

## Using qualitative data to prove and improve quality in Australian higher education

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### **Abstract**

*Many performance indicators in Australian higher education are based on the quantitative data from student feedback surveys, while the qualitative data usually generated by these surveys receive relatively limited attention. This paper argues that these data, if collected and analysed in a systematic way, can be used as an effective and robust institutional performance indicator and can assist the process of quality improvement.*

*The paper describes a comparative analysis of qualitative data generated at a large metropolitan multi-campus university by three key student surveys in 2006. These surveys track students' and graduates' experience of their individual subjects, their course and overall experience of their University. In total, about 108,000 student open-ended comments have been analysed and compared with the 280,000 comments from 14 other universities.*

*The results, obtained via CEQuery – a software tool that facilitates analysis of the written comments, were benchmarked and interpreted, and have allowed the University to identify key areas of student experience that warrant an intensified improvement focus. Further, the paper provides examples on how the University uses the data.*

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### **Introduction**

Many learning and teaching performance indicators in Australian higher education are largely based on quantitative data and the psychometric properties of the instruments used to gather these data, with the units of analysis typically revolving around closed-ended Likert-style questions. One of the areas for improvement of such surveys highlighted by Scott (2006) is to make better use of the qualitative data usually generated by them. At present such data receive comparatively limited attention. When they are mentioned in research reports on learning and teaching in higher education, it is often from the point of view of processing difficulties, particularly from the viewpoint of the vast resource requirements needed to analyse such data (Bolden & Moscarola, 2000; Richardson, 2005). Generally, the use of these data is limited to the private interpretations made by the individual academic, and they have been little studied in a systemic way.

At the same time these qualitative data seem to be a lot richer than expected. For example, an analysis of the business graduate comments by Kabanoff, Richardson and Brown (2003) suggests that there are recurring themes regarding various aspects of the course which are untapped in existing evaluations of university experience. Current research indicates that some closed-ended survey items, even if based on extensive psychometric studies, may not cover issues that are really important for students because they may reflect a teacher-centred or researchers' preconceived framework (Bolden & Moscarola, 2000; Kabanoff, Richardson, & Brown, 2003; Scott, 2006). For example, the Course Experience Questionnaire (CEQ) is based on decades of research and refinement, and is fully evaluated from the psychometric point of view (Graduate Careers Council of Australia, 2004, 2005). However, reviewing

the validity and coverage of its core items Scott (2006) concludes that all three CEQ items in the Assessment Scale focus on one aspect of assessment while the post-questionnaire student comments highlight many others. On further investigation the open-ended comments are likely to identify reasons for statistical results which may be different from what researchers assume (Palermo, 2003; Scott, 2006). Thus, to be successful, it is suggested that universities focus more on what students have to say in their own words and incorporate such feedback into their priorities (Symons, 2006a, 2006b; Poindexter, 2006). Further, it is suggested that tailoring survey contents to what students themselves find highly important should be considered (Scott, 2006). In any case, the quantitative and qualitative data should complement each other as together they cover a broader range of student views on their university experience.

In this context, since 2006 all student surveys used at one large metropolitan multi-campus University, from those covering the overall experience at the University level, then the particular course or program, down to surveys of specific subjects, invite respondents to answer two questions in their own words: 'What were the best aspects of your course/unit?' and 'What aspects of your course/unit are most in need of improvement?'. The written comments are automatically classified by the *CEQuery* qualitative analysis tool, described later in the paper, into five main domains and 26 subdomains (Attachment 1). The *CEQuery* results are integrated into consolidated Annual Course and Unit Reports in order to better identify key 'hot spots' for improvement and actual solutions from the student perspective to these improvement priorities. The high importance areas are also used in course accreditation and review, and to validate rating items on surveys.

This paper provides a comparative analysis of qualitative data generated at the University by three key student surveys conducted in 2006. (A) The first of these surveys covers the total university experience and is completed by current students; (B) the second – the national CEQ is focused on the course experience and is completed by graduating undergraduate and postgraduate course work students; and (C) the third gathers feedback from students on the individual subjects in which they are enrolled each semester.

