

# Assessment in Australian universities: what they say they do to engage students

**Stephen C. Russell**

Defence and Systems Institute, University of South Australia, Stephen.russell@unisa.edu.au

*There are as many guidelines for good assessment practice as there are educational institutions to write them. Many Australian universities make publically available statements as to their view of good assessment practice. There are clear consistencies between these guidelines and current thinking world-wide. However there are also outliers – attributes ‘voted for’ by only a few universities. Both mainstream principles and the outliers hold some interest. The purpose of this research is to collate the publically available assessment guidelines from the majority of universities in Australia to determine a consensus view of the most important assessment principles, particularly with respect to engaging students, and the degree of support given to each principle by the universities. These data raise many questions that need to be examined in future studies.*

**Keywords:** *assessment guidelines, university assessment, assessment principles*

## Introduction

The practices of teaching, learning and the associated assessment of learning have undergone great changes since the nineteen seventies and eighties, when people like Marton & Säljö (1976), John Biggs (1979), and Entwistle & Ramsden (1983) started questioning the pedagogy of learning. Much has been written since that time on good learning and assessment practice, and studies have been carried out to test or verify different contentions in practice. Many of the principles of good assessment practice discussed in the literature are summarised in the work by Suskie (2006).

Simply knowing about good assessment practice is, however, a different thing from practising good assessment practice. Race (2003), for instance, asserts that assessment practice in the UK is ‘broken’, and that there is a large amount of evidence to support this view. Similarly, Angelo (1996) points to serious deficiencies in US assessment practice. In light of the global context, therefore, it is likely that assessment in Australian universities is still evolving towards better practices. This evolution in assessment practice, therefore, is likely to be expressed in the universities’ expressions of their own assessment principles.

Authors such as Eder (2000) maintain that all universities should clearly state the principles of good assessment that they abide by. In the current context these principles should be publically available on the university websites. Equally, the sites should be easily searchable using commonly available search engines. In effect, each university should have a statement of the principles of good assessment practice that is easy to locate on their website.

Most universities in Australia do provide assessment guidelines, whether as independent documents, or as part of university policy documents. This research investigates what each Australian university recommends as the principles of good assessment design and practice. The objective is to determine what consensus there is in Australian universities as to the fundamental principles of best practice in assessment and how to use assessment to engage

students. This provides a basis for determining where Australian universities are in the evolution of assessment practice.

## Methodology

An initial set of good assessment practice requirements was distilled from assessment guidelines listed by Brown, Race & Smith (1996); *Core principles of effective assessment*; James, McInnis & Devlin (2002); and Astin et al. (1996). The guideline statements from each source were listed, correlated, and categorised into simple statements that expressed principles that demonstrated some consensus between sources.

The initial framework of good assessment principles is as follows:

- Assessment should measure the learning outcomes articulated by the objectives of the course and the educational values of the institution
- The criteria for assessment should be clear, explicit, consistent, justifiable, and open to continuous evaluation and revision
- Assessment should help students to learn with due care as to how different students learn
- Assessment should be an integral part of the teaching and learning process
- Students should receive explicit, objective, and timely feedback
- Student and staff workloads should be appropriate
- Assessment should be based on a wide variety of assessment tools and processes
- The purposes of assessment should be clearly explained

The websites of all Australian universities (as listed by the Australian Education Network, 2008) were examined to find the clearest documents available that described the university view of good assessment practice. For inclusion in the survey a university needed to publicise a document listing at least five principles of good assessment practice.

University policies on matters such as the right of students to appeal their assessments, the review process for assessments, responsibilities, re-assessment, rights, grade details access to supplementary assessments, or actions in case of dishonesty or plagiarism were considered to be outside of this study.

Out of thirty-nine universities listed, twenty-eight satisfied the criteria for inclusion in this survey (Appendix A). For some, no appropriate documents were found – which may have been more a reflection on the utility of their public Internet site rather than an indication that the university in question had no opinion on the subject. Some universities had both an assessment policy document, and a set of guidelines for good assessment, or even several such documents. In such cases the guideline documents were studied for inputs into the university approach to good assessment, in preference to the policy documents.

Each document selected for study was examined to identify statements that expressed concise and specific requirements for good assessment. These statements were matched against the initial list where possible, or were used to rephrase the existing statements when new key words were used for the same concept, or were used to define statements expressing new

concepts. As the survey progressed the list of statements lengthened, and previously studied documents were re-examined to see if they addressed any newly defined concepts. This iterative process was facilitated by defining keywords representing each concept, and electronically searching for these words in each of the documents. Any requirements that lacked the support of three or more universities were discarded.

Each principle was then classified under a category that expressed a general relationship between the members selected for that category. These selections were somewhat arbitrary since different documents chose their own categories, and treated a particular criterion as a member of different categories (to each other) or included them in multiple categories with slightly different wording. In the interests of simplicity, assessment principles were placed in just one category whenever possible. This generated the *derived baseline* of publically explicit requirements for good assessment practice promulgated by Australian universities (Table 1).

**Table 1: The derived baseline of principles for good assessment**

No.	Principle
<b>1. Objectives</b>	
Rqt.1.1	Assessment should help (motivate) students to <b>learn</b> (i.e. educative purpose)
Rqt.1.2	Assessment should be <b>criterion-referenced</b> whenever possible (rather than norm-referenced)
Rqt.1.3	Assessment should assist students to achieve <b>professional standards</b> of work in the relevant field
Rqt.1.4	Assessment should <b>judge</b> how well students have achieved stated <b>learning outcomes</b> (assessment tasks and criteria align with learning outcomes)
Rqt.1.5	Assessment should help students to improve <b>generic</b> (vocational skills, graduate qualities) capabilities, such as: become effective problem solvers; prepared for life-long learning; interdisciplinary view.
<b>2. How students learn</b>	
Rqt.2.1	Assessment should be <b>progressive</b> over time to reveal the changes that take place as a student learns
Rqt.2.2	A <b>diverse</b> range of assessment instruments and processes should be employed
Rqt.2.3	Assessment tasks should be appropriate to all students without favour or disadvantage to any (i.e. <b>fair and equitable</b> )
Rqt.2.4	Students should be involved in their <b>own assessment</b> wherever possible (designing assessment, assessing own work)
<b>3. Assessment as part of learning</b>	
Rqt.3.1	Assessment should be an <b>integral</b> component of course design
Rqt.3.2	Assessment tasks should allow students to demonstrate <b>deep</b> understanding of the key concepts (e.g. through analysis, synthesis, evaluation, and critical reflection)
<b>4. Assessment Tasks</b>	
Rqt.4.1	Assessments tasks should be <b>clear</b>
Rqt.4.2	Assessments tasks should be <b>specific</b>
Rqt.4.3	Assessment tasks should be <b>meaningful</b> (authentic, real life)
Rqt.4.4	Assessment tasks should address a <b>variety</b> of learning outcomes (rather than repeatedly test one outcome)
Rqt.4.5	Assessment tasks should be designed to <b>minimise</b> the chances of plagiarism
<b>5. Assessment Criteria</b>	
Rqt.5.1	Assessment criteria should be <b>clear</b>
Rqt.5.2	Assessment criteria should be <b>specific</b> (i.e. should describe the required standards of knowledge, skills, competencies and capabilities)

