

THE IMPACT OF ASSESSMENT ON LEARNING

Dr. Clive Beaumont Kings
Senior Fellow
School of Education
Nanyang Technological University
National Institute of Education

INTRODUCTION

In this paper some analyses of case studies on assessment of student performance at the tertiary level are reported with a view to providing some guidelines for continuous improvement of assessment practices.

It is clear that the nature of assessment tasks is a major factor in determining what and how students learn; for example, whether students only learn facts or whether students use or apply concepts and facts, is dependent on the type and quality of assessment techniques used.

The importance of this study lies in the fact that at the tertiary level setting assessable tasks and marking them is an important part of a lecturer's role. Meeting the requirements of these tasks is an important part of a student's role. If assessment is so time consuming and crucial in determining which students successfully complete their studies, the issues related to assessment and its relationship to learning warrant more prominence in the research literature. It is imperative that assessment practices should be relevant, of high quality and promote meaningful learning if the workplace is to become more efficient and effective, and society is to develop.

BACKGROUND TO THE STUDY

It is asserted that assessment of student performance is an important but often neglected issue. It is argued that assessment should be meaningful, have a positive impact on student learning and at the same time be valid and reliable. The range of assessment techniques and procedures are considered together with some issues of quality control and ways of overcoming limitations on assessment practices.

Assessment of Student Performance - A Neglected Issue

In the tertiary environment, assessment of student performance is a crucial activity and yet it is often shrouded in mystique, governed by tradition, and has the tendency to be notoriously inadequate.

With respect to the importance of assessment of student performance, Kings and Poh (1993) point out:

Within the higher education culture, setting students assessable tasks and marking them is a dominant part of a lecturer's role. Teachers in schools have been found to spend more than one-third to one half of their instructional time allocated to a_sessment and assessment-related mat_ers in the classroom (Schafer, 1991).

Based on data on time spent on academic roles by Australian academics (Hedberg and Kings 1979), it can be asserted that the proportion of time allocated to the assessment role by tertiary academics is of the order of 25 percent. This lower percentage can in part be explained by the fact that academics on average spend 15 percent of their time on administration and committee work and about 17 percent of their time on research related activities. Clearly since the time of that study

decreasing staff to student ratios would have increased the marking loads of many academics. The assessable tasks also demand a high proportion of a student's time in preparing for and mee_ing the requirements of set tasks. It is common knowledge that students want to know such things as which lectures and which readings are the most important ones in the hope of successfully meeting the examination requirements. In summary, assessment remains a significant role for most academics and for all students.

If so much time is spent by both students and lecturers on assessment, we might justifiably consider the extent to which it can effectively facilitate students learning and enable judgments to be made about which students have reached an appropriate standard. Kings (1993) cites a number of indisputable propositions about assessment arising out of an international teleconference:

Students are expected to guess the nature of assessment requirements.

Assessment requirements are a totally separate situation to what happens in class lecture and tutorial sessions.

Assessment techniques / procedures are used to cover only a very small range of the course objectives.

Most assessments are written tasks.

Lecturers are generally unclear about how they will mark assignments.

The focus of assessment is often unclear to the students.

' Practical' assessment is time

consuming and lacks direction.

Assessment is badly planned by lecturers and leads to work overload for students and lecturers towards the end of each semester.

Assessment is usually used for summative rather than formative purposes.

A great amount of assessment is covered by examinations. (144,145)

A number of studies on assessment would support these propositions (e.g. Baldwin, 1993; Brown & Knight 1994; Kings, 1993; Ramsden, 1992).

These propositions, although not representative of all assessment contexts, are indicative of the precarious foundation upon which judgments can be made about assessment standards and therefore which students are accorded graduate or postgraduate status.

In view of the above propositions it is abundantly clear that disenchantment with various aspects of assessment practices is inevitable for many lecturers and for many students. Thus it is argued that more attention should be given to the process of assessment of student performance. As Brown and Knight (1994) comment:

Assessment is still not the high-profile issue which it should be,

given the argument that it is assessment arrangements which determine the curriculum in action. This can be well illustrated by looking at the reports of the Academic Audit Unit (AAU). A review of 23 of the 27 audit reports related to visits done between March 1991 and June 1992 found that very little was said about universities' assessment systems. (p46)

Since successful graduates and postgraduates contribute to the workforce, it is imperative that assessment practices should be relevant and of high quality, if graduates prepared for the workplace are to be efficient and effective in their future work roles.

The Nature of Assessment

There are a number of critical but interrelated questions that need to be addressed in considering the nature of any assessment strategies to be used, viz:

Are the assessment strategies meaningful?

What positive impact will assessment have

on student learning?

How valid and reliable is the
assessment?

Meaningful Assessment

Meaningful assessment, it is argued, should reflect the true nature of the profession, vocation or practice under scrutiny and at the same time reflect the true nature of the discipline.

