Workshopping AUSSE data:
A guide for facilitators
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A guide to support institutional leaders facilitate discussions on using Australasian Survey of Student Engagement (AUSSE)[2] data with university stakeholders.

About this guide

Purpose

In essence, the AUSSE results provide information that universities can use to improve the quality of the undergraduate student experience and their learning outcomes.

In considering how to put AUSSE data to use, it is important to understand what the results mean and to disseminate the findings to staff within universities who have the capacity to influence student engagement.

Simply reporting AUSSE results will not, by itself, necessarily lead to action. Many institutions in the US who have used the equivalent National Survey of Student Engagement (NSSE) data have found that analysing and discussing the results at events such as retreats, staff development workshops and seminars, and first-year coordinator meetings, for example, are productive ways to stimulate action. This guide is designed to help institutional leaders facilitate such discussions about AUSSE data with various university stakeholders.

How the guide can be used

This guide provides suggestions for leading a workshop or other discussion-based session on understanding, interpreting and taking action on AUSSE data. It suggests interpretative and enhancement approaches that are likely to help develop conversations about student engagement.

We have included step-by-step instructions for facilitating a group session using the data provided in the Institution Report that each university receives. Each section contains a program that includes components such as an overview of the data report, general notes, suggestions for how a facilitator can prepare for discussions about various aspects of the AUSSE results and Institution Report, definitions of key terms, exercises, and suggested discussion points. Sample worksheets are provided to accompany the exercises.

The guide is not prescriptive, but rather, offers suggestions that may be used in their entirety, adapted for use within an institution, or used as a basis for thinking about different strategies appropriate to a particular context.

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[1] Acknowledgement: This guide is based on one developed by Dr Jillian Kinzie as part of the USA NSSE. We are very grateful for her permission to adapt and use this guide, and for her input as co-author.

[2] The Australasian Survey of Student Engagement (AUSSE) is run by the Australian Council for Educational Research (ACER) in collaboration with Australasian higher education institutions. For further information email ausse@acer.edu.au.

Overview of the AUSSE

The concept of student engagement

Student engagement is defined as students' involvement with activities and conditions likely to generate high-quality learning.

The concept of student engagement is based on the assumption that learning is influenced by how an individual student participates in educationally purposeful activities. While students are seen to be responsible for constructing their knowledge, learning is also understood to depend on institutions and staff generating conditions that stimulate and encourage student involvement.

The concept has emerged from many decades of research into higher education student learning and development. In addition to confirming the importance of ensuring appropriate academic challenge, this research has emphasised the importance of examining students' integration into institutional life and involvement in educationally relevant, beyond-class experiences.

Student engagement measures are increasingly understood to be important for higher education quality. Measures of student engagement provide information about individuals' intrinsic involvement with their learning, and the extent to which they are making use of available educational opportunities.

According to research, student engagement data provides information on learning processes, is a reliable proxy for learning outcomes, and provides excellent diagnostic measures for learning enhancement activities.

What is the AUSSE and what does it do?

The AUSSE provides quantitative information on the time and effort students devote to educationally purposeful activities and on students' perceptions of the quality of other aspects of their university experience. The AUSSE was conducted for the first time in 2007.

The AUSSE measures student engagement through the administration of the Student Engagement Questionnaire (SEQ) to an institutionally representative student sample. The SEQ is designed for administration in under 15 minutes in online or paper form. It has been validated for use in Australasian higher education.

The SEQ provides measurement of six scales. Data on these areas of student engagement are included in the information provided to each institution:
- Active Learning – students' efforts to actively construct knowledge
- Academic Challenge – the extent to which expectations and assessments challenge students to learn
- Student and Staff Interactions – the level and nature of students' contact and interaction with teaching staff
- Enriching Educational Experiences – students' participation in broadening educational activities
- Supportive Learning Environment – students' feelings of legitimation within the university community

- Work Integrated Learning – integration of employment-focused work experiences into study.

With formative links to the North American National Survey of Student Engagement (NSSE), data from the AUSSE provides the opportunity for institutions to gather internationally comparable data focused on the quality of teaching and the learning environment. It thus provides each university with a valuable mechanism for improving the effectiveness of learning and teaching.

The AUSSE complements existing evaluation processes within institutions. Linking the AUSSE results to other evaluation data, such as student evaluation of teaching and of student support, may help staff see its relevance. Providing accessible examples and resources to help staff increase student engagement may be beneficial. At a broad level, if contributions to improving student engagement are recognised and rewarded by institutions, this will do much to garner buy-in from individuals, teams and academic units within universities.

Introducing staff to student engagement and the AUSSE

A useful first step is to ensure that the concepts of student engagement and effective educational practice, and their relevance to the particular audience in a particular workshop or other session, are clearly understood. The details provided above, on student engagement and on the AUSSE, may be helpful in providing an overview for audiences in most kinds of discussion-based sessions. Further general materials can be sourced from the NSSE.[3]

To introduce staff to the AUSSE, it is often helpful to ask session participants to identify the items in the first question of the Student Engagement Questionnaire that they believe are most important to student learning for a particular group of students. One common group used for this type of exercise is first-year students, but of course, the group(s) chosen will depend on institutional priorities. Using the original questionnaire for reference, participants might spend a short period of time in pairs or small groups discussing their perspectives on the importance of individual items.