No.	Principle
Rqt.5.3	Assessment criteria should be <b>valid</b> (measure what is intended - i.e. attributes, skills, concepts, thinking processes - all at the right level)
Rqt.5.4	Assessment criteria should be <b>justifiable</b> (explain rationale)
<b>6. Assessment Outcomes</b>	
Rqt.6.1	Assessment outcomes should align with educational <b>values</b> (of the university)
Rqt.6.2	Assessment outcomes should align with the <b>students' goals</b>
Rqt.6.3	Assessment outcomes should align with <b>community goals</b>
Rqt.6.4	Assessment outcomes should be justifiable (i.e. valid, consistent and <b>reliable</b> )
Rqt.6.5	Assessment outcomes should align with <b>government</b> goals
<b>7. Feedback</b>	
Rqt.7.1	Students should receive <b>specific</b> , constructive and developmental feedback on their learning and performance
Rqt.7.2	Feedback should be <b>timely</b> (i.e. in time to inform the next task, or other deadline)
Rqt.7.3	Feedback should be <b>supportive</b> of the student (i.e. should not demoralise or humiliate students)
Rqt.7.4	Assessment instruments and processes should be the subject of continuous <b>evaluation and adjustment</b> .
<b>8. Workloads</b>	
Rqt.8.1	The amount of assessment should provide enough evidence to judge a <b>student's learning</b> , but avoid excessive assessment (including coordinated timing in a program)
Rqt.8.2	The amount of assessment should not incur an excessive workload on the <b>lecturer</b>
Rqt.8.3	The <b>effort</b> involved in an assessment task should be commensurate with the value awarded to the task
<b>9. Standards</b>	
Rqt.9.1	Assessment should uphold the highest academic standards (typically certified or <b>accredited</b> )
Rqt.9.2	Assessment should uphold the highest <b>ethical</b> and moral standards
Rqt.9.3	Assessment outcomes should be <b>confidential</b>

While it was intended that each principle be discrete and non-overlapping with other requirements, the language used in the publicised guidelines often made the specific intentions unclear. A statement saying ‘assessment should be justifiable’ for instance, does not specify whether it refers to assessment tasks or assessment outcomes. In these cases the guidelines were deemed to support both principles.

The derived principles for good assessment, in Table 1, include nine categories, and thirty-five requirements. Each requirement is systematically expressed in terms of the ‘should’ imperative, as these are guidelines and not mandatory. Additional key words for concepts are included in brackets (to aid in recognising different expressions for the same concept). Each requirement is given a unique identifying number, which is used for reference throughout the document (e.g. Rqt.1.1, Rqt.5.2).

The selected publically available documents on Australian university assessment guidelines were then examined to determine their support for each of the derived requirements.

## Results

The complete set of results were recorded in a matrix (Appendix B) showing the *derived baseline*, and whether or not each university publically and explicitly supported each requirement. If a university expressed a concept that corresponded to a listed requirement, then a tick was placed in the relevant box.

The key word in each attribute is emboldened to assist in quickly understanding the intention. The universities used in the study are listed across the top, and the meanings of the acronyms and the web address of the relevant documents are presented in Appendix A. The universities are grouped in the five different categories defined on the Australian Education Network (2008) website.

Requirements that are not ticked imply either that they were not mentioned in the documents or that they were discussed but not supported. For instance, criterion-referencing (Rqt.1.2) was sometimes mentioned as just one method of assessment, and that normative-referencing was equally valid. Only when a preference was expressed for criterion-referencing was it awarded a tick.

The results were summarised in the form of bar-graphs in Appendix C, Figures 1 and 2, where each assessment principle was scored against the number of 'votes' it received from the university documents (only one vote allowed per university). Each principle was shortened for readability compared with the original in Appendix A, but retains the core elements. It is assumed that each statement in Appendix A is prefaced by: 'Assessment should...'

Figure 1 shows the list of requirements in sequential order, which has the advantage that the categories are maintained. Figure 2 lists the requirements in priority order, which allows easy assessment of those principles considered to be the most important by Australian universities.

## Discussion

There are two outcomes of this study:

1. The standard set of assessment principles recommended by Australian universities
2. The degree of support by the universities for each derived requirement

### The standard set of assessment principles

The standard set of assessment principles listed in Table 1 has been derived directly from the university sources, as described in the *Methodology*. In other words, they were not derived directly from the literature and shoe-horned into requirements professed by various authors. Rather, the principles were derived from the concepts and wordings that were expressed by the universities themselves.

Even so, it is clear that the principles were derived from the academic literature on good assessment practice. However, the list of principles is a microcosm of that literature embedded in an historical context and the evolution of beliefs on the issues. Universities have traditions of how they act; they are typically cautious conservative institutions and they take time to change. This is only sensible, as confusion and dislocation can ensue if radical changes are made to long established practices – as happened, for instance, at the conclusion of the apartheid era in the Republic of South Africa (Wilmot, 2005).

The question is whether the microcosm of good assessment practice derived here is a useful basis for informing universities of their pathway towards good assessment? Or does it highlight some deficiencies in assessment practice that are discussed in the literature, and are notable here by their absence?

Rowntree (1987) provides a framework for discussing assessment practice. The questions underlying this framework were: why assess?; what to assess?; how to assess?; how to interpret?; and how to respond? Rowntree also suggested that the most important reasons for

formal assessment are expressed in a selection of a more comprehensive list from Klug (1974) as being selecting, maintaining standards, motivating students, providing feedback to students and teachers and preparing students for life.

