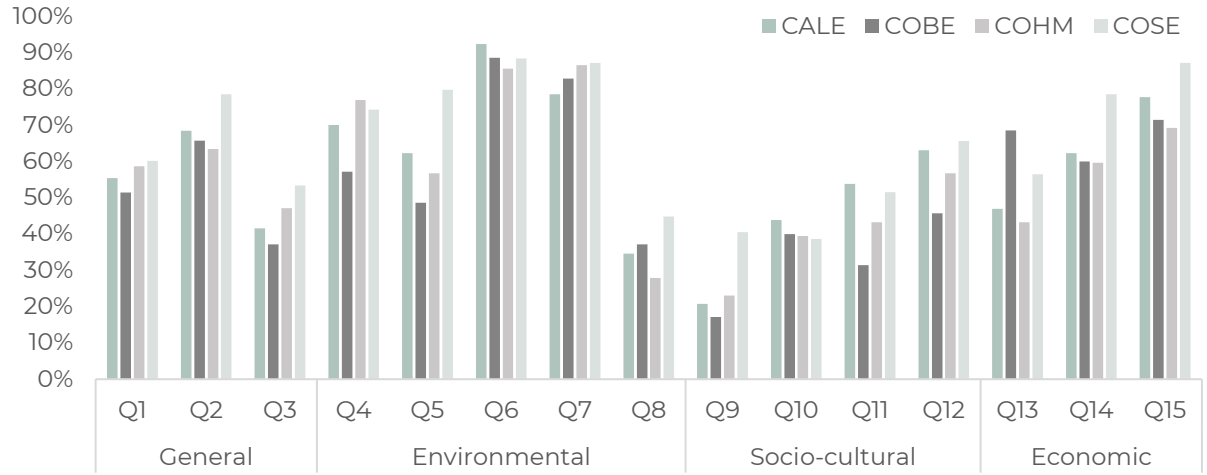

Figure 3.2 Percentage of respondents that answered correctly for each question by college for 2023

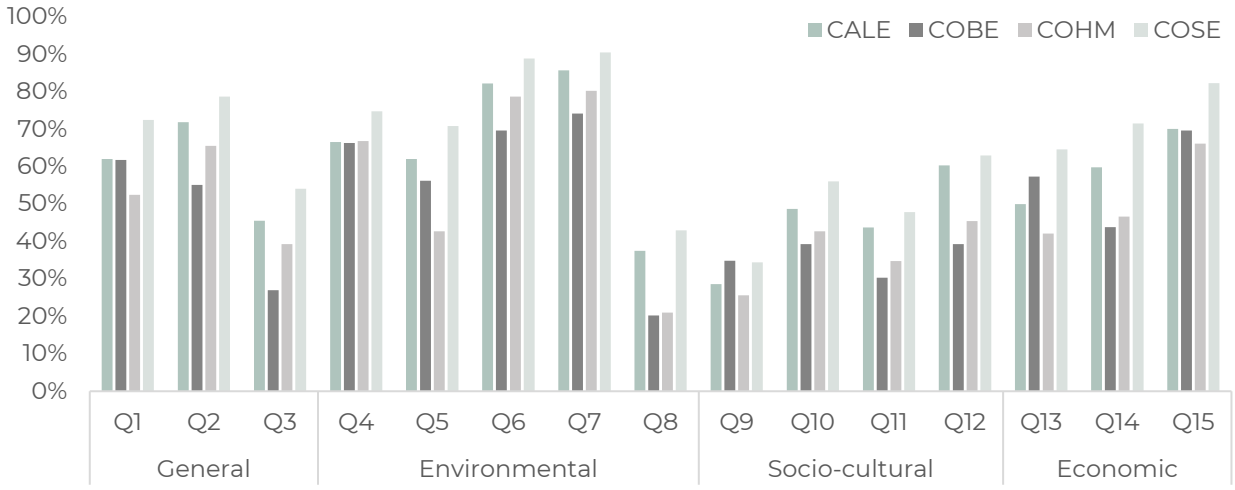

Figure 3.3 Percentage of respondents that answered correctly for each question by college for 2024

Looking at each question individually, COSE consistently scored the highest. Comparing with 2023 result (Figure 3.2), COSE's score steadily increased despite the slight decrease in overall average this year (Table 3.2).

Appendix 1

Question topics

	Holistic
1	Common definition of sustainable development
2	Correct statement about climate change and wealth
3	Systems-thinking approach to understanding sustainability
	Environmental
4	Ecological footprint definition
5	Ecosystem services definition
6	Action that would help to return to a balanced position in relation to Overshoot Day
7	Main cause of climate change
8	Hierarchy of waste management
	Socio-cultural
9	Environmental justice definition
10	Approx. number of victims of modern slavery
11	Traditional Ecological Knowledge characteristics
12	Universal Declaration on Cultural Diversity statement of belief
	Economic
13	Tripple bottom line as accounting framework
14	Circular economy example
15	Economic viability within a sustainability framework