This conversation can also be focused around the worksheets included in this guide. For example, using Worksheet 2, participants can be asked to record their predictions of student responses to particular questions. The results from this informal exercise can then be used for comparison with an institution's actual AUSSE results. The gaps between staff predictions and student responses can be a stimulating starting point for discussions about educational practice and institutional change.

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[3] See: http://nsse.iub.edu/institute

Australasian survey of student engagement

AUSSE

Working with the AUSSE reports

Overview

This overview provides information for working with each of the presentations included in the AUSSE Institution Report.

Each AUSSE Institution Report contains the following presentations:
- Respondent characteristics
- Frequency distributions
- Item statistics
- Scale statistics.

Given the depth and breadth of data contained in an Institution Report, it will also usually be helpful to develop clear objectives and desired outcomes for a session in order to ensure that fruitful discussion can be achieved in the time available. Depending on which of the reports a discussion session might focus on, it may be helpful to make copies of selected survey results from an Institution Report prior to each group session as appropriate.

Report 1: Respondent characteristics

Purpose

It is important to establish the validity of the data the institution receives. Respondent characteristics provide the means to determine how representative a sample is of a student population. Comparisons can also be made with targeted benchmark institutions.

Report overview

The respondent characteristics report provides summary information on selected response, student and course characteristics.

Information on response characteristics includes the actual sample size, the target response sample and the secured response sample. The target sample is smaller than the actual sample due to oversampling.

Results for student and course characteristics are given for:
- First-year and later-year students, and for all students combined
- Your institution (the column titled INST), and for all Australian (AUS), New Zealand (NZ) and Australasian (AUSTL) institutions.

Statistics reported for each characteristic include the:
- Number (r) of responses
- Percentage (%) of responses.

Raw rather than weighted numbers are reported. See Figure 1 for a visual summary.

This report provides summary information on selected response, student and course characteristics.

Information on response characteristics includes the actual sample size, the target response sample and the secured response sample. The target sample is smaller than the actual sample due to oversampling.

Results are provided for your institution (the column titled INST), and for all Australian (AUS), New Zealand (NZ) and Australasian (AUSTL) institutions.

Results are given for first-year and later-year students, and for all students combined.

	First-year students								Later-year students								All students				
	INST		AUS		NZ		AUSTL		INST		AUS		NZ		AUSTL		INST		AUS		NZ
	r	%	r	%	r	%	r	%	r	%	r	%	r	%	r	%	r	%	r	%	r
Response characteristics																					
Actual sample	1300		25754		8266		34020		1300		24145		9214		33359		2600		49899		17480
Target response sample	325	25	6439	25	2066	25	8505	25	325	25	6036	15	2303	25	8340	25	650	25	12475	25	4370
Secured response sample	400	31	2944	11	1257	15	4201	12	400	31	3661	15	1723	19	5384	16	800	31	6605	13	2980
Student characteristics																					
Age																					
Under 20	250	65	1718	61	812	72	2530	65	14	4	93	3	68	5	161	4	264	38	1811	31	880
20 or over	132	35	1077	39	315	28	1392	35	308	96	2892	97	1219	95	4111	96	440	63	3969	69	1534
Gender																					
Male	171	45	1195	43	424	38	1619	41	126	39	1348	45	477	37	1825	43	297	42	2543	44	901
Female	209	55	1610	57	702	62	2312	59	198	61	1649	55	808	63	2457	57	407	58	3259	56	1510
Permanent resident or citizen of Australia																					
Yes	270	72	2685	96	64	6	2749	70	219	68	2737	92	76	6	2813	66	489	70	5422	94	140
No	107	28	118	4	1051	94	1169	30	105	32	248	8	1195	94	1443	34	212	30	366	6	2246
Aboriginal or Torres Strait Islander																					
Yes	4	1	32	1	2	0	34	1	2	1	40	1			40	1	6	1	72	1	2
No	371	99	2751	99	1107	100	3858	99	319	99	2925	99	1259	100	4184	99	690	99	5676	99	2366

Statistics reported for each characteristic include the number (r) of responses and the percentage (%) of responses. Raw rather than weighted numbers are reported.

Australasian survey of student engagement
AUSSE

Figure 1   Interpretation notes for Report 1 – Respondent Characteristics Report

Australasian survey of student engagement
AUSSE

Preparation notes

It might be helpful to prepare an institutional student body profile in advance of the session.

It would also be advisable for a facilitator to be prepared to explain the terms 'response rate', 'sample weighting' and the AUSSE sample design. Your university's planning, quality or statistics unit may be able to assist here.

If the respondent characteristics are of particular interest to a group, the facilitator might lead an examination of how representative respondents are of the institution student body or of particular fields of study, for example.

If the participants in a particular session are not in a position to judge how representative a sample are of the population(s) of interest, the facilitator should provide some information on this aspect of the data.

It might be useful to explain that weighting is applied to all comparison reports and adjusts for respondents within universities by sex and enrolment status. Weights are calculated separately for first-year and later-year students.

It might also be helpful to clarify that the determination of student year ('first year' or 'later year') is based on information provided by students in their survey response.