Biggs (1999) maintains that it is essential for the assessment process to be ‘constructively aligned’ with the course learning outcomes and learning and teaching methods. It follows, therefore, that assessment needs to be aligned with explicit learning outcomes, and that the assessment criteria are clearly defined and explicit.

While the literature maintains that feedback is potentially the most important element of assessment (Gibbs & Simpson, 2002), some studies have shown that feedback is often unhelpful (MacLellan, 2001). This may be due to the poor quality of feedback or to the delay in the student receiving feedback, and having moved on.

McKellar (2002) recommends making ‘previously implicit standards for assessment explicit.’ This includes provision of:

- assessment criteria for each assessment task
- discussion of assessment criteria with students
- formative assessment
- student self- and peer-assessment

While it is clear that the framework and beliefs of Rowntree (1987) and Biggs (1999) and others are addressed, or potentially addressed in the principles listed in Table 1, some of the latest recommendations, such as ‘student self- and peer-assessment’ are largely missing (though this is covered in part by Rqt.2.5 – students should be involved in their own assessment wherever possible). It is also clear, that fundamental issues remain, such as the utility of student feedback.

It is not the intention to investigate here what should or should not be in the list based on a thorough analysis of the literature. Suffice to say that the list is useful in the way it is presented here in that it states each concept in simple, clear, specific and testable terms. While more refinement is possible, including rearrangement of requirements and categories, and removal of potential areas of overlap or confusion, it remains a firm basis for further discussion. Each university can quickly go through the list to determine which principles they choose to support, and issues or new findings discussed in the literature can be added or subtracted in the future as appropriate.

### **University support for assessment principles**

It is tempting to postulate that some newer universities with less well established practices and routines, may follow newer ideas on the principles of good assessment. For this reason, the universities in Appendix B are grouped according to their various categories. The question is: do these university categories reflect real differences in attitudes to assessment? It seems, however, that there is little evidence for correlation with university category, so the issue is left for future consideration.

The top ten requirements presented in Figure 2 are specifically and directly focussed on enhancing student engagement. This argues for a strong commitment by Australian universities to address student learning through good assessment practices. For instance, the top requirement, Rqt.7.1, says that students should receive specific and constructive feedback. This indicates a general acknowledgement that it is no longer sufficient for lecturers and tutors to simply mark exam questions and award grades for learning to take place. This

represents a major shift in teaching practice over the past three decades (see for example Brown & Knight, 1994; Black & Wiliam, 1998).

The other requirements in the top ten are incontestably valuable statements of good assessment practice, and should appear in policy statements of all Australian universities. The next two requirements in priority order – Rqt.7.5 assessments should be continuously evaluated and adjusted, and Rqt.9.1 assessments should uphold academic standards – address the two most important constraints in assessment practice. Rqt.7.5 requires lecturers to continuously evaluate and revise their assessment practice. Though standard evaluation procedures provide some basic feedback for each course and for each lecturer, perhaps it doesn't go far enough. Some universities, by stating this principle as a requirement for good assessment practice, alert the reader to the need for additional action. Either the standard feedback tools should be integrated into a process for updating future assessment, or they believe that more proactive efforts are required to determine specific targeted feedback from students to assist in decision making for improving subsequent courses. This may, for instance, involve surveys amongst previous students to determine which of several assignment tasks are best suited to assessing the learning outcomes.

Rqt.9.1 represents the oldest objective of assessment practice, not just to judge learning performance, but to judge learning performance against a defined set of academic standards. In a context of changing teaching practices, this remains a central issue for discussion and consideration.

The next two requirements – Rqt.2.2 assessments should be progressive and Rqt.4.1 assessment tasks should be clear – again address student engagement, though it may be argued by some that they are implicit, which may account for their slightly lower support overall.

Rqt.1.5 requires that assessment should address the particular graduate qualities pronounced by the universities. This is interesting, since all universities have a list of graduate qualities, but not all universities recommend the assessment of these qualities. On the other hand, one university requires assessment of graduate qualities, but makes no mention of assessing the learning outcomes (Rqt.1.4).

Rqt.3.2 – assessment should allow students to demonstrate deep learning – is only supported by twelve universities, less than half of the total. It is unlikely that this requirement is considered to be implicit, so it is a little worrying that there is not greater support. However, taken together with the requirement Rqt.3.1 – assessment should be an integral component of course design – the outcome is better, with eighteen universities supporting one or other, or both.

Rqt.8.3 – a requirement to align student effort with the value awarded seems at first to be entirely justifiable. However, it may directly conflict with some views of assessment philosophy where low marks and a large amount of formative assessment is provided at the beginning of a course, when students are getting used to the concepts and skills, and the major portion of marks is awarded at the very end of the course when the students are able to demonstrate their highest levels of learned skills and understanding (AUTC, 2002).

Rqt.5.3 – use valid criteria – received moderate support, but was not overwhelming. This may have been taken as implicit by some universities, while others are aware that this is an issue.

The implied trade-off might be between what is easy to assess, and what is valid assessment (Elton, 1982). With pressure on both teachers and learners to do more in a given time, there may be a temptation to choose assessment methods that avoid some of the key desired learning outcomes, skills or demonstration of valued qualities.

Rqt.2.5 – students should be involved in their own assessment wherever possible – received considerable support with nine votes. This is perhaps the most deeply innovative and direct principle for engaging students in assessment. The level of support may be an indication that this type of assessment is becoming more accepted in mainstream teaching and learning. Partly this might reflect better learning outcomes when students are involved (Gibbs, 1999), but it may also reflect the greater efficiency in assessment of large classes that occurs when students take part in the assessment process (Sluijsmans, 2002).

Rqt.4.4 – assessment tasks should support a variety of learning outcomes – is different but related to Rqt.2.2 – a diverse range of assessment practices should be used. Taken together the support is only changed by two votes from Rqt.2.2, so it is unlikely that any overlap affects the results.

The requirements which received between three and eight votes might be indicators as to where teaching, learning and assessment are heading in the future, may indicate where they have been in the past, or they may indicate some degree of branding peculiar to individual universities.

Most of the requirements with this lower degree of support are more technical, than involved in engaging students per se. There are, for instance, explicit statements that due consideration be given to educational values, professional standards and the needs of the workplace, the students' goals and emotional welfare, community and government goals, and ethical and moral standards. These are all essential elements of a growing maturity in teaching and learning practices in Australian universities (see the discussion by Vey, 2005).