The principal objective of the paper is to share the University's experience in the systematic analysis of the qualitative data from student feedback surveys using *CEQuery*. It will show how the data are collected and analysed, how the results are benchmarked and interpreted, and how the University uses them to improve the quality of the student experience and retention.

Please note that the data are not the actual data from the University concerned. They are, however, indicative of the patterns found not only at the University concerned but in the national study of data from 14 Australian universities (Scott, 2006).

## **Method**

### ***Participants and procedure***

The participant pool for the survey covering the overall University experience comprised a representative sample of almost 3,500 students. The majority of respondents were undergraduate students at the bachelor level of study. The response sample was representative of the University's profile in terms of gender, age, college, level of study, campus, Aboriginal or Torres Strait Islander descent, medical condition, payment mode, and language background. The respondents made some 9,400 'best aspect' (BA) and 'needs improvement' (NI) written comments about their university experience.

Similarly representative of the University's profile was the sample of almost 2,800 graduates who participated in the national CEQ completed in 2006. They made more than 4,200 BA and NI written comments.

The survey which evaluates individual subjects each time they are offered is sent to approximately 200,000 students each year. The response rate in 2006 was about 57%. Again the response sample was representative of the University's profile as a whole. The majority of respondents were undergraduate students at the bachelor level of study. Respondents made nearly 95,000 BA and NI comments on the subjects they were taking.

### ***Survey instruments***

The first of three survey tools discussed in this paper (A) surveys students views on their total university experience. It builds on tools now used at a range of Australian universities. Students rate a set of 85 items, covering the full spectrum of academic and general services and facilities, first on their importance and then on their performance, using a five-point Likert-style scale (1 – low to 5 – high). The items cover various aspects of teaching and learning, administration, all student services, learning resources and general facilities.

The second tool (B) is the national Course Experience Questionnaire. This instrument aims to measure graduate perceptions of various aspects of the course they have just completed. Participants are asked to indicate the extent to which they agree or disagree with each of 25 statements using a five-point Likert-style scale, where 1 represents strong disagreement and 5 – strong agreement. The items cover such areas of course experience as quality of teaching, clarity of learning objectives and the standards of work expected, learning support, course outcomes and so on.

The third survey (C) was internally developed at the University in 2005. It seeks student feedback on the quality of their experience with the individual subjects in which they are enrolled each semester. The survey comprises about a dozen items relating to the quality of individual subjects, including their content and relevance, assessment, learning environment, learning experience and outcomes, and workload. Similar to the other surveys outlined above, each item is ranked by students on a five-point Likert scale where 1 represents strong disagreement and 5 – strong agreement.

At the end of all the above surveys respondents are asked to provide comments on the best aspects of the University's performance, and on those most needing improvement.

### ***CEQuery***

*CEQuery* is a software tool that facilitates analysis of the written comments on the CEQ and any other student feedback surveys. The comments are initially grouped under a set of BA and NI headings.

*CEQuery* allocates comments to 26 subdomains, which are grouped into the broad domains of Assessment, Course Design, Outcomes, Staff and Support, using a custom-tailored dictionary. The term 'hit' indicates that the software has recognised a comment (or a relevant section of a comment) as belonging to a specific *CEQuery* subdomain and placed it accordingly. The hit rate of this tool is about 80% and the allocation accuracy is about 90%.

The total number of 'hits' (BA + NI) for each domain and subdomain is taken to be a proxy measure of perceived importance. This is because it is assumed that, if students choose to write (positively or negatively) about an aspect of their university experience in an open ended comment it must be of importance to them. It is also assumed that the odds of students making a BA comment (BA/NI) is a proxy measure of perceived quality. For example, when the ratio of BA to NI comments in a

subdomain is 2.0 it means that there are twice as many ‘best aspect’ comments as ‘needs improvement’ comments. When the ratio is 0.5, it means that there are half as many ‘best aspect’ comments as there are ‘needs improvement’ comments. A large number of Australian universities are now using *CEQuery* and these assumptions have been generally endorsed at workshops with them, as well as at a wide range of national and international conferences.