Possible exercises

A potentially useful exercise is to review demographic features of student respondents. Suggested questions to use as the basis for discussion on the topic of respondent characteristics include:

- Does the AUSSE sample reflect our student body profile?
- If the sample seems skewed, what cautions might be exercised?
- What generalisations are, or are not, possible based on these data?
- How does our institution's response rate stack up against other institutions?

Report 2: Frequency distributions

Purpose

Reviewing frequencies with which students responded to particular items along with comparisons to selected peers and the entire AUSSE cohort provides an accessible basis for thinking through student engagement at your institution.

Report overview

The frequency distributions report shows the distribution of students' responses to each item's response category presented on the Student Engagement Questionnaire (SEQ).

The frequency distributions for the items are reported in the order in which they appear on the SEQ.

Results are provided for:
- First-year and later-year students, and for all students combined
- Your institution (the column titled INST), and for all Australian (AUS), New Zealand (NZ), Australasian (AUSTL), and US and Canadian (USCA) institutions.

USCA figures are not available for all items.

Statistics reported for each response category include the:
- Raw number (r) of responses
- Weighted number (n) of responses in thousands (e.g. 1.5 equals 1500 responses)
- Weighted percentage (%) of responses.

Note that USCA raw (not weighted) numbers are also shown in thousands (r(K)) rather than units. See Figure 2 for a visual summary of the interpretation notes.

This report shows the distribution of students' responses to each item's response categories.

Results are provided for your institution (the column titled INST), and for all Australian (AUS), New Zealand (NZ), Australasian (AUSTL) and US and Canadian (USCA) institutions.

USCA figures are not available for all items.

Results are given for first-year and later-year students, and for all students combined.

AUSSE 2008 Frequency Distribution
Australasian University

Items are presented in the order in which they appear on the SEQ.

First-year students

		INST			AUS		NZ		AUSTL		USCA		INST	
		r	n	%	n	%	n	%	n	%	r(K)	%	r	n
Asked questions in class or contributed to online discussions	Never	48	0.3	12	4.8	9	2.7	23	7.5	11	4.9	4	38	0.2
	Sometimes	206	1.3	51	28.3	50	5.8	51	34.1	50	56.0	39	164	0.9
	Often	104	0.7	28	16.4	29	2.1	19	18.6	27	53.1	35	122	0.6
	Very often	40	0.2	9	7.1	13	0.8	7	8.0	12	35.1	22	73	0.4
	Total	398	2.6	100	56.7	100	11.5	100	68.2	100	149.1	100	397	2.1
Sought advice from academic staff	Never	41	0.2	9	5.8	10	1.6	14	7.4	11			24	0.1
	Sometimes	242	1.6	63	33.4	59	6.8	59	40.2	59			193	1.0
	Often	94	0.6	22	14.4	25	2.6	23	17.1	25			132	0.7
	Very often	22	0.1	6	3.1	5	0.5	4	3.6	5			49	0.3
	Total	399	2.6	100	56.8	100	11.5	100	68.3	100			398	2.1
Made a class or online presentation	Never	135	0.9	35	16.6	29	4.9	43	21.5	32	20.4	16	71	0.4
	Sometimes	155	1.0	39	24.1	43	4.4	39	28.6	42	81.3	53	153	0.8
	Often	85	0.5	21	12.6	22	1.7	15	14.3	21	36.6	23	111	0.6
	Very often	23	0.1	6	3.1	6	0.4	4	3.5	5	10.7	7	61	0.4
	Total	398	2.6	100	56.5	100	11.5	100	68.0	100	149.0	100	396	2.1
Worked hard to master difficult content	Never	11	0.1	3	1.3	2	0.4	3	1.6	2			3	0.0
	Sometimes	110	0.6	24	15.8	28	3.8	33	19.6	29			114	0.6
	Often	196	1.3	51	27.9	50	5.5	48	33.4	49			177	0.9
	Very often	82	0.6	22	11.4	20	1.8	16	13.2	19			100	0.5
	Total	399	2.6	100	56.4	100	11.5	100	67.9	100			394	2.1

Statistics reported for each response category include the raw number (r) of responses, weighted number (n) of responses in thousands (e.g. 1.5 equals 1500 responses) and weighted percentage (%) of responses. Note that USCA raw (not weighted) numbers are also shown in thousands (r(K)) rather than units.

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Figure 2 **Interpretation notes for Report 2: Frequency distributions of item response categories**

Preparation notes

Review the frequency distributions report. It is not necessary to go into great depth when exploring these results. Asking questions for group discussion can help facilitate reflection and understanding among participants.

Identify items that might be of greatest interest to the institution given its mission and goals or to the particular group attending the session. Consider presenting these percentages to participants as a way to capture their interest.

Be prepared to explain the terms 'sample weights', 'raw response numbers', 'weighted response numbers', and 'weighted percentages'.

Possible exercises

Identify the most important items to the institution, faculty, department, unit, or group. The worksheets in this guide might be helpful in this exercise.

One suggestion for working with frequency distributions contained in this sub-report is that the facilitator invites the group to identify percentages of 'never' responses that cause them some particular concern. These might then be ranked by the group in order of priority and as many as possible discussed in the time available.