Professional, Vocational and Practical Relevance

Meaningful assessment can relate to the nature of the objectives underscoring the assessment. From one point of view it can be considered as the extent to which the objectives are professionally or vocationally relevant. In Australia concern has been raised in the report *Priorities for Reform in Higher Education* (Senate Standing Committee on Employment and Training, 1990) about the lack of higher objectives and problem-solving abilities underpinning undergraduate courses. Karmel (1990) cites the following list of abilities published by the University Grants Committee of abilities most valued in industrial and commercial professional life as well as in public and social administration:

analyse complex issues;

identify the core of a problem and means
of solving it;

synthesise and integrate disparate
elements;

make effective use of numerical and
other information;

work cooperatively and constructively
with others; and

communicate clearly both orally and in
writing. (p335)

As Kings and Poh (1993) comment:

Such abilities listed above can be argued to underpin most disciplines and can therefore be considered generic. The emergence of the workforce competency movement, evident in the western world (Carmichael Report, 1992; Deveson Report, 1992; Finn Report, 1991; Mayer Committee, 1991) has been mirrored in Singapore by the emphasis being placed on more on-the-job training (The Straits Times, November 10, 1993). This

movement has added emphasis to the discussion for using generic and professional competencies as a basis for the development of tertiary curricula and in the development of relevant assessment practices. The competency movement adds weight to the importance of using high level objectives and workplace oriented competencies to underscore student assessment (Gonczi et al., 1990; Heywood, I., 1992).

The recognition of prior learning (Broadmeadows College of TAFE, 1990; Kings and Braddy, 1992) provides a basis for consideration of assessment. Some case studies based on the personal experience of the author serve to illustrate some inconsistencies in assessment practices.

Case 1

Students who wish to be exempt from a module on Management and Team Building

in one instance were required to give a portfolio of information about the process of actually having engaged in the process of team building.

In contrast to pass the module the on-course students had to do a long assignment on team building.

Case 2

In a module on Curriculum Development the on-course assessment comprised an essay reflecting critical thought on the curriculum process. In the assessment of prior learning evidence had to be provided of actually having engaged in a curriculum process and have some type of actual product to report.

It becomes clear that the processes for which prior learning will be granted are far more relevant and meaningful to the situation in question since they reflect the competencies of the profession. In a similar vein it could be said that practical disciplines, say in the Arts, which may not necessarily be vocationally oriented can hardly be realistically assessed without engaging in some forms of practical performance.

From a review of the above issues it was proposed that the study on tertiary assessment should address the use and types of objectives underscoring assessment practices.

Relevance to the Discipline

From another point of view, assessment can be considered relevant if it reflects the nature, truths, processes of inquiry and interrelationship of concepts underpinning a discipline. In history, for example, Carr (1961) would argue that history is characteristically related to past events and that the process of inquiry involves analysis of the context of given events, and, furthermore, involves looking at archival material and comparing past documentary evidence. Such a process of inquiry would seem to provide one focus of any assessment practice. As Brown and Knight (1994) comment:

Some universities have got into a rut, believing, for example, that history is about writing essays and that history students should therefore be assessed by essays. The best that can be said about this is that it is nonsense as a view of history and purblind as a response

to the pressures on universities to demonstrate the breadth of their students' achievements. Multiple methods are necessary to assess multiple talents for multiple audiences. (p23)

As a discipline, science also has its own characteristics. Studies based on a number of Australasian universities have shown that assessment of practical work is neither clearly defined nor does it often reflect the true nature of scientific inquiry, but rather it is based on a recipe approach to practical work (Kings, Graham & Thomas, 1992; Kings & Thomas, 1993). It is often true that the nature of science is not truly reflected and that the objectives or intentions of practical work are not clearly worked out. This is no less true as pointed out by Kings and Humphries (1991) in the health sciences:

Overall there has been a perception that good clinicians will be developed as a result of 'frottage' practice, that is by rubbing shoulders with practitioners and partaking in a range of vague or unprescribed tasks for a given number of hours. Reports by supervisors on students' clinical practice often have limited focus. (p 3)

Impact of Assessment on Student Learning

The selection of assessment strategies can influence the way students learn. At the same time successful learning will depend on students being clear about the criteria by which they are being assessed.

Deep and Surface Learning

It is important to recognise that assessment practices used by lecturers determine the extent to which students engage in deep or surface learning (Marton and Saljo, 1976, 1984; Biggs, 1987; Gibbs, 1992). If students are asked to recall information in final examinations then students are more likely to rote learn what they perceive to be the appropriate information. There is no guarantee that they could apply this information to something problem-centred. If students are expected to undertake real problem solving as part of their final assessment, students will need to engage in appropriate deep learning. Thus assessment is perceived as one of the major determinants of student learning and is patently an integral part of the teaching process (Ramsden, 1992).