The *CEQuery* domains and subdomains are given in Attachment 1. They have been found to be a very useful guide to identifying key quantitative tracking items in feedback surveys; as one way to validate the relative importance of items at each university by looking at the comparative importance and quality results for that university. They have also been used to ensure that learning program design and support in universities covers what counts for engaging students in productive learning and retaining them.

Overall studies of hundreds of thousands of comments using *CEQuery* at a wide range of universities (Scott, 2006) have identified a set of quality tests for student engagement and retention which align with the results for the University which is the subject of the current case-study. These findings indicate that higher education students are more likely to engage in productive learning and be retained if their university experience and learning programs implement the following ‘RATED CLASS A’ quality checkpoints. Students look for learning programs, experiences and support systems which:

- R are relevant;
- A involve active, problem based learning, with opportunities for peer support;
- T consistently link theory with practice;
- E provide clear management of student expectations;
- D have a clear direction and are mutually reinforcing;
  
- C focus on the capabilities that count for effective early career or disciplinary success in the area being studied;
- L comprise flexible learning pathways, including sub-majors and electives;
- A have assessment systems with clear expectations on what is required from the outset, prompt and constructive feedback on performance, fair marking and high standards;
- S have staff (both academic and administrative) who are consistently accessible, interested in them, responsive, knowledgeable, up-to-date and who can teach;
- S have efficient, easily accessed and responsive learning support, library and administrative systems;
  
- A have learning times and locations which make participation as easy as possible.

These studies consistently show that it is the total university experience that engages and retains students, not simply what happens in the traditional classroom. They emphasise that teaching is not learning, but it is just one component of a much larger learning design. They show that learning is a profoundly social experience in which the peer group plays a key role and raise the need for more consistent research on exactly how various forms of IT-enabled learning do and do not add value as part of a broader learning design.

### **Indicative case study**

#### ***Relative importance of different aspects of the student experience***

Table 1 presents the rank order of the overall number of hits (a proxy measure of importance) for each of the *CEQuery* subdomains ranked from 1-highest to 26-lowest in the three surveys. Only the comments that could be categorised by *CEQuery* are counted in the table.

**Table 1: CEQuery Subdomain Hits and Ranks across Three Levels of Student Experience**

<i>CEQuery</i>		Total experience		Course level		Subject level	
Domains	Subdomains	Hits	Rank	Hits	Rank	Hits	Rank
Assessment	Expectations	79	19	114	17	2862	10
	Feedback	91	18	78	20	1412	14
	Marking	37	22	65	22	869	18
	Relevance	39	21	75	21	1184	16
	Standards	126	16	146	15	2973	9
Course Design	Flexibility	458	7	448	4	4178	5
	Methods of L & T	338	9	578	3	15871	1
	Practical-Theory Links	61	20	89	18	605	19
	Relevance	127	15	215	10	3082	7
	Structure	207	12	254	8	3079	8
Outcomes	Further Learning	23	24	3	26	43	26
	Intellectual	100	17	148	14	2057	12
	Interpersonal	35	23	41	23	258	20
	Knowledge/Skills	130	14	196	12	2341	11
	Personal	10	26	31	25	215	22
	Work Application	137	13	203	11	910	17
Staff	Accessibility & Resp.	583	5	592	2	3811	6
	Practical Experience	12	25	41	24	113	24
	Quality & Attitude	594	4	787	1	7611	3
	Teaching Skills	292	11	405	5	4480	4
Support	Infrastructure	1621	1	251	9	1398	15
	Learning Resources	618	3	255	7	7884	2
	Library	1178	2	180	13	150	23
	Social Affinity	481	6	316	6	1521	13
	Student Administration	410	8	128	16	242	21
	Student Services	312	10	84	19	69	25

In this case example, the five highest ranking *CEQuery* subdomains for each survey are highlighted blue. The results show that, in terms of the total university experience, three learning support areas – infrastructure, library and learning resources are most important for students, followed by two staff subdomains: quality and attitude, and accessibility and responsiveness. It is important to note that the 6<sup>th</sup> highest ranking area on importance in the total experience survey is social affinity – which includes comments about the importance of one’s peer group in assisting learning and retention, and the extent to which the overall university environment is welcoming.