Equally, the group can be invited to identify items with 'positive percents' in which the majority of students report that they 'very often' or 'often' engage in this activity as examples of what the institution is doing well. A discussion of how and why these positive results might have come about might then be used to determine the 'success factors' that the institution might focus on to ensure they continue support.

You can lead a discussion about whether the responses correlate with what the institution, unit, or department expected. For example, if an institution values 'career advising for later-year students', is it adequate for 30 per cent of the students at that level to report that they 'never' talked with a member of staff about career plans?

You could invite participants to explore whether the percentage distributions are appropriate for items. Invite them to discuss how the distributions differ between your institution and other groupings of the data.

You might lead group discussion on some or all of the following questions:
- What results need attention?
- What results are reflective of our institutional type?
- How does our institution compare to others?
- Are there important differences between first- and later-year responses that need to be followed up?

Report 3: Item statistics

Purpose
Analysing item statistics helps review the mean scores for each survey item and compare institutional results against the AUSSE cohort and other comparison groups.

Report overview
The item statistics report shows summary descriptive statistics for each of the AUSSE items.

Item results are provided for:
- First-year and later-year students, and for all students combined
- Your institution (the column titled INST), and for all Australian (AUS), New Zealand (NZ), Australasian (AUSTL), and US and Canadian (USCA) institutions.

Items statistics are reported in the order in which they appear on the SEQ. The reporting metric for each item corresponds to the response scale, which is shown in the report.

USCA figures are not available for all items. Results are reported for items in which the wording of certain items has been changed slightly for the Australasian context. The USCA figures for 'all students' have been computed by ACER. NSSE does not report combined year figures due to differences between these cohorts.

Statistics reported for each item include the:
- Weighted means (X)
- Weighted standard deviations (s)
- Weighted response numbers (n) in thousands (e.g. n=1.5 equals 1500 responses).

Please note that USCA raw (not weighted) numbers are also shown in thousands (r(K)) rather than units.

Effect differences are also reported. These statistics report the standardised difference between your institution's results and results of various comparison groups. Generally, an effect size of 0.2 is considered 'small', an effect size of around 0.5 'medium', and an effect size above this 'large'. All but two items on the SEQ are positively worded, such that a negative result implies that your institution is lower than the comparative group and a positive result implies that your institution is higher than the comparative group. The interpretation should be reversed for the two negatively worded items: 'Come to class without

completing readings or assignments' and 'Was unable to keep up to date with studies for work, personal or family reasons'.

A large number of comparisons could be made between AUSSE items, and many different 'statistically significant differences' could be reported. Statistical significance is a function of sample size, the level of confidence required in an inference, and variation in the phenomenon being measured. A four-point response scale is used for most items on the SEQ. The standard deviations of these average around 0.9 units on the four-point scale, implying that with a sample size of 10, a difference of 0.9 or more is likely to reflect a 'statistically significant difference' between two item means. The required difference falls to 0.4 with a sample size of 50, and 0.2 with a sample size of 200. Other SEQ items have between five and eight response categories, and the standard deviations for these lie around 1.3 units on the response scale. For these, a difference of 1.4 between item means is likely to be statistically significant with a sample size greater than 10, 0.6 with a sample size of around 50, and 0.3 with a sample size of 200.

It is important to re-iterate that as with all large-scale surveys, the AUSSE offers indicative rather than definitive evidence of the phenomena being measured. Results should be treated with caution, especially when sample sizes are small. Figure 3 presents a visual summary of these notes.

This report shows summary descriptive statistics for each item.

Item results are provided in separate tables for first-year and later-year students, and for all students combined.

USCA figures are not available for all items. Results are reported for items in which the wording of certain items has been changed slightly for the Australasian context. The USCA figures for 'all students' have been computed by ACER. NSSE does not report combined year figures due to differences between these cohorts.

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Results are given for your institution (the column titled INST), and for all Australian (AUS), New Zealand (NZ), Australasian (AUSTL) and US and Canadian (USCA) institutions.

Items are presented in the order in which they appear on the SEQ.

The reporting metric for each item corresponds to the response scale, which is shown in the report.

AUSSE 2007 Item Descriptives Report
Australasian University
— First Year Students