As Ramsden (1992) states:

The widespread use of surface approaches to learning, and the related fact that students may successfully complete their courses while never

gaining an understanding of fundamental ideas which the teachers of those courses themselves desire those students to gain, together indicate beyond reasonable doubt that much assessment in higher education is flawed. (182)

In this study the author wanted to explore the ways in which lecturers developed assessment which encouraged students to engage in deep learning.

Assessment Criteria and Student Self-Evaluation

It is not an uncommon experience for students to have to guess what is expected of them when endeavouring to achieve a good score on assessment tasks. Experience shows that there is a clear case for assessment criteria being made explicit since this results in dramatic improvement of student work. Corresponding to students' levels of knowledge, skills and abilities, criteria for early assessment tasks in first year should be different to later assessment tasks in the final year of study: later ones reflecting more advanced and complex learning appropriate to the stage of students' development. It should be

appreciated that explicit criteria may be given to students, achieved through negotiation between lecturer and students or, for later-year students, identified by the student. The crucial point is that once the criteria are made explicit for students, they are more likely to fulfil lecturers' expectations, particularly when criteria are also used as the basis of student self- or peer- assessment (Gibbs, 1992).

By implementing student self-assessment, students take full responsibility for their own learning. This approach encourages students to learn and recognise their own strengths and weaknesses, so that they can remedy weaknesses and better manage their own learning (Boud, 1986). As summarised by Kings (1992):

The embodiment of self-assessment practices in planning for student learning necessarily empowers students in their own learning. Schemes of self-assessment have been operating successfully for a number of years. They may be a whole way of life such as at Alverno College (Alverno College, 1979; Schall et al, 1984) or there may be individual practitioners who have adopted its practices. It would seem reasonable for every teacher to implement such a scheme.(p 148)

Based on this discussion it seemed appropriate to explore the use of assessment criteria and the use of self- and peer-assessment in this study.

Formative Aspects of Assessment

It has been asserted that assessment determines learning. This can be true whether by multiple methods of assessment or by a narrowly focussed examination. Although, as pointed out, the extent to which

students are guided in their learning will depend on how explicit the objectives are, as well as on the clarity of performance criteria. Another aspect of assessment is that it can encourage value-added learning where the learner is being provided with ongoing feedback on performance, whether on graded or ungraded assessment tasks. That is, they are being formatively assessed. This is always true in hermeneutic assessment as well as self- and peer-assessment. The issue of whether we want students to learn in a vacuum or whether we want students to learn appropriately is of paramount importance when addressing assessment strategies.

Validity and Reliability of Assessment

The familiar psychometric approach has dominated assessment practice. It has depended on independently scored performances. Interestingly, theory provides little guidance of how to combine these scores or the information provided by these scores. Only limited attempts are made to ensure face validity, i.e. that appropriate objectives have been spelt out and that content is sampled and that the assessment techniques and procedures are appropriate to the objectives. The moderation process is more often than not based on a redistribution of marks and not on a consensus model whereby the objectives/intentions of the course are compared, appropriate assessment procedures devised and then marks reviewed in the light of objectives. It is always interesting to note that lecturers are often not involved in development of the examinations for which they are preparing students. The process of moderation is more usually an end-on tidying up process that reflects little on quality control of assessment. The worst scenario of moderation involves lowering the pass mark to let more people pass. Thus marks can be beautifully manipulated but whether or not they mean anything or help students to learn are moot points. Often assessment of student performance is made without any real knowledge of the student, the context and the processes engaged in. The canons of traditional assessment still prevail in most educational

institutions since their limitations are either unrecognised or ignored.

But what of a hermeneutic approach? As Moss (1994) states:

A hermeneutic approach to assessment would involve holistic, integrative interpretations of collected performances that seek to understand the whole in the light of the parts, that privilege readers who are most knowledgeable about the context in which the assessment occurs, and that ground those interpretations not only in the textual and contextual evidence available, but also in a rational debate among the community of interpreters. Here, the interpretation might be warranted by criteria like a reader's extensive knowledge of the learning context; multiple and varied sources of evidence; an ethic of disciplined, collaborative inquiry that encourages challenges and

revisions to initial interpretations; and the transparency of the trail of evidence leading to the interpretations, which allow users to evaluate the conclusions for themselves. (p 7)

In such an approach assessment is grounded in theory and reality, and allows students to engage in experiences that reflect a variety of objectives that might otherwise have been missed. Thus the approach can be argued to have true validity.