The highest ranking subdomains on importance at the course and subject levels are very similar – they include staff quality and attitude; staff teaching skills; a wide variety of learning methods and the flexibility of course design. The learning resources area is in the top 5 at the subject level and ranked 7<sup>th</sup> at the course level. As already noted it is ranked 3<sup>rd</sup> in the university level survey. The lower number of hits for the library at the course and unit level can be explained by the different focus of these surveys. Staff accessibility is ranked consistently high on importance in all three levels of survey.

The pattern in these results confirms that it is the total experience that counts for students and that learning is not teaching. A detailed study of the BA comments in the course design: methods subdomain has identified some 60 active learning methods which are productive in different combinations depending on the field of education, level of study and group concerned. This analysis also shows that traditional lectures and class-based methods do have a role to play (for example, to give an overview of how a course or subject works, to present the key findings from recent research) but must always be seen as just one of the options, not the sole one.

Consistent with our national studies the assessment domain attracts relatively fewer comments but, as we shall see, when students do comment it is typically about a need for improvement. It is important to note that, in Table 1, as the survey gets closer to the specific subject level the number of comments about assessment increases for all the assessment sub-domains.

***Relative quality rankings per CEQuery subdomain: The ratios of BA to NI comments***

Table 2 presents the ratios of ‘best aspect’ to ‘needs improvement’ comments within each *CEQuery* subdomain. This, as noted earlier, is seen to be a proxy measure of perceived quality and the ratio values are ranked from 1-highest to 26-lowest for each of the three surveys. The five highest ranking subdomains suggest areas of good practice and are highlighted blue. The five lowest ranking areas are highlighted in red, and indicate potential areas for improvement attention. These are generally the same as those identified in broader national studies and workshops at other universities using *CEQuery* (Scott 2006).

Generally odds of a BA comment that are greater than 3:1 indicate an area of good practice. Those around 1:1 indicate patchy practice and suggest possibilities for benchmarking for improvement. Those below 0.7 (i.e. odds of 7 in 10 that a comment will be BA) suggest a potential area for systematic improvement.

Consistent with all previous studies it is the outcomes domain that attracts the highest rankings on quality. The staff domain continues to attract patchy results (i.e. odds of around 1:1) in all of the institutions studied. This indicates potential for improvement benchmarking where BA comments in each staff subdomain are shared with all teaching staff as a practical guide on how to further enhance their practice.