Other guidelines address the limits to the endurance of lecturers in developing and assessing learning outcomes and assessment tasks. While work load is important for all aspects of changing assessment practice (Wilmot, 2005), it is particularly important in the context of flexible learning environments where more and more teaching, learning and assessment tools are becoming available to lecturers, but the available effort remains constant (Bartlett & Ghoshal, 2002).

There is a recognised need to ensure clarity of assessment tasks and to align assessment with meaningful activities that students will encounter in the real world. These requirements directly address student engagement and are of growing importance as universities realise that they are competing on a global stage to provide relevant education and training (Driscoll & Codero, 2006). There is also some acknowledgement of the need to explain to students how the assessment criteria relate to the learning outcomes of the course (Rqt.5.4) and to return feedback that is supportive, rather than negative (Rqt.7.4). Again, this may reflect the dawning realisation that an understanding of how students learn is important in university teaching (Nicol, 2007).

Finally, there is a recognition that plagiarism is not just a phenomenon that bad students do. There are ways to minimise plagiarism through teaching students the difference between



plagiarism and proper referencing, telling them what is and isn't acceptable, and designing assessment tasks that minimise the opportunity or temptation to plagiarise (AUTC, 2002).

### **Conclusions and open questions**

This research has discussed and analysed the publically available assessment guidelines for all but a few Australian universities. The guidelines have been encoded into nine categories, and thirty-five requirements. Each requirement has been assessed against the numbers of votes it received through explicit mention in university guidelines or policy documents.

The outcomes of the research are a list of the principles of good assessment practice derived directly from the documents studied, and a measure of how well each principle is supported by the universities.

The list of principles is written in a simple direct style based on standard methodology for developing requirements in systems engineering, but framed as guidelines rather than as mandatory requirements. This has resulted in a list of statements that express just one concept which is easily understood and testable. In effect this allows a comparison to be made between the principles supported by different universities, but also supplies a resource for those universities to question their own principles. Each issue can be reviewed in depth by consulting the literature, especially through the excellent compilation by Suskie (2006). Moreover, the list itself can be easily updated through regular comparisons with the literature.

The graded list of requirements shows high support for many of the assessment practices recommended in the literature. However, support for basic assessment principles is never unanimous across all universities. What accounts for the differences in viewpoints on good assessment practice?

Certainly differences are to be expected due to the fact that universities choose to express their assessment philosophies in many different ways – through independent development, or through differing perceptions of implicit and explicit principles. Perhaps some of the differences are due to deliberate 'branding' by the universities. It might be expected that 'branding' would show up in correlations in the support observed for particular principles between the major university groupings. However, this is not obvious from the data, so more investigations may be called for.

Some universities fail to publicise guidelines of any kind, and again one is tempted to ask whether this is just an artefact of the investigation, and the guidelines do exist but were not discovered. If they don't exist, the question remains as to why?

Finally, and perhaps most importantly, it is necessary to understand how the principles of good assessment espoused by Australian universities compare with the published literature on the subject, how they compare with the views of other universities across the world, and how well they engage students in assessment to achieve better learning outcomes. Are Australian university assessment practices 'broken' as has been claimed for UK universities, and intimated for US universities, or are there indications that they are doing well, or at least moving in the right direction? This research hints that Australian universities are moving in the right direction, but only future research can tell for sure.

## References

- Astin, A., Banta, T., Cross, P., El-Khawas, E., Ewell, P., Hutchings, P., Marchese, T., McClenney, K., Mentkowski, M., Miller, M., Moran, E. & Wright, B. (1996). 9 Principles of Good Practice for Assessing Student Learning, *American Association for Higher Education Assessment forum*. (Retrieved 16/05/2008) <http://ultibase.rmit.edu.au/Articles/june97/ameri1.htm>.
- Australian Education Network (2008). (Retrieved, 26/08/2008) <http://www.australian-universities.com/list/>
- Australian Universities Teaching Committee (2002). *Core principles of effective assessment*, Melbourne, Australia. (Retrieved 28/10/2008) <http://www.cshe.unimelb.edu.au/assessinglearning/05/index.html>.
- Bartlett, C. & Ghoshal, S. (2002). Building competitive advantage through people. *Sloan Management Review*, 43(2), 34-41.
- Biggs, J. (1979). Individual differences in study processes and the quality of learning outcomes, *Higher Education*, 8, 381-394.
- Black, P., & Wiliam, D. (1998), Assessment and Classroom Learning, *Assessment in Education*, 5.
- Brown, S., & Knight, P. (1994), *Assessing Learners in Higher Education*, London: Kogan Page.
- Brown, S., Race, P. & Smith, B. (1996) *500 Tips on Assessment*, London: Kogan Page.
- Core principles of effective assessment* (no date), Centre for the Study of Higher Education, The University of Melbourne, Australia. (Retrieved 16/05/2008) <http://www.cshe.unimelb.edu.au/assessinglearning/docs/CorePrinciples.pdf>.
- Driscoll, A., & Cordero de Noriega, D. (2006). *Taking ownership of accreditation: Assessment processes that promote institutional improvement and faculty engagement*, Sterling, VA: Stylus.
- Eder, D. (2000). *Putting assessment in its place: How to install authentic assessment for internal and external audiences*, presented at Assessment Seminar/Workshop, AAHE National Assessment Conference, Charlotte, NC.
- Elton, L. (1982). Assessment for Learning. In, D. Bligh (ed), *Professionalism and Flexibility in Learning, Programme of Study into the Future of Higher Education*, Society for Research into Higher Education, Vol 6, pp. 106 – 135.
- Entwistle, N. & Ramsden, P. (1983). *Understanding Student Learning*. London: Croom Helm.
- Gibbs, G. (1999). Using assessment strategically to change the way students learn. In 5 Brown & A Glasner (Eds.). *Assessment matters in Higher Education: choosing and using diverse approaches*. Buckingham: SRHE and Open University Press.
- James, R., McInnis, C. & Devlin, M. (2002). Tips for new staff, in *Assessing Learning in Australian Universities*, Centre for the Study of Higher Education, The University of Melbourne, Australia. (Retrieved 16/05/2008) <http://www.cshe.unimelb.edu.au/assessinglearning/docs/GettingStarted.pdf>.
- Marton, F. & Säljö, R. (1976). On qualitative differences in learning I: Outcome and process”, *British Journal of Educational Psychology*”, 46, 115-127.
- Nicol, D. (2007). Principles of good assessment and feedback: Theory and practice, from the *REAP International Online Conference on Assessment Design for Learner Responsibility*, 29th-31st May, 2007. (Retrieved 5/10/2008) <http://ewds.strath.ac.uk/REAP07>.
- Sluijsmans, D. (2002). *Student involvement in assessment: The training of peer assessment skills*, PhD thesis, Open University, Netherlands.
- Suskie, L. (2006). *Five dimensions of good assessment*, Middle States Commission on Higher Education, US, (Retrieved 28/10/2008) <http://planning.iupui.edu/page/download/?key=129728430&path=/consult/conferences/national/06/handouts/monday/suskie.pdf>.
- Vey, L. (2005). *Enhancing the relationship between learning and assessment*, PhD thesis, University of Canberra, Australia.
- Wilmot, P. (2005). *Teachers as recontextualisers: A case study analysis of outcomes-based assessment policy implementation in two South African schools*, PhD thesis, Rhodes University, South Africa.