The Use of Objectives

Whatever approach to assessment is implemented, it is important that clear intentions or objectives are expressed. As stated by Kings and Poh (1993):

It is generally acknowledged that outlines of courses or modules should include statements of objectives as explicitly stated behaviours. This will ensure that students do not have to guess or assume what is in lecturers' minds, but rather that they can clearly understand what is expected of them so that they are more likely to acquire the appropriate knowledge, skills and abilities to fulfil the requirements of the course.

What is of equal importance is to ensure that the assessment is valid, i.e. that the assessment strategies selected are relevant to the stated objectives. If this is not the case the students can have been misled.

The point is that the objectives of any course need to be made explicit if students are going to learn efficiently and effectively. As previously discussed any objectives should be relevant to such things as the profession and the discipline.

Which Assessment Techniques and Procedures do Lecturers Use ?

It is alleged that for most course units/modules lecturers commonly require students to complete written assessment tasks of a narrowly prescribed type. In one study by Kings (1987a,1987b) of 90 (non-Dip Ed) graduate diploma courses in Victoria, Australia, the range and number of assessment techniques and procedures used was reported. In summarising the data Kings (1987b) says:

One thing that stands out from the data is that the greatest emphasis in courses is on written assessment, particularly assignments, tests and examinations. The most common form of assessment task was the assignment since it provided a part of the assessment plan of all courses.(p 420)

Kings and Sivamalai (1992) in a study of Australian distance education assessment practices concluded that written assessment was the most dominant form of assessment, that assessment tasks reflected a narrow range of objectives and reflected a low level of professional and work

orientation.

Furthermore, Kings and Poh (1993) in a study of the assessment practices of 20 Singaporean lecturers, participants in the 1993/4 Postgraduate Diploma of Teaching in Higher Education Program, came to the following conclusions:

The assessment load for modules varied considerably.

There was little emphasis on formative assessment.

The assessment techniques which were used embodied a narrow range of objectives.

The emphasis in assessment was on written assignments of various types with the emphasis on three-hour examinations.

These same experiences are commonly reported. We need to address how lecturers can assess whether students are good problem-solvers, good communicators and have a range of high level cognitive, affective and psychomotor skills. Such an approach to assessment necessitates skilled and careful development of a range of assessment tasks which probe relevant objectives appropriate to the profession and the discipline, and are both valid and reliable.

In Kings'(1987b) study it was also apparent that only 11 of 90 courses in Victoria included any practical work - laboratory, fieldwork or work experience course components - as part of the assessment plan. Kings summarises, 'It is clear that the link between theory and practice is often tenuous as reflected by the assessment tasks set'(p 420). Anecdotal evidence would support the contention that the limitation of assessment practices apparent for postgraduate courses would be little different if relevant information were gathered from undergraduate courses. Following this line of argument Kings (1992) further comments:

The limited range of assessment techniques and procedures used in most courses is clearly inappropriate to test the full range of stated outcomes. It would seem appropriate that skills related to practical applications of theory, higher order and problem-solving skills should be reflected in the assessment plan of course units. For example, constructing and leading discussion, speaking to large groups, consulting with individuals, developing materials and models, engaging in individual and group problem-solving, and undertaking research and simulation exercises.(p 4)

The above considerations indicated that through the choice of assessment techniques and procedures it is possible to encourage

student learning and, therefore, ensure that higher abilities and workplace competencies are more likely to be developed. Thus in this study the nature of assessment tasks and the objectives they reflect were seen as important issues to explore.

Experience would indicate that relatively few lecturers, for one reason or another, use a broad range of assessment techniques in their course planning. However, there is a vast range of assessment techniques available to lecturers. The range includes the following reported practices: open book examinations (Gray, 1993), oral communication (Hughes and Large, 1993), action learning projects (Barker, 1993),

work-based assessment (Bennett, 1993) and a range of other techniques (Gibbs, 1986; Brown and Knights, 1994). These practices require the lecturer to have knowledge of the assessment techniques and to have the ability and experience to put these into practice. The lecturer also must have the support of institutional policies and authorities so that a broader range of course objectives related to the discipline can be met. Thus a further important issue to be addressed in these case studies is the nature of assessment tasks used by lecturers and the ways in which they have accommodated a variety of relevant learning objectives.

Management of Quality in Student Assessment

Quality management of assessment is of paramount importance in two respects, firstly with respect to assisting students manage their learning and, secondly, with respect to ensuring quality in the assessment practices. With respect to the former, it would seem reasonable to assert that students need a basis on which to organise their time and to undertake assessment tasks efficiently. The provision of a study guide with objectives and assessment tasks at the start of each unit would assist in this. Students find it valuable to receive feedback on their assignments. In particular, students like to have marked assignments back promptly with adequate comments to help them and the opportunity to discuss these assignments with lecturers where necessary (Kings, 1987a; Crooks, 1988). Such management issues are of importance and, in particular, the issue of feedback since it is a formative dimension of assessment. It is also important to consider issues of quality from the lecturer's point of view and the ways of coping with quality assessment (Andresen et al, 1993). However, these issues were not the major focus of this study.