**Table 2: CEQuery Subdomain BA/NI Ratios and Ranks across Three Levels of Student Experience**

CEQuery		Total experience		Course level		Subject level	
Domains	Subdomains	BA/NI	Rank	BA/NI	Rank	BA/NI	Rank
Assessment	Expectations	0.4	22	0.2	24	0.3	26
	Feedback	0.1	26	0.1	26	0.4	25
	Marking	0.2	25	0.2	25	0.5	24
	Relevance	1	12	1.7	8	3.7	15
	Standards	0.3	23	0.3	23	0.7	20
Course Design	Flexibility *	1	11	1.1	12	3.7	14
	Methods of L & T *	0.7	17	1.9	7	3.4	16
	Practical-Theory Links	0.9	15	1.1	13	6.6	9
	Relevance	0.6	20	1	14	5.6	12
	Structure	0.3	24	0.5	19	0.6	23
Outcomes	Further Learning	22.1	1	2.1	6	42.1	2
	Intellectual	2.5	3	20.1	1	32.8	3
	Interpersonal	2.2	5	4.8	3	12	6
	Knowledge/Skills	9.1	2	4.2	4	9.1	8
	Personal	0.9	14	9.1	2	214.1	1
	Work Application	1.6	7	0.9	15	15.3	4
Staff	Accessibility & Resp. *	1.3	8	1.6	10	6.1	10
	Practical Experience	1.2	10	1.6	9	15.1	5
	Quality & Attitude *	0.5	21	1.5	11	10.9	7
	Teaching Skills *	2.2	6	0.7	17	4.7	13
Support	Infrastructure *	0.7	18	0.5	20	0.6	21
	Learning Resources *	0.8	16	0.6	18	1.1	18
	Library *	2.4	4	0.7	16	0.8	19
	Social Affinity	0.9	13	3	5	3.1	17
	Student Administration	0.6	19	0.3	22	0.6	22
	Student Services	1.3	9	0.3	21	5.9	11

\* 'High-hit' subdomains

Similarly, consistent with previous local and national analyses it is the assessment domain (with the exception of relevance) that continues to attract the highest proportion of NI comments (Scott 2006). This indicates an area for national attention and has important implications for the 2008 Australian Higher Education Review which may wish to look in more detail at what, exactly, students are saying needs improvement in the management of assessment expectations, marking, standards and feedback for each field of education.

The spread of high to low BA to NI ratios is most dramatic in the subject area where, for example, an odds ratio of 3.1:1 of a BA comment for support: social affinity is ranked 17<sup>th</sup> whilst a very similar ratio at the course level (3.0:1) achieves a ranking of 5<sup>th</sup> on quality.

## Discussion

### *Interpretation of the results*

The comparison of the results across the three levels of survey shows that of eight *CEQuery* subdomains attracting most student comments, and thus suggesting highly important areas of their university experience, seven show patchy results in terms of quality (i.e. that odds of a BA comment is roughly 1:1).

Why do very important *CEQuery* subdomains demonstrate patchy results in terms of quality? One possible interpretation of this outcome is that in very important ‘high-hit’ areas, such as staff quality and accessibility or course methods and flexibility, the student experience is shaped by a broader variety of factors compared to the areas like assessment and outcomes. For example, a detailed analysis of comments in the staff subdomains in this and earlier studies in other universities indicated that: a) staff can make either a strong positive or a negative impression on students; and b) students in the same courses often praise one staff member highly while expressing significant concerns about another.

The patchy results in terms of quality for equally important student support areas – like infrastructure and learning resources – can be, at least in part, explained by the multi-campus nature of some universities. This pattern of results may suggest that the availability and quality of facilities, resources and support services can vary across campuses – especially in institutions which have a relatively even spread of students across more than two campuses. These institutions have to replicate the quality of experience with the same per student resource as a university with most of its students on one major campus.

In summary, the analysis has identified six areas of student experience that warrant an improvement focus. These include three areas where the ratios of ‘best aspects’ to ‘needs improvement’ comments are below 0.7 for each of the three surveys:

- Assessment (standards, marking, expectations management and feedback);
- Student administration; and
- Course structure.

Further, of the eight ‘high hit’ *CEQuery* subdomains three with the BA/NI ratios lower than 0.7 for at least one of the survey instruments are highlighted in Table 3 as also being ‘hot spots’ for improvement.

**Table 3: 'High-hit' *CEQuery* Subdomains with Low BA/NI Ratios**

<i>CEQuery</i> subdomains	Total experience	Course level	Subject level
	BA/NI	BA/NI	BA/NI
Course Design: Flexibility	0.7	1.9	3.4
Course Design: Methods of L & T	0.9	1.1	6.6
Staff: Accessibility & Respons.	1.3	1.6	6.1
Staff: Quality & Attitude	0.5	1.5	10.9
Staff: Teaching Skills	2.2	0.7	4.7
Support: Infrastructure	0.7	0.5	0.6
Support: Learning Resources	0.8	0.6	1.1
Support: Library*	2.4	0.7	0.8

These areas are:

- Staff: quality and attitude (at the overall university level);
- Student support: infrastructure (at the course and subject level); and
- Student support: learning resources (at the course level).

