

PART 3

THE ASSESSMENT OF LEARNING OUTCOMES

PART 3 CONTENTS

THE ASSESSMENT OF LEARNING OUTCOMES

Abstract	83
SECTION A: Introduction to Assessment and Constructive Alignment	83
Award Level Learning Outcomes	84
Mapping Award and Module Learning Outcomes	84
Extent that Module Outcomes Meet Award Outcomes	85
SECTION B: Assessing Learning Outcomes	85
Assessment Terminology	86
Assessment in an Input Model	86
Assessment in an Outcomes Model	86
Designing 'Backwards'	86
Ensuring Assessment is Valid	87
Checking Assessment	88
What Should be Assesed?	89
Making Assessment Criteria Explicit	89
Using Technology in Assessment	89
SECTION C: Managing the Change in Assessment Practices	90
Assessment Volumes	90
Resources Implications	90
Institutional/Procedural Limitations	90
Threshold and Typical Learning Outcomes	91
Plagiarism	91
SECTION D: Review and Evaluation of Assessment Approaches	92
Programme-Level Evaluation	92
Module-Level Evaluation	92
Concluding Remarks	93
Appendices	94
Bibliography	96

ABSTRACT

Programmes designed for inclusion in the National Framework of Qualifications (NFQ) are expressed in terms of learning outcomes, and credit, which can be mapped to the Framework's award-type descriptors and/or levels. The focus of this third part of the report of the university sector Framework Implementation Network is on the assessment of these learning outcomes. It is intended to provide general information on assessment, but also to act, primarily, as a resource for anyone designing or redesigning assessment approaches in the context of learning outcomes. This report assumes that readers have a good knowledge of learning outcomes and how to write them appropriately. Useful sources of information on learning outcomes in general are provided in the reference section at the end of this report.

SECTION A: INTRODUCTION TO ASSESSMENT AND CONSTRUCTIVE ALIGNMENT

In recent years there has been a change in the way student learning is viewed. Increasingly the focus has moved from teaching to learning, with the emphasis shifting from what is taught, to what has been learned. The learning outcomes paradigm has become the primary method for describing student learning and places an emphasis on a student's ability to demonstrate achievement of particular learning outcomes. In this context, assessment of learning outcomes becomes particularly important.

Assessment is an integral part of the learning process, providing a means of grading achievement, giving feedback on performance and identifying areas for improvement. Traditionally assessment was used primarily for summative purposes, taking place after something such as a topic, a module or an academic year was completed and used to grade student performance. Increasingly assessment is used for formative purposes, as a means of learning and as a mechanism to provide feedback on learning while the learning is taking place rather than after it has finished. As methods for assessing student learning have moved from mainly terminal, written examinations to continuous assessment incorporating a wider range of assessment instruments, there has been a concern with establishing guidelines for reliability, validity, transparency and authenticity. Notions of objectivity, subjectivity and originality are never far away from discussions on assessment and increasingly sustainability can be added to the list. According to Boud, "There is probably more bad practice and ignorance of significant issues in the area of assessment than in any other aspect of higher education. The effects of bad practice are far more potent than they are for any aspect of teaching. Students can, with difficulty, escape from the effects of poor teaching, they cannot (by definition if they want to graduate) escape the effects of poor assessment" (1998).⁴²

Traditionally, assessment at third level largely involved written assignments, end of year examinations, marking and grading. More recently, the increased emphasis on learner-centric approaches, coupled with moves to modularised curricula and the use of the learning outcomes paradigm, requires staff to review assessment approaches in order that teaching, learning methods, learning outcomes and assessment are aligned. The implementation of the Bologna Process, in particular the development of the National Framework of Qualifications (NFQ) with a focus on learning outcomes, has resulted in significant challenges. In many cases fundamental shifts in teaching, learning and assessment, as well as structural changes within third level institutions have become necessary. However, lest it should be thought that all assessment change is driven by such legislative developments, for many years there has been an academic focus on assessment and assessment practice, prompted by the expansion of higher education numbers, increasingly diverse student cohorts, quality assurance and enhancement; and the concept of assessment *as a form of learning* rather than something that simply grades or benchmarks learning.