With respect to the second point of assuring quality of assessment practices the author recognises the importance of moderation practices in the development of quality assessment tasks, that is, where lecturers work collaboratively in the following practices: specification of learning objectives, the planning of assessment, the development and vetting of assessment tasks, the award of grades and marks and the review of standards. Within this context it is also

clearly important that an assessment plan should reflect appropriate objectives and that appropriate assessment techniques are used which will ensure that the assessment is valid. It was therefore considered useful to explore the ways lecturers maintain quality control over assessment.

Limitations on Assessment Practices

There are many limitations as to what techniques might be actually used in any assessment plan. These can include institutional policies, interpretations of policies, the types of objectives specified, the numbers of students to be assessed, availability of resources, the moderation procedures and the skills and abilities of lecturers. With respect to the last limitation, it is important for lecturers to be able to construct a range of assessment techniques and know how to judge when it is appropriate to use them. Furthermore, lecturers also need to be able to construct a defensible assessment plan, develop or negotiate assessment criteria, or undertake effective moderation procedures. However, it is not surprising that many lecturers have not acquired these skills since they often have no formal education in teaching and learning which is fundamental to carrying out their lecturer roles. In some institutions this situation is partly remedied by providing the opportunity for lecturers to partake in seminars or short courses related to teaching and learning. However, it is interesting to reflect that lecturers may spend seven or eight years of their lives qualifying in their respective disciplines but spend little

or no time on learning about the skills and abilities related to the roles for which they have been appointed by their institutions.

Improvement of assessment practices are dependent on the quality assurance processes of the department and on the knowledge, skills and abilities lecturers have with respect to assessment. It was therefore proposed in this study to provide a portrayal of good practice which may assist lecturers in determining their assessment practices.

APPROACH

A series of case studies was undertaken to explore examples of current and potential practice in devising assessment tasks. Emphasis was given to continuous assessment practices, but inevitably references to the examinations were frequently made in the course of interviews. The major purpose was to document some elements of desirable practice, including the context of that practice, that would be useful to share with other academics. The case studies, based on semi-structured questionnaires, follow-up interviews and relevant documentation were analysed to determine the:

relevance of the objectives to the context, discipline and workplace, used to underscore the assessment;

nature of the assessment techniques and procedures to promote deep learning;

context in which assessment practices were used;

nature of the criteria for the assessment;

use of criteria to empower students in their own learning; and quality control of assessment practices; and

limitations in the implementation of desirable assessment practices.

RESULTS

The results have to be seen in context. Some units, particularly core modules, were subject to a university regulation where generally a minimum of 70 percent of the marks had to be allocated to an end of semester examination, although there were variations in the interpretation of this yardstick. In other instances, modules often comprised only continuous assessment.

Nature of the Assessment Techniques

The Percentage of Marks Allocated to Continuous Assessment

The case studies revealed a clear picture of lecturers preferring to have more weighting for continuous assessment where it was currently limited. A common point was that at least a proportion of the marks should be allocated to continuous assessment as this was an opportunity to assess the application of knowledge, while the examination was an opportunity to assess the acquisition of knowledge. On the other hand, some lecturers wanted the examinations abolished where they existed, so that emphasis could be placed on the basic skills and processes underscoring the subject.

Continuous assessment was seen as the opportunity to engage students in the processes of the subject, for example; in history using contextual analysis; and in curriculum development using such skills as group planning, delegation of tasks, retrieval of information, selection of information and development of a group action plan. Co-operation and collaboration were significant features of many of the continuous assessment tasks.

The Types of Assessment Tasks

In general, assessment tasks comprised written assignments emphasising

the product. However, the nature of these written assignments varied. The common endeavour was to relate the nature of the task as closely as possible to the knowledge, skills and abilities underpinning the profession or discipline.

With respect to subjects with a practical component, emphasis was sometimes placed more on the development and at other times on the product. In music, the assessment tasks comprised a musical performance in one module and a recital in another. The musical performance is an example of one teacher engaging in a continuous developmental process with the student throughout the assessment. In engineering, a laboratory report, the product of the practical, comprised the assessment. Typically practical assessments were only allocated 10 to 20 percent of the total marks for a module.

Ungraded Assessment Tasks

Ungraded tasks are commonly used as part of tutorials or workshops. A common mode of operation was for groups of students to be asked to address specific questions, analyse documentation or data and to give feedback to the class as a whole. In many cases feedback was provided by different groups, thus expanding the range of material covered and providing a greater spectrum of ideas for participants to respond to. The feedback was sometimes verbal, often given on transparencies and in some cases typed up, duplicated and distributed to all participants during the following session.

