

2. A Guide to Interpreting the Graduate Opinion Survey

The following is a short guide to the methodology and interpretation of information from the University's Graduate Opinion Survey

Background Information

The first University of Otago Graduate Opinion Survey was undertaken in 1995, asking all students who graduated in 1993 to assess the quality of their University experience. A revised survey took place in 1998, following a review of all aspects of the survey process by a Student and Graduate Opinion Surveys Working Party. This survey sampled graduates from 25% of the University's degree and diploma programmes. In 2015 the sampling methodology was once again changed, this time to a full census; 2022 is the eighth year in which this methodology has been used.

The 2022 Graduate Opinion Survey contacted graduates who completed their qualification requirements in 2020.

Survey Structure

Although refined and expanded specifically for Otago, this survey draws on similar exercises in Australia and the UK. The survey contains sections dealing with the following:

- Course Experience (measured by the Course Experience Questionnaire and supplemented by Postgraduate Taught Experience Organisation and Management and Student Engagement scales)
- Postgraduate Supervision and Support (measured by the Postgraduate Taught Experience and Postgraduate Research Experience Questionnaires)
- Course Outcomes (measured by the Course Outcomes Questionnaire).

Course Experience

The core instrument of this survey is the Course Experience Questionnaire (CEQ). Directed at those undertaking course work as part of their study, the CEQ groups questions into a number of scales in order to measure graduate assessment of the following:

- Quality of teaching (The Good Teaching Scale)
- Clear goals and standards (The Clear Goals and Standards Scale)
- Intellectual motivation (The Intellectual Motivation Scale)
- Assessment methods (The Appropriate Assessment Scale)
- Acquisition of general competencies (Generic Competencies Scale)
- Overall satisfaction with course (Overall Satisfaction Item).

These scales were derived from the extensive literature on student evaluation of learning. The statements in the CEQ are based on comments that students often make about their experiences of university teaching and study which are indicative of better learning. The emphasis of this questionnaire is on graduates' perceptions of their entire course of study. The results are the "averages" of graduates' experiences.

After consultation with the Graduate Careers Council of Australia, a decision was made to alter the calculation of the Appropriate Assessment scale from the 2003 survey onwards, in line with current Australian practice. Item B23 (*Feedback on student work is usually provided ONLY in the form of marks and grades*) is no longer included in the calculation of the Appropriate Assessment mean. Individual results for Item B23 are recorded for information purposes only.

It is important to stress that, like most performance indicators, the CEQ results are indicative rather than conclusive. Interpretation of the results within particular teaching contexts includes an element of informed judgement, and extreme caution is required when attempting to make comparisons with results either between groups of graduates or between different fields of study. See the final section of this guide for further information on the interpretation of results.

In 2016, questions were added regarding course organisation/management and student engagement, utilising the Postgraduate Taught Experience Survey (PTES) scales. New open-ended questions allow graduates to comment on course experience issues. Two new items at the end of this section ask graduates what they would improve about their University course and then to describe their best experience.

Postgraduate Supervision and Support

In 2011 two additional questionnaires were added to the survey, one addressing postgraduate degrees with a coursework component, the Postgraduate Taught Experience Survey (PTES), and the other, the Postgraduate Research Experience Survey (PRES), addressing postgraduate degrees with a thesis component. These questionnaires replaced the postgraduate section of the Graduate Opinion Survey questionnaire.

Both questionnaires contain a set of questions which map onto scales measuring graduates' assessment of their experience:

The Postgraduate Taught Experience Survey (PTES) contains the following scales:

- Quality of Supervision Scale
- Learning Resources Scale
- Career and Professional Development Scale
- Overall Satisfaction Scale.

The Postgraduate Research Experience Survey (PRES) contains the following scales:

- Quality of Supervision Scale
- Skills Development Scale
- Infrastructure Scale
- Intellectual Climate Scale
- Goals and Standards Scale
- Professional Development and Career Scale
- Roles and Responsibilities Scale.

In 2016, the PRES was revised to understand teaching and research opportunities in greater detail. Several new open-ended questions have also been added to the PRES and PTES to encourage graduates to comment on postgraduate support.

Course Outcomes

Graduates were also asked to assess the extent to which they developed a number of generic attributes, or life-long learning skills, through their study and the extent to which they have subsequently applied these. This information assists in assessing the extent to which the University is providing graduates with the skills and attributes they require after the completion of their studies.

In 2013, five new attributes were introduced in this section of the survey to better reflect the content of the University of Otago Graduate Profile. The five attributes were: a global perspective, cultural understanding, environmental literacy, research skills, and information literacy.

In 2016 two new attributes were included—specialist knowledge and leadership—and the introduction of a question gauging the awareness of the University profile and attributes.

Statistical Information

Graduates were asked to supply personal details covering such characteristics as gender, disability and ethnicity. This enabled analysis by particular categories of graduate. Note however, that when data was analysed based on some of these categories, it was not possible to give the number of graduates surveyed (or the response rate), as this would have required knowledge of the self-identification traits of those graduates who did not respond.

In 2016, additional information was requested, including, parents' level of education and family attendance at the University; home country and current area of residence; likelihood of recommending the University; further employment details; internships, work experience, and similar activities; and scholarships.

Open-ended Comments

Respondents were also provided with the opportunity to make written comments. The comments are provided word-for-word to academic units, except where such comments identify an individual student, a member of staff (negatively) or are deemed offensive. While the comments are carefully screened, this part of the process is fallible.