	INST			AUS			NZ			AUSTL			USCA			Effect differences				
	X	s	n	X	s	n	X	s	n	X	s	n	X	s	r(K)	LY	AUS	NZ	AUST	USCA
1=Never; 2=Sometimes; 3=Often; 4=Very often																				
Asked questions	2.3	0.9	2.6	2.5	0.9	56.7	2.1	0.9	115	2.4	0.9	68.2	2.7	0.9	149.1	-0.3	-0.1	0.3	-0.1	-0.5
Sought advice from academic staff	2.2	0.7	2.6	2.3	0.7	56.9	2.2	0.7	115	2.2	0.7	69.3				-0.4	0.0	0.1	0.0	
Made presentation	2.0	0.9	2.6	2.0	0.9	56.5	1.8	0.9	115	2.0	0.9	68.0	2.2	0.9	149.0	-0.5	-0.1	0.2	0.0	-0.3
Worked hard to master difficult content	2.9	0.8	2.6	2.9	0.7	56.4	2.8	0.7	115	2.9	0.7	67.9				0.0	0.1	0.2	0.1	
Prepared two or more drafts	2.3	1.0	2.6	2.2	1.0	56.8	2.3	1.0	115	2.3	1.0	68.3	2.6	1.0	149.0	-0.1	0.0	-0.1	0.0	-0.4
Used library resources on campus or online	3.1	0.9	2.6	3.2	0.9	56.7	3.0	0.9	115	3.2	0.9	68.2				-0.3	-0.1	0.1	-0.1	
Integrating from various sources	3.0	0.9	2.6	3.1	0.9	56.7	3.0	0.9	115	3.1	0.9	68.2	3.0	0.9	149.9	-0.5	-0.1	0.0	-0.1	0.0
Used student learning support services	1.8	0.9	2.6	1.9	0.9	56.7	1.6	0.9	115	1.9	0.9	68.3				0.0	-0.1	0.2	-0.1	
Blended academic learning with workplace experience	2.1	1.0	2.6	2.0	1.0	56.6	1.8	0.9	115	2.0	1.0	68.1				-0.2	0.1	0.3	0.1	
Included diverse perspectives	2.4	0.9	2.6	2.3	0.9	56.7	2.3	0.9	115	2.3	0.9	68.2	2.8	0.9	148.8	-0.1	0.0	0.1	0.0	-0.5
Not completing readings	2.0	0.8	2.6	2.1	0.8	56.7	2.1	0.9	115	2.1	0.8	68.2	2.0	0.8	148.8	-0.1	-0.1	-0.1	-0.1	0.0
Failed to keep up to date with study	1.9	0.8	2.6	2.0	0.8	56.7	1.9	0.8	115	2.0	0.8	68.2				-0.1	-0.2	0.0	-0.1	
Worked with students during class	2.1	0.9	2.6	2.2	0.9	56.7	2.1	0.9	115	2.2	0.9	68.2	2.4	0.9	148.9	-0.2	-0.1	0.0	-0.1	-0.4
Worked with students outside class	2.2	0.9	2.6	2.3	0.9	56.7	2.3	0.9	115	2.3	0.9	68.2	2.4	0.9	148.9	-0.3	-0.1	-0.1	-0.1	-0.2
Put together ideas or concepts	2.3	0.9	2.6	2.4	0.9	56.6	2.3	0.9	115	2.4	0.9	68.0	2.6	0.9	141.5	-0.4	-0.1	0.0	-0.1	-0.3
Tutored other students	1.3	0.6	2.6	1.2	0.5	56.7	1.3	0.6	115	1.2	0.6	68.3	0.7	0.9	141.6	-0.1	0.1	0.0	0.1	0.7
Participated in community-based project	1.2	0.6	2.6	1.3	0.7	56.7	1.2	0.6	115	1.3	0.6	68.2	1.5	0.9	141.5	-0.3	-0.1	0.1	-0.1	-0.4
Used an electronic medium for assignment	2.3	1.1	2.6	2.3	1.1	56.8	2.3	1.0	115	2.3	1.1	68.3	2.6	1.0	141.5	-0.1	0.1	0.0	0.1	-0.3
Used email to communicate with teaching staff	2.6	0.9	2.6	2.6	0.9	56.7	2.3	0.9	115	2.6	0.9	68.3	3.1	0.9	141.6	-0.4	-0.1	0.3	0.0	-0.6
Discussed grades with teaching staff	1.8	0.8	2.6	1.8	0.8	56.6	1.7	0.7	115	1.8	0.8	68.3	2.6	0.9	141.5	-0.2	0.0	0.2	0.0	-0.9
Talked about career plans	1.5	0.7	2.6	1.5	0.7	56.7	1.4	0.6	115	1.4	0.7	68.3	2.1	0.9	141.5	-0.3	0.0	0.1	0.0	-0.8
Discussed ideas from your classes with teaching staff	1.5	0.7	2.6	1.5	0.7	56.7	1.4	0.7	115	1.5	0.7	68.2	1.9	0.9	141.5	-0.1	0.1	0.1	0.1	-0.4
Received feedback on academic performance	2.4	0.9	2.6	2.3	0.9	56.1	2.3	0.9	113	2.3	0.9	67.4	2.6	0.9	139.1	-0.1	0.1	0.1	0.1	-0.3
Worked harder than you thought you could	2.3	0.9	2.6	2.3	0.9	56.1	2.2	0.9	112	2.2	0.9	67.3	2.6	0.9	139.1	-0.1	0.0	0.1	0.0	-0.4
Worked with teaching staff on other activities	1.2	0.6	2.6	1.2	0.6	55.9	1.2	0.6	112	1.2	0.6	67.2	1.6	0.9	139.0	-0.2	0.0	0.0	0.0	-0.5
Discussed ideas from your classes with others	2.6	0.9	2.6	2.6	0.9	56.1	2.7	0.9	112	2.6	0.9	67.3	2.7	0.9	139.0	-0.1	0.0	-0.1	0.0	-0.1
Conversations with students of different ethnic group	2.7	1.0	2.6	2.7	1.0	56.0	2.8	0.9	112	2.7	1.0	67.2	2.6	1.0	139.0	-0.1	0.0	-0.2	-0.1	0.1
Conversations with students who are very different	2.7	1.0	2.6	2.6	0.9	56.0	2.7	0.9	112	2.7	0.9	67.3	2.7	1.0	139.0	0.0	0.0	0.0	0.0	0.0

Statistics reported for each item include the weighted means (X), weighted standard deviations (s) and weighted response numbers (n) in thousands (e.g. n=1.5 equals 1500 responses). Please note that USCA raw (not weighted) numbers are also shown in thousands (r(K)) rather than units.