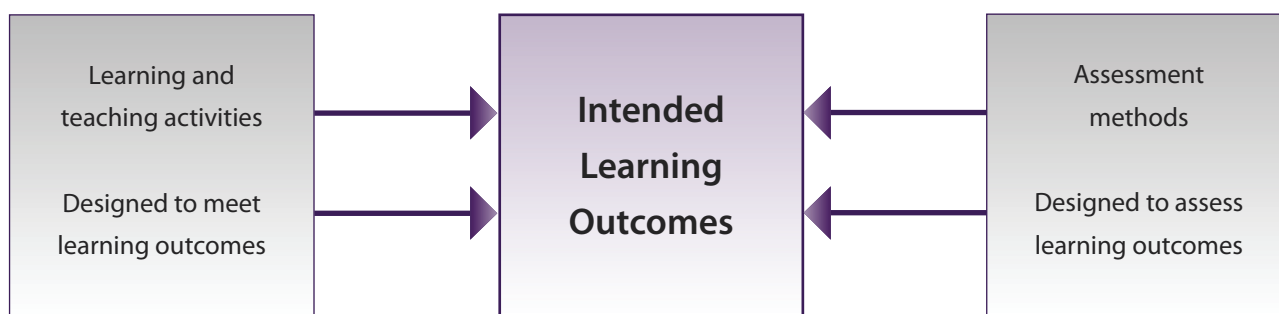
Authors on teaching and learning in higher education believe that assessment defines the curriculum for most students, i.e. regardless of other information provided, such as course outlines or module descriptors, students decide what is important based on what is assessed (see Biggs, 1999; Ramsden, 2003).⁴³ Ramsden

⁴² Boud, D (1998) *Assessment and learning – unlearning bad habits of assessment*. Presentation to the Conference 'Effective Assessment at University', University of Queensland, 4-5 November 1998. [Internet] Accessible from: http://www.tedi.uq.edu.au/conferences/A_conf/papers/Boud.html

⁴³ Ramsden, P. (2003) *Learning to Teach in Higher Education*. New York: Routledge Falmer

claims that “assessment is the most significant prompt for learning but that poor assessment can encourage passive, reproductive forms of learning while simultaneously hiding inadequate understanding to which such forms of learning inevitably lead”. This can have a number of consequences. For example, for lecturers, they may end up ‘teaching to the test’, that is, only teaching what they know they will be examining, or over-assessment by using assessment as a way to get students to learn everything. For students, they may ignore assessment given for formative purposes and to deepen learning, if it does not explicitly contribute exam marks. For both students and lecturers there is a danger that some things get over-emphasised and others get under-emphasised, based on their perceived importance. Sometimes things which may be ‘easy’ to assess, such as a research paper on a particular topic, but only worth 10% of the overall grade, may make this topic seem very important to students.

In an attempt to make assessment part of the learning process, and as a means of addressing some of the issues raised above, Biggs (1999), coined the term ‘Constructive alignment’, describing it as “... the objectives define what we should be teaching, how well we should be teaching it, and how we could know how well students have learned it”.⁴⁴ Constructive alignment increasingly features as part of university curriculum development. Alignment of teaching, learning and assessment, coupled with the introduction of learning outcomes-based curricula, are amongst the most challenging teaching-related issues currently faced by third level teachers and require leadership and support to ensure that they are embedded locally.



AWARD LEVEL LEARNING OUTCOMES

The National Framework of Qualifications (NFQ) is one of Ireland’s main tools for engaging with the Bologna Process. It describes high-level outcomes expected to be achieved by a learner who successfully completes an award at a given level. Each major⁴⁵ award demonstrates outcomes across the three areas of Knowledge, Know-How & Skill and Competence, although the balance of emphasis will differ in accordance with the award. Award outcomes are demonstrated through the achievement of the learning outcomes of the modules, which cumulatively comprise the award. As a result, the relationship between award outcomes and module outcomes must be clear. The NFQ describes high level ‘Award Descriptors’ for all major awards, which are essentially generic learning outcomes that any graduate from any award at a particular level will have achieved. Institutions describe the outcomes for each of their awards using the NFQ descriptors as a guide, but with more specific graduate outcomes for each programme. Module learning outcomes are used to describe the learning associated with individual modules within awards. Work is continuing throughout Europe, including Ireland, to address the issue of developing discipline-specific learning outcomes. Please see Part 2 of this report: Discipline Specific Learning Outcomes – Some Case Studies, Reference Points, Issues and Insights.

MAPPING AWARD AND MODULE LEARNING OUTCOMES

The learning outcomes for an award are achieved through the accumulation of learning outcomes successfully demonstrated at the module level. When moving to a learning outcomes paradigm it is appropriate to either start with module learning outcomes and look at how each module contributes to the overall award outcomes, or to start with the award outcomes and agree how each module will deliver them

⁴⁴ Biggs, J.B. (1999) *Teaching for Quality Learning at University*. Buckingham: Open University Press.

⁴⁵ Awards in the NFQ are classified as Major, Minor, Special Purpose and Supplemental. For the purpose of this document ‘Award’ is used to mean Major Award. Part 1 of this report reviews in more detail the technical aspects of the NFQ, and the awards it recognises.

and then write/rewrite the module outcomes appropriately. Whichever approach is used, it is important to achieve coherence between the two, ensuring that all award outcomes are delivered and all module outcomes contribute to some award outcomes. It is likely that this 'mapping process' will be iterative, revisiting award and module outcomes as necessary.