## Appendix A – University acronyms

Acronym	University	Reference
ACU	Australian Catholic University	<a href="http://my.acu.edu.au/53872">http://my.acu.edu.au/53872</a>
ANU	Australian National University	<a href="http://info.anu.edu.au/Policies/_DVC/Policies/Code_of_Practice_for_Teaching_and_Learning.asp?tab=1">http://info.anu.edu.au/Policies/_DVC/Policies/Code_of_Practice_for_Teaching_and_Learning.asp?tab=1</a>
CDU	Charles Darwin University	<a href="http://learnline.cdu.edu.au/t4l/teachinglearning/assessmentvet.html">http://learnline.cdu.edu.au/t4l/teachinglearning/assessmentvet.html</a>
CQU	Central Queensland University	<a href="http://policy.cqu.edu.au/Policy/policy_file.do?policyid=701">http://policy.cqu.edu.au/Policy/policy_file.do?policyid=701</a> and <a href="http://www.learning.cqu.edu.au/lt_resources/Assessment_Guide_staff2007.pdf">http://www.learning.cqu.edu.au/lt_resources/Assessment_Guide_staff2007.pdf</a>
Curtin	Curtin University of Technology	<a href="http://www.policies.curtin.edu.au/local/includes/getdoc.cfm?url=https://ecm.curtin.edu.au:443/alfresco/gd/d/workspace/SpacesStore/e2bb35f0-fca7-11dc-8e88-253dc30d60f2/Assessment_Policy_and_Procedure_Manual.pdf?guest=true&amp;policyId=9e79063d-efdb-11dc-9b33-6993b375b17c">http://www.policies.curtin.edu.au/local/includes/getdoc.cfm?url=https://ecm.curtin.edu.au:443/alfresco/gd/d/workspace/SpacesStore/e2bb35f0-fca7-11dc-8e88-253dc30d60f2/Assessment_Policy_and_Procedure_Manual.pdf?guest=true&amp;policyId=9e79063d-efdb-11dc-9b33-6993b375b17c</a>
Deakin	Deakin University	<a href="http://theguide.deakin.edu.au/TheDeakinGuide.nsf/Web+Visitors?OpenFrameSet&amp;Frame=WebContent&amp;Src=W12.1?OpenPage&amp;Choice=0&amp;Access=Visitor">http://theguide.deakin.edu.au/TheDeakinGuide.nsf/Web+Visitors?OpenFrameSet&amp;Frame=WebContent&amp;Src=W12.1?OpenPage&amp;Choice=0&amp;Access=Visitor</a>
ECU	Edith Cowan University	<a href="http://www.ecu.edu.au/CLT/directorate/about/assessment_ECU.pdf">http://www.ecu.edu.au/CLT/directorate/about/assessment_ECU.pdf</a>
Flinders	Flinders University	<a href="http://www.flinders.edu.au/ppmanual/education/edu.assess.htm">http://www.flinders.edu.au/ppmanual/education/edu.assess.htm</a>
Griffith	Griffith University	<a href="http://www62.gu.edu.au/policylibrary.nsf/alldocs/c65e95921348eb64c4a256bdd0062f3b0?open&amp;document">http://www62.gu.edu.au/policylibrary.nsf/alldocs/c65e95921348eb64c4a256bdd0062f3b0?open&amp;document</a>
JCU	James Cook University	<a href="http://www.jcu.edu.au/policy/teaching/teaching/JCUDEV_016746.html">http://www.jcu.edu.au/policy/teaching/teaching/JCUDEV_016746.html</a>
Latrobe	La Trobe University	<a href="http://www.latrobe.edu.au/teaching/teaching-resources/assessment.html">http://www.latrobe.edu.au/teaching/teaching-resources/assessment.html</a>
Murdoch	Murdoch University	<a href="http://www.murdoch.edu.au/admin/policies/assessment.html#7">http://www.murdoch.edu.au/admin/policies/assessment.html#7</a>
Newcastle	University of Newcastle	<a href="http://www.newcastle.edu.au/policylibrary/000779.html">http://www.newcastle.edu.au/policylibrary/000779.html</a>
RMIT	Royal Melbourne Institute of Technology	<a href="http://www.rmit.edu.au/browse;ID=det2rlnje0ay">http://www.rmit.edu.au/browse;ID=det2rlnje0ay</a>
UNE	University of New England	<a href="http://www.une.edu.au/policies/pdf/assessment.pdf">http://www.une.edu.au/policies/pdf/assessment.pdf</a>
UniMlb	University of Melbourne	<a href="http://www.cshe.unimelb.edu.au/assessinglearning/">http://www.cshe.unimelb.edu.au/assessinglearning/</a>
UniSA	University of South Australia	<a href="http://www.unisa.edu.au/policies/manual/2008/2008_APPM.pdf">http://www.unisa.edu.au/policies/manual/2008/2008_APPM.pdf</a>
UNSW	University of New South Wales	<a href="http://www.secretariat.unsw.edu.au/acboard/approved_policy/assessment_policy.pdf">http://www.secretariat.unsw.edu.au/acboard/approved_policy/assessment_policy.pdf</a>
UOW	University of Wollongong	<a href="http://www.uow.edu.au/about/policy/Best%20Practice%20Assessment.pdf">http://www.uow.edu.au/about/policy/Best%20Practice%20Assessment.pdf</a>
UQ	University of Queensland	<a href="http://www.uq.edu.au/hupp/index.html?page=25109&amp;pid=25109&amp;ntemplate=674">http://www.uq.edu.au/hupp/index.html?page=25109&amp;pid=25109&amp;ntemplate=674</a> and