Where a module was assessed using an examination, a particularly useful approach was to relate the class activities to the processes, skills and abilities that students would have to tackle in examinations. Where a module was assessed by some type of assignment, there was merit in basing the activities around the processes, skills and abilities required of students in assignments.

Lecturers in many cases saw that there should be a close relationship between the tutorial/workshop activities and the lectures and ipso facto both types of activities should relate to the objectives/intentions of the module.

Examinations

Although this study was not specifically about examinations, issues were inevitably raised about this issue, particularly in relation to the nature of the examination and its relationship to professional practice or the nature of the relevant discipline. In some cases, lecturers wanted the examinations abolished as they felt students engaged in the model essay syndrome, since this was seen to be as rife compared with plagiarism in continuous assessment. In other cases lecturers saw the value of ensuring that students had acquired some essential concepts relating to the discipline.

A strong feeling among some lecturers was that the nature of any final examination should assess essential skills that relate to the

discipline. In music, for example, in some questions students had to listen and apply their knowledge and skills in their responses. In other disciplines documents and data were provided for analysis to avoid giving credit for purely descriptive answers.

Objectives Underscoring the Assessment

Lecturers usually provided course outlines with very specific behavioural objectives so that students could see quite clearly what they were required to learn. For example, in a module on 'School-based Assessment and Evaluation' some objectives were:

To identify given assessment requirements.

To collaboratively develop and assessment plan.

To develop procedures for self-assessment.

Alternatively, lecturers gave students verbal information about the objectives.

Most lecturers were aiming to help students explore a great range of objectives so as to enhance professional skills and the processes underpinning the disciplines. The evidence was that lecturers were continuously trying to improve their own practice in this regard.

Assessment Criteria

The criteria were made explicit, either in written form or verbally. In most cases the criteria were provided by the lecturer, while in other cases, they were negotiated between lecturer and student. The criteria were written in a number of ways. For example, for one section of a project on 'Problem-solving Strategies of Young Children' students were given the criteria as:

Comprehensive, insightful, informative.

Sufficient number of references.

Frequent, relevant referral to references.

Accurate, logical interpretation of data.

In another example, the criteria given for an assignment on multiple-choice item writing were

Originality of the items.

Range of objectives covered.

Variety in the assessment items.

Appropriateness of the decisions for change based upon panel comments.

Appropriateness of the decisions based upon statistical analyses.

Quality of presentation of the final

test.

There were many examples given. In some cases lecturers asked the students to engage in self-assessment. In graded assignments this may have provided a component of the final score. In all cases, where self- or peer-assessment was used, it was felt to be important feedback for the learners, and empowered them in their learning.

Quality Control

Quality control of assessment often involved collaboration of 'course teams', and in other cases, it involved more informal collaboration between academics. It was more usual for vetting to take place by the Head with respect to examinations. Some lecturers used a table of specifications as the basis of devising assessment practices. In some cases, double marking occurred, and in other cases, samples of 'scripts' were double marked.

Limitations to Desirable Assessment Practices

It was felt by some lecturers that limitations with regard to assessment practices could be overcome if greater flexibility could be provided with respect to the weighting given to examinations and to continuous assessment. Moreover, some staff felt as professionals that they could be more involved in the assessment process. It was also mentioned that the students wanted to do as little as possible, and/or not be put in the position of having to apply information. It was commonly felt that lecturers could be perceived as too challenging which made students uncomfortable. The students responded by giving low evaluations. This issue of how students resisted challenging assessment was frequently reported.

DISCUSSION

The context in which assessment is usually discussed is somewhat

limited by the perception of assessment as only encompassing continuous graded assessment and examinations. This situation is somewhat unrealistic since both students and lecturers already engage in other informal assessment practices. Examples are as follows:

(i) Students are continuously assessing themselves individually and in groups, albeit sometimes against unclear criteria prior to engaging in any formal assessment processes.

(ii) Lecturers may to varying degrees consciously or unconsciously engage in assessment of what students do or do not know. Clearly this engagement will depend on whether lecturers are actually interacting with the students. Didactic lectures and tutorials ipso facto will provide only non-verbal feedback to the lecturer. Verbal, informal written demonstrated responses will indicate to the lecturer whether students understand the discourse or not.

Thus we have often confused formal and informal assessment and failed to understand their significance and relatedness to the teaching-learning process. The results of this study clearly demonstrated that lecturers were, within the context, endeavouring to provide a rich, meaningful and varied approach to assessment. Moreover, they were endeavouring to interweave the assessment with the teaching.

The ways of encouraging informal assessment included:

providing structured reading,
observational, research and other tasks as preparation for tutorials
and workshops.

encouraging group interaction during the
preparatory phase of an task.

encouraging individual responses in
lectures, seminars and workshops.

encouraging group verbal and written group
responses during seminars and workshops.

sharing of responses with others in the
class.

encouraging critical and constructive
analysis of responses in class.

linking of activities between lectures,
tutorials, workshops and formal assignments.