When designing/redesigning programmes to use learning outcomes and align with the NFQ, it is necessary to ensure that all award outcomes are actually delivered through the modules contributing to that award. Whether you start with the programme or the module outcomes, you might find the grid below a useful tool for checking the mapping of module and programme outcomes. **It is usual that programme outcomes will be delivered by many modules but it is often the case that some may be over-delivered (PO1 below). Likewise such analysis may identify some programme outcomes that are under delivered (PO5 below).**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
MOD1	X		X	X				
MOD2	X	X						
MOD3	X					X	X	X
MOD4	X	X	X					X
MOD5	X						X	X

PO: Programme Outcome Mod: Module Outcome

EXTENT THAT MODULE OUTCOMES MEET AWARD OUTCOMES

It is a common misunderstanding that each module should address all of the sub-strands⁴⁶ of an NFQ award descriptor, in the way that programme outcomes must. This is not the case – in fact, unless a module has a large credit weighting, it is highly unlikely that it would address all, or even a large number, of the programme outcomes. Major Awards are made up of large volumes of credits, usually from 60 to 240, depending on the type of award. As an individual module will, in general, only carry 5 to 20 credits, it would not be expected (or even acceptable) that one module would address all outcomes.

SECTION B: ASSESSING LEARNING OUTCOMES

In a learning outcomes context, assessment effectively means assessing students' attainment of learning outcomes. In some discipline areas this will already be the norm, in that generally the ability to demonstrate knowledge, skills or competence is the main thrust of assessment, but in other discipline areas it may be more common that it is *content* which is mainly assessed. Some discipline areas feel that the learning outcomes paradigm is not suitable or appropriate for their type of student learning. For example, it is sometimes felt that in highly creative disciplines or arts-based areas it is difficult to 'reduce' student learning to specific outcomes.

⁴⁶ Each of the strands of Knowledge, Skills and Competence is further divided into sub-strands, with 8 sub-strands in total.

ASSESSMENT TERMINOLOGY

When discussing assessment it is often the case that we use words interchangeably which might have different meanings to different people. Below is a clarification of some key terms used in the following sections.

Assessment Criteria

This is the basis on which a judgment of the adequacy of the student work is made. Often the assessment criteria is implied in the way a learning outcome is written.

Assessment Instrument

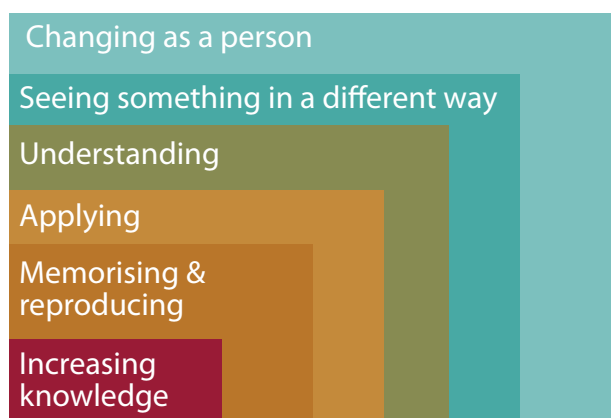
The assessment instrument is the way in which particular learning outcomes are assessed, for example a research paper, a project, a lab exercise etc.

Assessment Task

This is the actual assignment a student must complete in order to demonstrate achievement of learning outcomes

ASSESSMENT IN AN INPUT MODEL

In an 'input' model, content tends to be the driver of most of the teaching, learning and assessment practices. Lecturers often refer to 'imparting or instilling information' which suggests a largely transmission-type model. This is often characterised by assessment which requires recall of information and primarily uses instruments such as exams, multiple-choice questions, essays and research papers. Sometimes this can lead to an assessment of what the lecturer has taught, rather than necessarily what the student has learned, or at the very least no way of distinguishing between the two.



(Marton, Dall'Alba et al., 1993)

ASSESSMENT IN AN OUTCOMES MODEL

In an outcomes model, assessment is focused on what a student can demonstrate in terms of knowledge acquired and understood, skills learned, competences attained etc. Different types of outcomes will usually require different types of assessment instruments. For example, if an outcome is that 'a student will demonstrate the ability to work safely in a laboratory', it may not be sufficient that a student can write about safe laboratory practices in an exam question, it may be necessary to observe them in actual situations.

DESIGNING 'BACKWARDS'

When designing curricula, many believe that we should start with what outcomes are to be attained, then define the appropriate assessment to enable a student to demonstrate this attainment, then design the teaching and learning approaches which will best deliver these. This contrasts quite starkly with traditional practices whereby the content to be covered tends to drive the rest of the curriculum design process. Some, notably Biggs, claim that assessment is what drives the rest of the curriculum development process and should always be the starting point. In a learning outcomes context, assessment must be designed so as to

ensure that learners can actually demonstrate achievement of particular outcomes. In more traditional approaches it was just assumed that the essay, the test, the exam etc. validly assessed learning and indeed, in most cases it probably did. When using learning outcomes, however it is not sufficient to assume, the validity of assessment approaches needs to be demonstrated.