### ***Implications***

Two important messages from this analysis are that: a) *CEQuery* can be a valuable complement to the other tracking and improvement systems already being used in universities; and b) it is the total experience of the university that shapes students' judgments of importance and quality, not just what happens in the classroom. This, as noted earlier, is seen in the pattern of high importance rankings that emerge in the surveys of this University and others.

There are implications for using the findings to:

- ensure that course and subject design, along with the total university experience focus on what counts for students;
- inform what is tracked in quantitative surveys and to validate quantitative items in such surveys;
- identify key areas for improvement, for example, quality assurance for assessment. The recurring finding across all universities is that assessment quality (standards, expectations management and feedback) continues to require attention. This has implications for the 2008 Higher Education Review and for all Australian universities;
- identify potentially relevant solutions to key improvement priorities. Since *CEQuery* enables the user to look at all of the comments for a particular subdomain insights into what is causing NI comments and solutions embedded in the BA ones can be rapidly accessed for each improvement area.

It is recommended that the BA and NI comments for each course and unit are made available to all staff, especially sessional staff so that they know what students in their specific field of education and university are finding most and least engaging and productive. Our research on learning leaders in higher education (Scott, Coates & Anderson, 2008) indicates that this sort of situated knowledge is of particular benefit to staff as they seek to improve their practice.

At the University which is the subject of this case study the feedback via *CEQuery* in combination with a range of other student feedback surveys have been used to identify key areas for improvement attention, along with potentially relevant solutions and how to engage staff in their implementation. The approach adopted has resulted in an improvement on the CEQ overall satisfaction item of more than 10% in three years and an improvement in retention of just under 4%. Key action areas have included the introduction of online enrolment, an online complaints resolution system, a new assessment policy, the introduction of assessment focused self-teaching guides for each subject, a range of new, targeted transition support and study programs and use of the more interactive version of the institution's online learning system. Access to the University's online library continues to play an important role, along with opportunities for practice-based learning and peer support.

## Conclusion

This paper provides examples of ways in which qualitative data generated by student feedback surveys and analysed by *CEQuery* can be used in Australian higher education as an effective and robust tool to track and improve the student experience, as part of a broader system of student feedback.

Concisely, the systematic analysis of these data helps:

- generate a more focused and evidence-based set of 'good practice' guidelines and areas for quality improvement that warrant follow-up down to the course and unit level;
- identify what factors are most important to track as courses and units are implemented and reviewed;
- ensure that the items in student feedback surveys track what is really important to students;
- assist in making staff orientation, teaching and development programs more relevant by providing a consolidated picture in each college, course and student administration unit of what students repeatedly identify as a best aspect and as being unhelpful;
- identify areas of patchiness that may require follow-up action with a view to ensuring greater consistency of quality in the student experience;
- complement the quantitative data that are typically used to inform decision-making for the area (this can include showing more clearly what students had in mind when they gave ratings to particular areas).

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## Attachment 1

### CEQuery subdomains: Specific definitions

#### ASSESSMENT

##### Relevance

Extent to which assessment tasks are perceived to be real-world, applied, up-to-date, integrated, relevant to current and future professional or disciplinary practice and focused on ‘real world’ problems. Also covers comments where students discuss the extent to which assessment is interesting, challenging, engaging, appropriate and how well it matches what was taught and the stated subject/course objectives.

##### Marking

Consistency and reliability of marking; fair assessment of group work projects and NESB student work. Covers reliability across different assessment methods: short answer; online; practice-based; group-based etc. Also includes extent to which plagiarism and cheating are detected, comments about ‘soft-marking’ and the confusion between norm-referenced and criterion-referenced assessment in determining grades.