A large number of comparisons could be made between AUSSE items, and many different 'statistically significant differences' could be reported. Statistical significance is a function of sample size, the level of confidence required in an inference and variation in the phenomenon being measured. A four-point response scale is used for most items on the SEQ. The standard deviations of these average around 0.9 units on the four-point scale, implying that with a sample size of 10, a difference of 0.9 or more is likely to reflect a 'statistically significant difference' between two item means. The required difference falls to 0.4 with a sample size of 50, and 0.2 with a sample size of 200. Other SEQ items have between five and eight response categories, and the standard deviations for these lie around 1.3 units on the response scale. For these, a difference of 1.4 between items means is likely to be statistically significant with a sample size greater than 10, 0.6 with a sample size of around 50, and 0.3 with a sample size of 200.

It is important to re-iterate that as with all large-scale surveys, the AUSSE offers indicative rather than definitive evidence of the phenomena being measured. Results should be treated with caution, especially when sample sizes are small.

AUSSE
Australasian survey of student engagement

Figure 3   Interpretation notes for Report 3: Item level statistics report

Preparation notes

Review the item statistics report. There is a lot of information in these reports, and it may be wise to be selective in what can be discussed with session participants in the time available.

Look carefully at items with large effect sizes in the item statistics report. Make a note of these and use them to stimulate discussion with the group.

Be prepared to explain the terms 'sample weights', 'means', 'standard deviations', 'weighted response numbers' and 'effect differences'. Your university's planning, quality or statistics unit may be able to assist here.

Possible exercises

Ask the group to identify the most important items to the institution, faculty, department, unit, or group. The worksheets in this guide might be helpful in this exercise.

The group might review the results for each item and identify distinctive patterns and trends, and determine which differences appear to be of practice significance.

You can lead a discussion about whether the responses correlate with what the institution, unit, or department expected. For example, if an institution values 'engaging students in using learning resources', is it acceptable that activity may be lower on this dimension for later-year students compared to first-year students?

Invite participants to explore if the mean results, variation and group differences are appropriate for these items. Invite them to discuss how the distributions differ between your institution and other groupings of the data.

Report 4: Scale statistics

Purpose
Examination of AUSSE scale statistics helps focus discussion on the importance of student engagement and institutional improvement efforts in terms of the six defined areas of effective educational practice.

Report overview
The scale statistics report shows descriptive statistics for each of the six AUSSE scales.

Scale results are provided for:
- First-year and later-year students, and for all students combined
- Your institution (the column titled INST), and for all Australian (AUS), New Zealand (NZ), Australasian (AUSTL), and US and Canadian (USCA) institutions.

The USCA figures for all students have been computed by ACER. NSSE does not report combined year figures due to differences between these cohorts in the USA context. All AUSSE and NSSE scales contain the same items, except for the omission of a single item about independent study and self-designed majors, which was not included in the SEQ. Unlike NSSE, AUSSE Academic Challenge scale results are not adjusted for attendance type. No NSSE results are available for the Work Integrated Learning scale, which is unique to the AUSSE.

Scale scores are calculated by converting item scores onto a metric running from 0 to 100 then taking the mean of items within each scale. While not the most psychometrically effective approach, this scoring algorithm is transparent, parsimonious and facilitates reporting.

Statistics reported for each scale include the:
- Weighted means (X)
- Weighted standard deviations (s)
- Weighted response numbers (n) in thousands (e.g. n=1.5 equals 1500 responses).

Please note that USCA raw (not weighted) numbers are also shown in thousands (r(K)) rather than units.

The scale means are graphed with 95 per cent confidence intervals. These have been adjusted for the multiple comparisons made during interpretation of the graphical information. See Figure 4 for further details.

This report shows descriptive statistics for each of the six AUSSE scales.

Scale scores are calculated by converting item scores into a metric running from 0 to 100, then taking the mean of items within each scale. While not the most psychometrically rigorous approach, this scoring algorithm is transparent, parsimonious and facilitates reporting.