Sampling Methodology and Response Rates

All graduates who completed their qualification requirements in 2020 were contacted.

Information from groups for which the response rate is less than 30% is excluded from summary reports produced for general circulation. The same is true for groups of fewer than 10 respondents, except where the response rate for such a group is at least 75%.

Reports from these groups are supplied to Academic Units for internal use, but caution is advised in the use of information from such reports. No reports are supplied for groups where responses are fewer than five.

Presentation of Results

Results are broken down to the level of degree/diploma/certificate and major for the Graduate Opinion Survey. This allows the distribution of relevant material to the appropriate Heads of academic unit and course coordinators. Open-ended comments assembled at the level of academic unit are included in these reports.

A Summary Report is produced, which includes:

- Responses to all questions for all graduates
- CEQ scale results for departments and qualifications meeting the report requirements detailed in the section above
- Results for special interest groups (*e.g.* Māori, International graduates)
- Course Outcomes questions results for academic units and qualifications meeting the report requirements detailed in the section above.

The Summary Report does not include any open-ended comments.

Calculation of Means

The University of Otago surveys follow the Australian model in the use of a recoded mean. This transforms responses on the 1 - 5 scale into a scale ranging from +100 to -100. On this scale, zero represents an overall neutral response, any negative number a generally undesirable response, and any positive number a generally desirable response.

For example, the following illustrates the calculation of a recoded mean for 10 graduates:

	Very Satisfied/ Strongly Agree		Neutral		Very Dissatisfied/ Strongly Disagree
<i>Standard Scale</i>	1	2	3	4	5
Responses Received	3	4	1	2	0
<i>Recoded Scale</i>	+100	+50	0	-50	-100
Recoded Mean: [(=responses x recoded scale)]/total responses = [(3x100)+(4x50)+(1x0)+(2x-50)+(0x-100)]/10 = 40					

Where a question is framed in a negative way, the recoded mean is calculated using the same formula but with the values reversed (*i.e.* the recoded scale ranges from -100 for a response of 1, to +100 for a response of 5).

Standard deviations are not usually presented, but these generally fall in the range 20 - 40 for each question. Australian experience with the CEQ portion of the survey instrument suggests that differences of more than 0.3 standard deviation units (a difference of approximately 15 points between means) can be considered significant in terms of identifying areas worthy of further consideration. Less conservative analysts may wish to lower this threshold to 0.2 (a difference of approximately 10 points between means), while a more conservative approach would be a 0.5 threshold (a difference of approximately 25 points between means).

Presentation of Course Outcomes Results

Responses to the Course Outcomes section of the survey are displayed as mean scores corresponding to the development and application of each attribute for the group studied. This form of presentation enables readers to determine the extent to which attributes developed to a certain level through University study have then been applied by graduates in their post-graduation employment, further study or other experiences.

To facilitate the interpretation of these results, attributes have been classified in four categories for each group studied. The classification is based on how a particular attribute is rated compared with the overall development or application median for the group being studied (*i.e.* an attribute that has been developed higher than the overall development median for the group studied will be classified as High Development). If its application score is below the overall application median for the group, it will then be considered as being Low Application and will therefore be classified as a High Development/Low Application attribute.

High Development/ High Application Items

Attributes in this category are those that were most highly developed during study and most highly applied subsequently.

Low Development/ High Application Items

Attributes appearing in this category are those that were highly applied after study but not as highly developed during study as those appearing in the High development/ High Application category.

Attributes appearing in this category could warrant greater teaching emphasis, although when undertaking this analysis it is important to take account of the size of the development mean for each attribute. For example, an item in this category with a development mean of -5 would be of greater concern than an item with a development mean of +40.

Low Development/ Low Application Items

Attributes appearing in this category are those that have been developed to a lesser extent during study and are not being applied to such a high extent subsequently.

High Development/ Low Application Items

Attributes appearing in this category are those that have been highly developed during study but are not being applied at such a high degree subsequently.

Interpretation of Results

Use of Comparative Information

Weighted means for a sample group is accompanied by comparative means on the summary tables. These allow for comparison with previous results for the same or a similar group of students. Comparisons with the same course of study at the same institution, have been found to be the most reliable source of comparative data and should be given the greatest weight in any comparative analysis.

It is important to realise, however, that caution is required in the use of comparative information.

Australian research on the CEQ suggests, for example, that students from some disciplines will judge some items on the CEQ more harshly than others. Variations have also been observed between institutions. As a result, the ranking of results - either by discipline for different institutions, or across disciplines within an institution - to create 'league tables' should be avoided.

The most reliable source of comparative information has been found to be that from earlier surveys of students undertaking the same course of study at the same institution. Where this information has been provided, it is this which should be given the greatest weight in any comparative analysis.

Tips for Interpretation

Having assessed the information provided in the General Profile of Respondents section, a useful first step to interpretation is to scan the subsequent section of each report, identifying those questions or scales where the mean is least positive. A second step is to identify those questions or scales where the mean for the group you are examining is notably different (see Calculation of Means section above) from those supplied in the comparative tables.

These questions or scales should be the primary focus of attention.

Further information

If you have questions about the survey's methodology, interpretation of the results or other questions, please contact the Surveys Manager, Quality Advancement Unit (qual.surveys@otago.ac.nz).

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