The author agrees with Ramsden (1992) that the integration of

assessment and teaching and learning is clearly a desirable direction in which to move because the two dimensions of curriculum are highly interrelated. It was clear that those engaged in effective assessment practices were endeavouring or wanting to engage students in formative assessment practices. Opportunities were given to students to engage in group feedback sessions. It is no doubt an important argument that a more structured formative assessment direction will facilitate a greater enhancement of learning and change the nature of learning.

Some key principles underscoring the assessment tasks emerged. These were:

for group work, structuring groups carefully such that students had specified roles which encouraged groups to work more effectively.

for classes using group work, dividing the labour and response tasks among groups to maximise productivity.

clearly specifying objectives, emphasising the processes related to professional activity or the discipline, underscoring the exercise and how these objectives relate to those of the module as whole.

Enhancement of student learning can be derived from the presentation of clearer goals/intentions, embedding the assessment in context and clarification of the criteria which thus empower the learner.

It would be simplistic to consider that assessment practices can be improved by any mechanical process carried out by an individual. Rather quality improvement can only be achieved through a collaborative process of reflection on the goals, the teaching-learning strategies, the assessment plan, the criteria for assessment, the weighting, and the grades awarded the completed assessment tasks.

It is true that case studies can provide lecturers with ideas about some desirable assessment practices. Likewise relevant literature and courses may provide useful assistance. However, quality improvement is essentially dependent on skills, collaboration, reflective practice and the wish to improve the assessment process.

SIGNIFICANCE OF THE STUDY

Given that a major purpose of universities is to prepare graduates

directly or indirectly to contribute to an improved workforce and/or enrich our society, it would seem incumbent on tertiary institutions to engage in a process of continuous improvement of assessment practices. This study provides a basis for guiding lecturers in the improvement of their practice.

In summary, the author would argue that effective design of assessment tasks is an imperative for the improvement of student learning. The portrayal of case studies can provide a backdrop which can be used by less experienced lecturers in the development of their own practice.

The continuous improvement of assessment practices will, in the longer term, mean that it is more likely that graduates will be able to contribute to making a better society and assure quality in the workplace. In the final analysis it is not the number or amount of assessment tasks required of students that matters but rather whether the assessment tasks are valid in relation to the stated objectives and that these reflect the nature of the discipline and any relevant vocation. It is better to improve upon the few valid assessment techniques used than to include a whole range of techniques which do not reflect the intended learning outcomes.

REFERENCES

- Alverno College 1979). Assessment at Alverno College. Milwaukee: Alverno College.
- Andresen, L., Nightingale, P., Boud, D. & Magin, D(Eds) (1993). Strategies for Assessing Students. Birmingham: Standing Conference on Educational Development.
- Baldwin, C. (1993). A Comedy of Errors. Lancaster: Lancaster Students' Union.
- Bennett, Y. (1993). The validity and reliability of assessments and self-assessments of work-based learning. Assessment & Evaluation in Higher Education, 18(2), 83-94.
- Biggs, J. (1987). Student Approaches to Learning and Studying. Melbourne: Australian Council for Educational Research.
- Boud, D. (1986). Implementation of Student Self-assessment. Green Guide No.5. Kensington: Higher Education Research and Development Society of Australasia.
- Broadmeadows College of TAFE (1990). Recognition of Prior Learning (RPL): Principal Report. Broadmeadows: Broadmeadows College of TAFE
- Brown, S & Knight, P. (1994). Assessing Learners in Higher Education. London: Kogan Page.
- Carmichael Report (1992). Australian Vocational Certificate Training System. Canberra: Australian Government Publishing Service.
- Carr, E.H. (1961). What is History? New York: Alfred A. Knopf.

Crooks, T. (1988). *Assessing Student Performance*. Green Guide No.8. Kensington: Higher Education Research and Development Society of Australasia.

Deveson Report (1992). *Taskforce on Pathways in Education and Training*. Melbourne: Ministry of Employment, Education and

Training.

Finn Report (1991). *Review of Young People's Participation in Post-compulsory Education and Training*. Canberra: Australian Governemtn Publishing Service.

Gibbs, G. (1992). *Improving the Quality of Student Learning*. Bristol: Technical and Educational Services.

Gibbs, G. & Habershaw, S & Habershaw, T.(1986). *53 Interesting Ways to Assess Your Students*. Bristol: Technical and Educational Services.

Gonczi, A., Hager, P.A. & Oliver, L. (1990). *Establishing Competency Based Standards in the Professions*. National Office of Overseas Skills Recognition, Research Paper No.1, Department of Employment, Education and Training. Canberra: Australian Government Publishing Service.