##### Expectations

Provision of clear assessment tasks and expectations on how to tackle and present them; clear submission deadlines, guidelines rules and grading criteria. Provision of examples of work, to give an operational picture of different grades and quality of work in each subject.

##### Feedback/return

Promptness with which assignments are returned, use of staged deadlines, quality of the feedback received including the extent to which markers comment on what was done well, explicitly identify key areas for improvement and say how improvements could have been achieved—with specific attention to the grading criteria distributed at the start of the subject.

##### Standards

Assessment which is at a university standard—which requires higher-order thinking more than rote memorisation from text books; is interesting, and negotiated; assessment that is valid (i.e. demonstrably focuses on the key capabilities that graduates will need to succeed in the first years of work in a specific profession or discipline). Includes comments about rote learning, industry recognition, over-assessment, range and appropriateness of assessment methods used, assessment load, plagiarism management, appeals, extensions, alignment between what is taught and tested, prerequisites, norm versus criterion-referenced assessment, submission and security, timing, weighting, and consistency of assessment quality and demands between subjects and courses at the same level.

#### COURSE DESIGN

##### Practical-theory links

The consistency with which a course seeks to link and balance theory with practice, designs in a range of practice-oriented experiences directly connects to related theory. The extent to which it is professionally oriented and applied in its design.

##### Relevance (to work/life/discipline)

How interesting, engaging, current, and relevant course *content* is. Also includes comments about courses being personally relevant to the key interests and meeting students’ other needs.

**Flexibility/responsiveness**

This includes comments on the extent to which the course design provides flexible/responsive learning paths (electives/majors/sub-majors); choice; negotiated learning; flexible attendance patterns; flexible delivery; ease of access to learning and assistance to determine which path is best. This subdomain has links to course design but here the focus is on the extent to which the course is able to respond to the particular backgrounds, abilities, needs and experiences of students as opposed to having a single ‘one size fits all’ model.

**Methods of learning and teaching**

Approximately 60 different learning and teaching methods have been identified including: lectures, group work, seminars, tutorials, specific practical, real-life learning methods (practicum, internships, coop ed., moots, simulations, work placements, field trips, clinical placements, industry and practical legal training, etc); use of prior learning of students; camps; lab-work to learning contracts, site visits, experiments, various forms of IT-enabled learning, simulations, teleconferences, guest speakers, specific peer/team learning methods and case-study analysis. Appropriate use of interactive learning methods is a recurring theme in students’ BA comments.

**Structure and expectations**

Structure: subject balance and distinctiveness from each other, subject quality, overall load and amount of content to be learnt, appropriate sequence of learning, overlap between subjects, prerequisites, admission levels, timetable, overview of field, recognition of prior learning (RPL), the appropriateness of the modes of learning used (pt/ft, mixed mode, multi-site, intensive, work-based, distance, online etc.). Also includes comments about the appropriateness, timing, length and variety of mix of learning methods used, the extent to which the course has depth, a clear direction, is integrated, and has an overall integrity.

Expectations: management and clarity of information provided, course rules, access to staff, resources, university processes. Also includes comments about alignment between course prospectus and delivery and actual availability of advertised electives.

**OUTCOMES****Intellectual**

Development of analytical skills, critical thinking, creativity, problem-solving, diagnostic abilities; ability to “see the key issue” in a welter of information, come to a justified decision in a tricky situation, trace out the consequences of various options for action, understand one’s key assumptions, see “the big picture” and “think on one’s feet”. Intellectual capabilities interact with Personal and Interpersonal ones.

**Work application/career**

Includes gaining promotion, improved employability, improved workplace performance, direct application of what was learnt at work.

**Further learning**

Going on to further and higher study as a result of the course; commitment to life-long learning. In the case of NI comments students may talk more about the blocks they experienced or the reasons why the course didn’t motivate them to go on to further study.