Scale results are provided in separate tables for first-year and later-year students, and for all students combined.
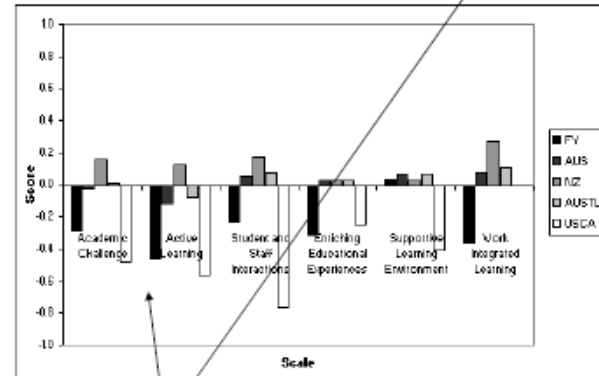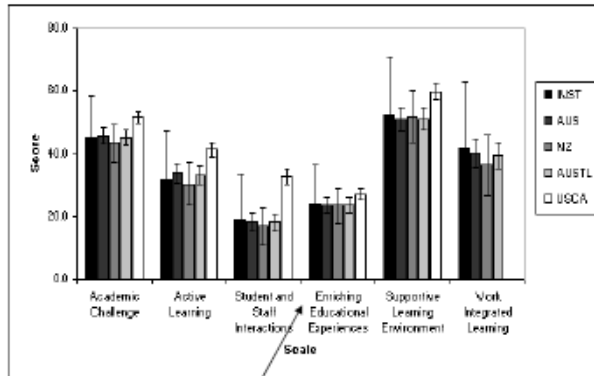
Results are provided for your institution (the column titled INST), and for all Australian (AUS), New Zealand (NZ), Australasian (AUSTL) and US and Canadian (USCA) institutions.

Please note that USCA raw (not weighted) numbers are also shown in thousands (r(K)) rather than units.

The USCA results reported in the 'all students' table have been computed by ACER. NSSE does not report combined year figures due to differences between these cohorts in the USA context. All AUSSE and NSSE scales contain the same items, except for the omission of a single item about independent study and self-designed majors, which was not included in the SEQ. Unlike NSSE, AUSSE Academic Challenge scale results are not adjusted for attendance type. No NSSE results are available for the Work Integrated Learning scale, which is unique to the AUSSE.

AUSSE 2007 Scale Descriptives Report
Australasian University
First Year Students

Statistics reported for each scale include the weighted means (X), weighted standard deviations (s) and weighted response numbers (n) in thousands (e.g. n=1.5 equals 1500 responses).

	INST			AUS			NZ			AUSTL			USCA			Effect differences				
	X	s	n	X	s	n	X	s	n	X	s	n	X	s	r(K)	LY	AUS	NZ	AUSTL	USCA
Academic Challenge	45.4	12.9	2.6	45.6	12.2	56.0	43.4	12.3	11.2	45.2	12.3	67.2	51.8	13.3	136.5	-0.3	0.0	0.2	0.0	-0.5
Active Learning	32.1	15.0	2.6	33.8	14.2	56.8	30.4	14.0	11.5	33.2	14.2	68.3	41.3	15.2	149.4	-0.5	-0.1	0.1	-0.1	-0.6
Student and Staff Interactions	19.1	14.2	2.6	18.4	13.5	56.2	16.9	12.2	11.3	18.1	13.2	67.4	32.8	17.8	138.3	-0.2	0.1	0.2	0.1	-0.8
Enriching Educational Experiences	23.8	12.1	2.6	23.6	11.8	55.5	23.5	11.3	10.9	23.5	11.8	66.4	27.1	13.1	133.1	-0.3	0.0	0.0	0.0	-0.2
Supportive Learning Environment	52.3	17.9	2.5	51.0	17.1	55.0	51.8	16.5	10.6	51.2	17.0	65.6	59.9	18.6	130.3	0.0	0.1	0.0	0.1	-0.4
Work Integrated Learning	41.7	20.8	2.6	40.1	21.0	55.5	36.3	19.6	10.9	39.5	20.9	66.3				-0.4	0.1	0.3	0.1	

A large number of comparisons could be made between AUSSE scales, and many different 'statistically significant differences' could be reported. Statistical significance is a function of sample size, the level of confidence required in an inference and variation in the phenomenon being measured. The standard deviations of these scales range from 10 to 20 on the reporting scale, with an average of 15. As a guide, a difference of around 15 or more would likely be statistically significant with a sample size of 10, a difference of 7 or more with a sample size of 50, a difference of 5 or more with a sample size of 100, and a difference of 3.5 or more with a sample size of 200.

The scale means are graphed with 95 per cent confidence intervals. These have been adjusted for the multiple comparisons made during interpretation of the graphical information.

Effect differences are also reported in both tabular and graphical format. These statistics report the standardised difference between your institution's results and results of various comparison groups. Generally, an effect size of 0.2 is considered 'small', an effect size of around 0.5 'medium' and an effect size above this 'large'. All AUSSE scales are positively worded, such that a negative result implies that your institution is lower than the comparative group and a positive result implies that your institution is higher than the comparative group.

It is important to re-iterate that as with all large-scale surveys, the AUSSE offers indicative rather than definitive evidence of the phenomena being measured. Results should be treated with caution, especially when sample sizes are small.

Australasian survey of student engagement

AUSSE

Figure 4   Interpretation notes for Research Report 4: Scale level statistics report

Effect differences are also reported in both tabular and graphical format. These statistics report the standardised difference between your institution's results and results of various comparison groups. Generally, an effect size of 0.2 is considered 'small', an effect size of around 0.5 'medium', and an effect size above this 'large'. All AUSSE scales are positively worded, such that a negative result implies that your institution is lower than the comparative group and a positive result implies that your institution is higher than the comparative group.