Acronym	University	Reference
		<a href="http://www.tedi.uq.edu.au/teaching/assessment/designing.html">http://www.tedi.uq.edu.au/teaching/assessment/designing.html</a> and <a href="http://www.tedi.uq.edu.au/downloads/Assessment_for_Learning.pdf">http://www.tedi.uq.edu.au/downloads/Assessment_for_Learning.pdf</a>
USC	University of the Sunshine Coast	<a href="http://www.usc.edu.au/University/AbouttheUniversity/Governance/Policies/Academic/Assessment.htm">http://www.usc.edu.au/University/AbouttheUniversity/Governance/Policies/Academic/Assessment.htm</a>
USQ	University of Southern Queensland	<a href="http://www.usq.edu.au/resources/basicprincipalsforimprovingassessment.pdf">http://www.usq.edu.au/resources/basicprincipalsforimprovingassessment.pdf</a>
USYD	University of Sydney	<a href="http://www.usyd.edu.au/ab/policies/Assess_Exam_Coursework.pdf">http://www.usyd.edu.au/ab/policies/Assess_Exam_Coursework.pdf</a>
UTAS	University of Tasmania	<a href="http://www.assessment.utas.edu.au/docs/guide-for-good-assessment.pdf">http://www.assessment.utas.edu.au/docs/guide-for-good-assessment.pdf</a> and <a href="http://www.utas.edu.au/tl/supporting/assessment/Assessment%20Checklist.doc">www.utas.edu.au/tl/supporting/assessment/Assessment%20Checklist.doc</a>
UTS	University of Technology Sydney	<a href="http://datasearch.uts.edu.au/search.cfm?q=assessment+guide&amp;btnG=Go">http://datasearch.uts.edu.au/search.cfm?q=assessment+guide&amp;btnG=Go</a>
UWA	University of Western Australia	<a href="http://www.secretariat.uwa.edu.au/__data/page/20809/Min-Essen-Good-Pract.pdf">http://www.secretariat.uwa.edu.au/__data/page/20809/Min-Essen-Good-Pract.pdf</a> <a href="http://www.secretariat.uwa.edu.au/__data/page/20809/Min-Essen-Good-Pract.pdf">http://www.secretariat.uwa.edu.au/__data/page/20809/Min-Essen-Good-Pract.pdf</a>
VU	Victoria University	<a href="http://wcf.vu.edu.au/GovernancePolicy/PDF/POA060207000.PDF">http://wcf.vu.edu.au/GovernancePolicy/PDF/POA060207000.PDF</a>

## Appendix B - Data<sup>1</sup>

		Group 8						ATN				Innovative					New Generation							Other						
Rqt.	Attribute	ANU	UniMlb	UNSW	UQ	USYD	UWA	Curtin	RMIT	UniSA	UTS	Flinders	Griffith	Latrobe	Murdoch	Newcastle	ACU	CQU	ECU	USC	USQ	UWS	VU	CDU	Deakin	JCU	UNE	UOW	UTAS	
1. Objectives																														
1.1	Assessment should help (motivate) students to <b>learn</b> (i.e. educative purpose)		✓	✓					✓	✓		✓	✓	✓	✓	✓			✓	✓	✓	✓			✓	✓	✓	✓		
1.2	Assessment should be <b>criterion-referenced</b> whenever possible (rather than norm-referenced)				✓	✓			✓			✓			✓	✓		✓					✓	✓					✓	
1.3	Assessment should assist students to achieve <b>professional standards</b> of work in the relevant field					✓						✓		✓			✓				✓		✓					✓		
1.4	Assessment should <b>judge</b> how well students have achieved stated <b>learning outcomes</b> (assessment tasks and criteria align with learning outcomes)	✓		✓	✓	✓	✓		✓			✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓
1.5	Assessment should help students to improve <b>generic</b> (vocational skills, graduate qualities) capabilities, such as: become effective problem solvers; prepared for life-long learning; interdisciplinary view.			✓		✓			✓	✓						✓				✓	✓	✓	✓			✓		✓	✓	
2. How students learn																														

<sup>1</sup> See Appendix A for list of acronyms

		Group 8						ATN			Innovative					New Generation							Other						
Rqt.	Attribute	ANU	UniMlb	UNSW	UQ	USYD	UWA	Curtin	RMIT	UniSA	UTS	Flinders	Griffith	Latrobe	Murdoch	Newcastle	ACU	CQU	ECU	USC	USQ	UWS	VU	CDU	Deakin	JCU	UNE	UOW	UTAS
2.1	Assessment should be <b>progressive</b> over time to reveal the changes that take place as a student learns			✓	✓	✓				✓	✓	✓				✓		✓		✓	✓	✓					✓		✓
2.2	A <b>diverse</b> range of assessment instruments and processes should be employed			✓	✓				✓	✓	✓	✓		✓		✓	✓	✓	✓	✓	✓	✓		✓			✓	✓	
2.3	Assessment tasks should be appropriate to all students without favour or disadvantage to any (i.e. <b>fair and equitable</b> )	✓	✓	✓		✓			✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2.4	Students should be involved in their <b>own assessment</b> wherever possible (designing assessment, assessing own work)			✓	✓					✓		✓				✓			✓				✓			✓	✓		
3. Assessment as part of learning																													
3.1	Assessment should be an <b>integral</b> component of course design			✓	✓				✓				✓		✓	✓			✓	✓							✓		✓
3.2	Assessment tasks should allow students to demonstrate <b>deep</b> understanding of the key concepts (e.g. through analysis, synthesis, evaluation, and critical reflection)			✓	✓	✓				✓	✓			✓		✓		✓			✓			✓		✓			✓
4. Assessment Tasks																													
4.1	Assessments tasks should be <b>clear</b>		✓	✓		✓					✓		✓	✓				✓	✓		✓		✓	✓		✓			✓
4.2	Assessments tasks should be <b>specific</b>			✓		✓							✓					✓	✓	✓									
4.3	Assessment tasks should be <b>meaningful</b> (authentic, real life)			✓							✓			✓		✓										✓			✓