Gronlund, N.I. & Linn, R.C. (1990). *Measurement and Evaluation in Teaching*. New York: Macmillan Publishing Company.

Grey, T.G.F. (1993). Open book examinations. *The New Academic*,3(1), 6-9.

Hedberg, J.G. & Kings, C.B. (1979). Correlates of course design in higher education. *Proceedings of the 1979 Annual Conference of the Australian Association for Research in Education*, Melbourne, 467-477.

Heywood, I., Gonczi, A.& Hager, P. (1992). *A guide to Competency Standards for Professions*. National Office of Overseas Skill Recognition, Research Paper No.7, Department of Employment, Education and Training. Canberra: Australian Government Publishing Service.

Hughes, I.E. & Large, B. (1993). Assessment of students' oral communication skills by staff and peer groups. *The New Academic*, 2(3), 10-12.

Karmel, P. (1990). Higher Education-Tensions and balance. *Journal of Tertiary Education Administration*,12(2), 329-337.

Kings, C.B. (1987a). *Factors Predicting Successful Graduate Diploma Programs*. Doctoral dissertation, Centre for the Study of Higher

Education, The University of Melbourne. Ann Arbor: University
Microfilms International.

Kings, C.B. (1987b). Improving assessment in Higher Education.
Research and Development in Higher Education, 9, 417-422.

Kings, C.B. (1988) Analysis of academic skills: implications for staff
development. Paper given at the Higher Education Research and
Development Conference, 'Educational Developments for Higher
Education', Dynasty Hotel, Singapore.

Kings, C.B. & Humphries, P. (1991). Education for reflective practice.
Paper presented at the Annual Conference of the Australia and New
Zealand Association for Medical Education, St. Hilda's College, The
University of Melbourne.

Kings, C.B. & Braddy, J. (1993). Recognition of prior learning.
Research and Development in Higher Education, 14, pp 138-143.

Kings, C.B. (1993). Effective Assessment for improvement of student
Learning. Research and Development in Higher Education, 14, pp144-150.

Kings, C.B., Graham, J. & Thomas I.T. (1992). Reflective practice in
teaching practical work-Improving quality. Paper given at the Annual
Australia New Zealand Association for Medical Education Conference,
University of Queensland, Brisbane.

Kings, C.B. & Sivamalai, S. (1992). Issues in assessment design for
distance education: A Preliminary study. Paper given at the
International Council for Distance Education 16th World Conference,
Sikhothai Thammathirit Open University, Thailand.

Marton, F. & Saljo, R. (1976). On qualitative differences in learning.
British Journal of Educational Psychology, 46, 4-11, 115-127.

Marton, F. & Saljo, R. (1984). Approaches to learning. In F. Marton,
D. Hounsell & N. Entwistle. The Experience of Learning. Edinburgh:
Scottish Academic Press, 36-55.

Mayer Committee (1992). Employment- related Key Competencies: A
proposal for consultation. Melbourne: The Mayer Committee.

Moss, P. A. (1994). Can there be validity without reliability ?.
Educational Researcher, 23(2), 5-12.

Ramsden (1992). Learning to Teach in Higher Education. London:
Routledge.

Shafer, W.D (1991). Essential assessment skills in professional education of teachers. *Educational Measurement Issues and Practice*, 10(1), 3-6, 12.

Schall, C., Guinn, K., Qualich, R., Kramp, M. Schmitz, J.& Stewart, K. (1984). *Competence and Careers: A study relating competencies acquired in college to career options for the liberal arts graduate*. Milwaukee: Alverno College.

Senate Standing on Employment, Education and Training (1990). *Priorities for Reform in Higher Education (Aulich Report)*. Canberra: Australian Government Publishing Service.

The Straits Times, Life, Wednesday, November 10, 1993, 1-3.

Currently 100% marks for the examination
, would prefer 60% examination and 40% assignment.
Comment: This will allow me to check that students have acquired essential concepts and have shown that they are able to engage in practical application of knowledge exercises.

Currently 30% for continuous assessment,
10% participation, and 20% assignment, but would prefer to abolish the

examination.

Comment: Students have a tendency to want to memorize model essays. We certainly want to avoid this by devising questions that are based on skills. Continuous assessment would provide a greater opportunity for students to really engage in the process of the subject.

A curriculum module that has now ceased
to be offered had 100% continuous assessment.

Comment: Continuous assessment was appropriate for the module since it was the only way to assess the skills and abilities appropriate to curriculum design. It also ensured that students had to work cooperatively.

A first year music module had 40% allocated to continuous assessment and 60% to the examination. Comment: An acceptable balance. Ten percent given to performance study and 30 percent to written assignments.

Other Comments

Would like to give more feedback to students.

Include more peer assessment. This would be an important learning process for students.