A large number of comparisons could be made between AUSSE scales, and many different 'statistically significant differences' could be reported. Statistical significance is a function of sample size, the level of confidence required in an inference, and variation in the phenomenon being measured. The standard deviations of these scales range from 10 to 20 on the reporting scale, with an average of 15. As a guide, a difference of around 15 or more would likely be statistically significant with a sample size of 10, a difference of 7 or more with a sample size of 50, a difference of 5 or more with a sample size of 100, and a difference of 3.5 or more with a sample size of 200.

It is important to re-iterate that as with all large-scale surveys, the AUSSE offers indicative rather than definitive evidence of the phenomena being measured. Results should be treated with caution, especially when sample sizes are small.

Preparation notes

Review the scale statistics section of your AUSSE Institution Report. Make a note of areas of small and large difference. Examine and note particular patterns between various scales.

Identify scores, patterns and trends that might be of greatest interest to the institution given its mission and goals or to the particular group attending the session. Consider presenting these separately to participants as a way to capture their interest.

It might help to prepare and distribute a short summary of the focus of each scale, and a list of the survey items that contribute to the scale (a list is located on page 40 of the Institution Report).

Be prepared to explain the terms 'sample weights', 'means', 'standard deviations', 'confidence intervals', 'weighted response numbers' and 'effect differences'. Your university's planning, quality or statistics unit may be able to assist here.

The comparative data are intended to help institutions determine if the engagement of their typical student differs in a statistically significant and meaningful way from the average students in various comparison groups.

Possible exercises

Discuss some of the following questions:
- What patterns emerge from the scale results?
- What was surprising about the results?
- Which areas appear to be the areas of strength?
- Which areas need improvement?
- What assumptions about the university were confirmed or refuted?
- How does our institution perform, given our student and institutional characteristics?
- How does our institution compare, given our student and institutional characteristics?
- What are the important differences between first-year student responses and later-year student responses?

Worksheet 1

Predicting AUSSE scale results

This exercise is designed to facilitate consideration and discussion of the quality of the student experience from the perspective of staff, compared to the perspective of students.

The six AUSSE scales are listed below. Select a scale of interest. You can record what you predict the combined score out of 100 will be. Similarly, you can record what you would prefer this score to be. Comparisons of your predictions and preferences to actual AUSSE results are then possible. You will need to refer to your AUSSE Institution Report to complete the exercise.

Consider what the gaps between student responses and your predictions and preferences reveal about the quality of the student experience at your institution in relation to the particular scale you have chosen. What ideas might you have to address some of these gaps?

Student Engagement Questionnaire scales	Percentage of 'often' and 'very often' responses		
	Prediction	Preference	Actual
Active Learning			
Student and Staff Interactions			
Academic Challenge			
Enriching Educational Experiences			
Supportive Learning Environment			
Work Integrated Learning			

Worksheet 2

Predicting AUSSE item results

This exercise is designed to facilitate consideration and discussion about the quality of the student experience from the perspective of staff, compared to the perspective of students.

Items from the first section of the AUSSE are listed below.[4] Select several items of interest from the table. You can use this worksheet to record what you predict the combined percentage of responses that say 'often' and 'very often' will be. Similarly, you can record what you would prefer this percentage to be. Comparisons of your predictions and preferences to actual AUSSE results are then possible. You will need to refer to your AUSSE Institution Report to complete the exercise.

Consider what the gaps between student responses and your predictions and preferences reveal about the quality of the student experience at your institution. What ideas might you have to address some of these gaps?

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[4] Items used with permission from The College Student Report, National Survey of Student Engagement, Copyright 2001–07, The Trustees of Indiana University. Items adapted and validated for Australasia by the Australian Council for Educational Research (ACER).

Student Engagement Questionnaire items	Percentage of 'often' and 'very often' responses		
	Pre-diction	Pre-ference	Actual
Asked questions in class or contributed to online discussions			
Sought advice from academic staff			
Made a class or online presentation			
Worked hard to master difficult content			
Prepared two or more drafts of an assignment before handing it in			
Used library resources on campus or online			
Worked on an essay or assignment that required integrating ideas or information from various sources			
Used student learning support services			
Blended academic learning with workplace experience			
Included diverse perspectives (different races, religions, genders, political beliefs, etc.) in class discussions or written assignments			
Come to class without completing readings or assignments			
Was unable to keep up to date with studies for work, personal or family reasons			
Worked with other students on projects during class			
Worked with other students outside class to prepare assignments			
Put together ideas or concepts from different subjects when completing assignments or during class discussions			
Tutored or taught other university students (paid or voluntary)			
Participated in a community-based project (e.g. volunteering) as part of your study			
Used an electronic medium (e.g. Blackboard or WebCT) to discuss or complete an assignment			
Used email to communicate with teaching staff			
Discussed your grades or assignments with teaching staff			
Talked about your career plans with teaching staff or advisors			
Discussed ideas from your readings or classes with teaching staff outside class			
Received prompt written or oral feedback from teachers on your academic performance			
Worked harder than you thought you could to meet a teacher's standards or expectations			
Worked with teaching staff on activities other than coursework (committees, orientation, student organisations, etc.)			
Discussed ideas from your readings or classes with others outside class (students, family members, co-workers, etc.)			
Had conversations with students of a different ethnic group than your own			
Had conversations with students who are very different from you in terms of their religious beliefs, political opinions or personal values			