		Group 8						ATN				Innovative					New Generation							Other					
Rqt.	Attribute	ANU	UniMLb	UNSW	UQ	USYD	UWA	Curtin	RMIT	UniSA	UTS	Flinders	Griffith	Latrobe	Murdoch	Newcastle	ACU	CQU	ECU	USC	USQ	UWS	VU	CDU	Deakin	JCU	UNE	UOW	UTAS
4.4	Assessment tasks should address a <b>variety</b> of learning outcomes (rather than repeatedly test one outcome)													✓		✓		✓		✓		✓		✓	✓	✓		✓	
4.5	Assessment tasks should be designed to <b>minimise</b> the chances of plagiarism			✓																	✓						✓	✓	✓
5. Assessment Criteria																													
5.1	Assessment criteria should be <b>clear</b>	✓	✓	✓	✓	✓		✓		✓	✓	✓		✓	✓			✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓
5.2	Assessment criteria should be <b>specific</b> (i.e. should describe the required standards of knowledge, skills, competencies and capabilities)		✓	✓		✓	✓		✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	
5.3	Assessment criteria should be <b>valid</b> (measure what is intended - i.e. attributes, skills, concepts, thinking processes - all at the right level)		✓			✓			✓	✓	✓				✓									✓	✓	✓	✓	✓	
5.4	Assessment criteria should be <b>justifiable</b> (explain rationale)					✓																✓		✓			✓		
6. Assessment Outcomes																													
6.1	Assessment outcomes should align with educational <b>values</b> (of the university)					✓						✓	✓		✓					✓				✓		✓	✓		
6.2	Assessment outcomes should align with the <b>students' goals</b>												✓		✓	✓								✓		✓			

		Group 8						ATN				Innovative					New Generation							Other					
Rqt.	Attribute	ANU	UniMlb	UNSW	UQ	USYD	UWA	Curtin	RMIT	UniSA	UTS	Flinders	Griffith	Latrobe	Murdoch	Newcastle	ACU	CQU	ECU	USC	USQ	UWS	VU	CDU	Deakin	JCU	UNE	UOW	UTAS
6.3	Assessment outcomes should align with <b>community goals</b>					✓						✓												✓		✓			
6.4	Assessment outcomes should be justifiable (i.e. valid, consistent and <b>reliable</b> )	✓	✓		✓	✓		✓	✓	✓	✓				✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓		✓	
6.5	Assessment outcomes should align with <b>government</b> goals					✓																		✓		✓			
7. Feedback																													
7.1	Students should receive <b>specific</b> , constructive and developmental feedback on their learning and performance	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓
7.2	Feedback should be <b>timely</b> (i.e. in time to inform the next task, or other deadline)	✓	✓	✓	✓	✓		✓		✓	✓	✓	✓	✓	✓			✓	✓	✓			✓	✓	✓	✓		✓	✓
7.3	Feedback should be <b>supportive</b> of the student (i.e. should not demoralise or humiliate students)	✓				✓													✓					✓		✓			
7.4	Assessment instruments and processes should be the subject of continuous <b>evaluation and adjustment</b> .	✓				✓			✓		✓	✓	✓		✓					✓	✓	✓	✓	✓	✓			✓	✓
8. Workloads																													
8.1	The amount of assessment should provide enough evidence to judge a <b>student's learning</b> , but avoid excessive assessment (including coordinated timing in a program)		✓	✓	✓		✓	✓	✓	✓					✓	✓	✓	✓		✓	✓	✓		✓		✓	✓	✓	✓



		Group 8						ATN				Innovative					New Generation						Other						
Rqt.	Attribute	ANU	UniMlb	UNSW	UQ	USYD	UWA	Curtin	RMIT	UniSA	UTS	Flinders	Griffith	Latrobe	Murdoch	Newcastle	ACU	CQU	ECU	USC	USQ	UWS	VU	CDU	Deakin	JCU	UNE	UOW	UTAS
8.2	The amount of assessment should not incur an excessive workload on the <b>lecturer</b>		✓		✓					✓											✓					✓	✓	✓	
8.3	The <b>effort</b> involved in an assessment task should be commensurate with the value awarded to the task		✓	✓		✓			✓				✓			✓			✓	✓				✓		✓		✓	✓
9. Standards																													
9.1	Assessment should uphold the highest academic standards (typically certified or <b>accredited</b> )		✓			✓			✓			✓	✓	✓	✓	✓			✓	✓	✓	✓				✓		✓	✓
9.2	Assessment should uphold the highest <b>ethical</b> and moral standards		✓											✓	✓						✓	✓							
9.3	Assessment outcomes should be <b>confidential</b>		✓			✓				✓			✓									✓	✓		✓				✓