**Personal**

All aspects of *personal* Emotional Intelligence identified in recent studies of successful graduates and other research (see Vescio 2005) e.g. the ability to remain calm when things go wrong, self-confidence, sense of ‘efficacy’, willingness to take negative feedback, ability to tolerate ambiguity,

persevere and maintain self-motivation, independence, self understanding etc). Also includes comments about the personal satisfaction that comes from completing a higher-education program.

### **Interpersonal**

This covers not just written and verbal communication skills but key aspects of *social* Emotional Intelligence identified in the successful graduate studies (e.g. the ability to work with a wide diversity of people, a developed understanding of cultural differences, an ability to work productively as part of a team, development and use of peer/other networks). See Scott & Yates (2002), Vescio (2005) for more detail on these concepts. NI comments tend to talk about the blocks in communication during the course that prevented the development of the desired interpersonal outcomes – staff and students with poor communication skills in English are regularly cited in this context.

### **Knowledge/skills**

Includes both generic skills/knowledge (e.g. the ability to chair a meeting, use computers; self-teaching skills, library search skills, information literacy and skills of observation) and profession/discipline-specific skills/knowledge (e.g. knowledge of a particular statute in Law, or specific skills for use in a laboratory, etc). Also includes research skills.

## **STAFF**

### **Accessibility and responsiveness**

Ability to contact staff (face-to-face, online, by telephone etc), staff availability, how and when they respond, their willingness to support students, as well as comments about the interface between staff : student ratios and staff accessibility and responsiveness.

### **Teaching skills**

Staff ability to teach and convey knowledge; their effectiveness, creativity, organisation and enthusiasm as lecturers as distinct from comments on how knowledgeable they are, or how they behave outside the classroom.

### **Practical experience (current)**

How up-to-date, ‘in touch’ and linked staff are with current professional or disciplinary practice through, for example, being a current practitioner. Extent to which there is use of guest lecturers; staff ability to use ‘real world’ anecdotes to make their teaching more relevant.

### **Quality and attitude**

Staff members’ ability to inspire; their enthusiasm, promptness in coming to class, reliability, levels of organisation, engagement; their professionalism, organisation, commitment to the area taught, interpersonal skills and clarity of communication including English language skills.

## **SUPPORT**

### **Library**

Library collections, services, ease of access, facilities, equipment, efficiency, online services as well as face-to-face services, borrowing services and rules, fines.

### **Learning resources**

Quality and availability of textbooks, print & digital support materials, course outlines, study guides, lecture notes, course readings, online learning resources, self-teaching materials, CD-Roms, video, TV, photographic and sound resources.

**Infrastructure/environment**

Classroom and lab quality, class sizes and levels of crowding, quality of computers and technical infrastructure, equipment levels and quality, ease of access to physical facilities and their quality, campus environment, equipment levels, social spaces. Also comments about funding levels for facilities and financial support at universities.

**Student administration**

Enrolment systems (online and offline), exam scheduling, fees processes, administrative advice, exemptions, graduation processes, delivery of transcripts, accuracy of fees' invoices, grievance processes, results, scholarships, admission, admin staff responsiveness, timetabling. Includes ease of access to student administration services and the extent to which queries and problems are followed up promptly and resolved. Also includes comments about efficiency, levels of bureaucracy.

**Student services**

Learning support services (English for academic purposes, study assistance, information literacy, transition to university programs, orientation etc), careers. Services to DEST-defined equity groups including ATSI and NESB students, along with counselling services. Comments about the helpfulness of support service staff including IT-enabled learning support. Both IT-enabled and face-to-face.

**Social affinity/support**

Comments that relate to the sense of 'belonging' that comes from a welcoming, friendly, approachable environment and culture and set of relationships among both staff and students. Comments which indicate that the student feels s/he is seen not as a number but an individual. Comments about levels of engagement or isolation felt by students. Also covers comments on the wide range of formal and informal types of social support, in particular peer support but also a general culture of support and service, ability to network, interaction with others, the development and use of reciprocal relationships. For interactions with staff it includes the presence of a 'service-oriented' culture.