## Appendix C: Votes for attributes

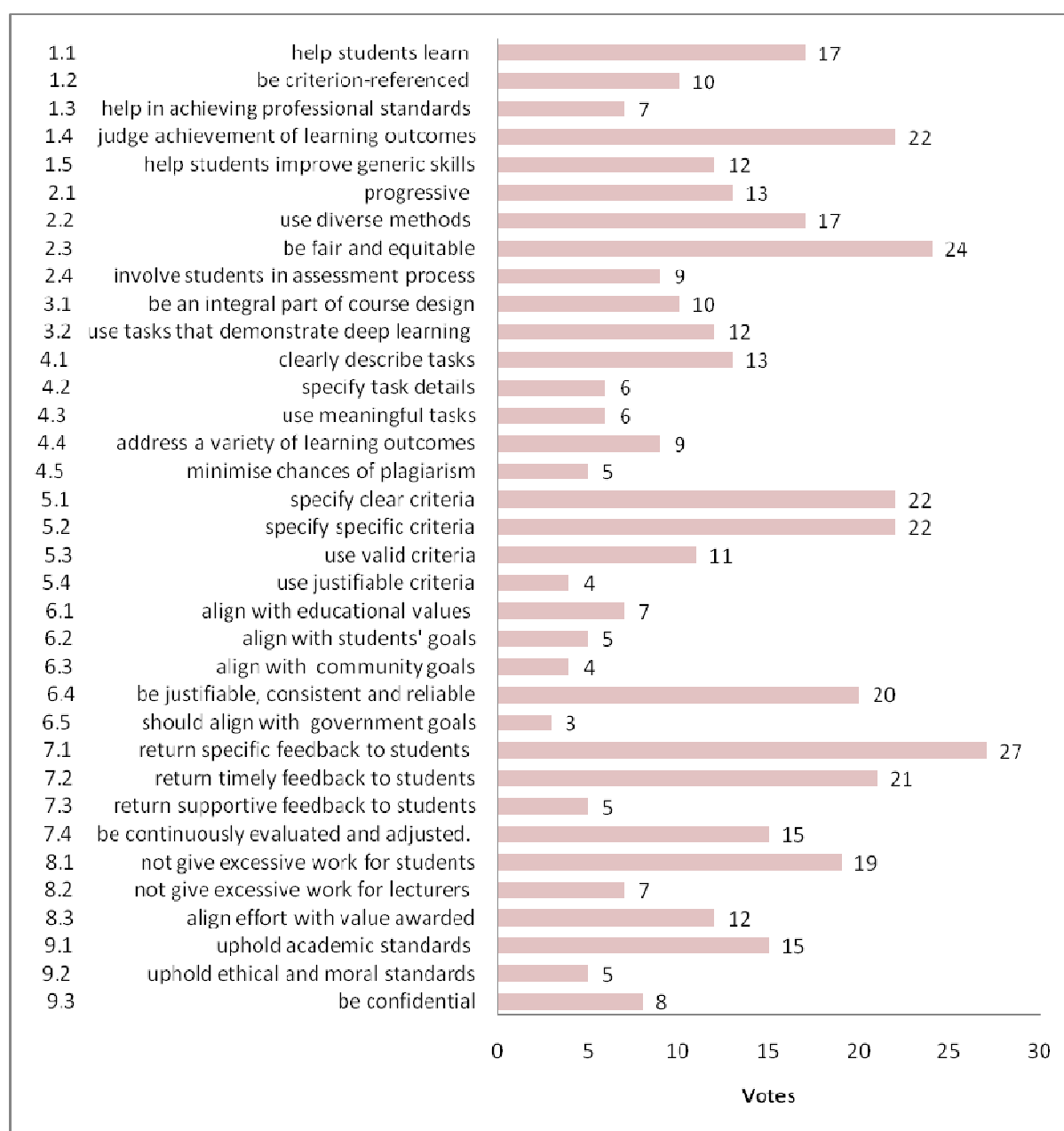
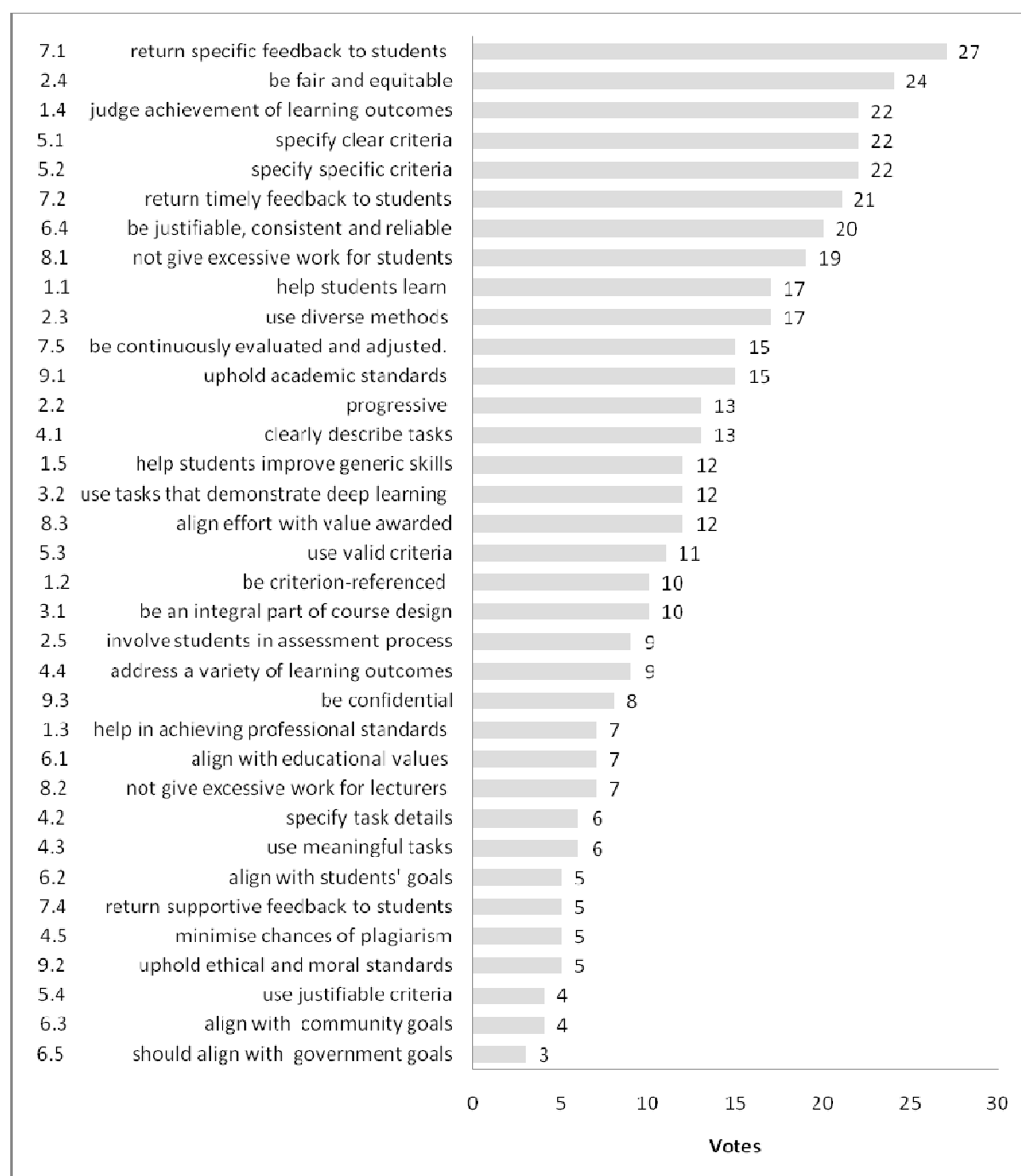


Figure 1: Number of votes in sequence



**Figure 2: Number of Votes in priority order**