ENSURING ASSESSMENT IS VALID

When deciding on appropriate assessment approaches, it is necessary to decide what it is that will enable both the lecturer, and the student, to recognise when a learning outcome has actually been achieved. For example, will an exam question on a Computer Programming paper which requires a student to hand write code, assess their programming ability in the same way that a requirement to write a programme on a computer would? When assessing learning outcomes it is important that all assessment instruments are checked to ensure that they will actually enable a student to demonstrate the attainment of the associated outcome. Sometimes it is assumed that all existing assessment approaches must be changed when one changes to assessing learning outcomes, but this is not, of course, necessarily the case. The assessment tools presented below provides a list of a large range of assessment instruments. The important thing is that a particular assessment instrument will validly assess a particular learning outcome. It is quite likely that existing assessment instruments are already valid or could be made so with minor changes so it makes sense to start with current instruments before looking automatically for new ones.

TYPE OF ASSESSMENT TOOL

Test/Written Examination

- Essay-type questions
- Multiple Choice items
- True or False
- Short Answer questions
- Closed book examination
- Open book examination
- Case study Critique

Oral Presentation/Practice-based Assessment

- Individual Presentations
- Group Presentations
- Interviews
- Oral Questioning
- Performance
- Debriefing Interviews
- Debriefing Questionnaire
- Poster Presentation
- Practicum
- Exhibition/Display of Work
- Professional Practice Assessment
(Work Placement, Clinical Practice, Teaching Practice etc.)
- Role Play
- Mini-Conferences
- Studio Critique

Project/Assignment/Process-based Assessment

- Essay
- Studio Critique and Review
- Journals/Diaries/Logs
- Intellectual Autobiographies
- Computer Aided Design
- Research Piece
- Case Studies
- Anecdotal Records
- Observations
- Reaction Papers
- Creation of Discipline-Specific Artefacts
- Literature review
- Book review
- Learning Contract
- Problem-solving Assignment
- Portfolios

CHECKING ASSESSMENT

Frequently, when a module is rewritten to use learning outcomes the assessment instruments are left unchanged. In reality many modules are *only* changed to use learning outcomes, without checking whether the assessment criteria and/or the assessment instruments are still valid. Often, if you examine the prior assessment instruments against the new learning outcomes one or more of the following occurs:

- Some learning outcomes are never assessed
- Some learning outcomes are over-assessed
- Some assessment instruments do not assess any learning outcomes.

It is useful to construct a matrix such as that shown below to check what is being assessed in a module. This will identify whether alignment is actually achieved. If alignment is not achieved, often a small change to the assessment instrument, or a re-expression of a learning outcome, can achieve this.

Module CG789	LO1	LO2	LO3	LO4	LO5	LO6
Assignment 1	✓				✓	
Assignment 2	✓		✓	✓		
Assignment 3						
Final Exam	✓		✓	✓	✓	✓

Looking at the example of the above matrix the following questions arise:

- Is learning outcome 1 over-assessed?
- How is learning outcome 2 assessed if at all?
- Do learning outcomes 1, 3, 4 and 5 need to be assessed through assignments and the final exam?
- What learning outcomes is Assignment 3 assessing?
- Is the final exam seen as the 'real' assessment instrument? Why are so many learning outcomes assessed in the exam as well as through other assignments?

The last point above is important. For many reasons - plagiarism being one of the most prominent, but also for issues of volume and efficiency- we often see the final examination as being the most important assessment instrument. However many learning outcomes do not lend themselves to being assessed validly in this way. This also raises questions about the validity of the other assessment instruments. Rather than 'compensating' for issues associated with continuous assessment, surely these assessment instruments need to be made more valid, especially if a written exam is not necessarily a valid instrument for some learning outcomes. This approach runs the risk of 'compensating' one invalid assessment instrument with another!

WHAT SHOULD BE ASSESSED?

It is sometimes the case that we assess things which we have not stated as intended⁴⁷ learning outcomes for a particular module. This is particularly common with 'soft' or 'transferrable' skills such as Presentation Skills, Group Working Skills etc. For example, we often use group-work as a learning mechanism or for efficiency purposes to reduce assessment volume and then assess student's group working ability (participation, attendance, contributions etc). If 'an ability to demonstrate group working' is an intended learning outcome for a module then it is absolutely valid to assess group working in this way and also to combine it with the assessment of another outcome. However, if group working is not a stated learning outcome then it should not be assessed, but it can of course still be used validly as a pedagogic tool.

If such 'soft' skills are intended learning outcomes and will be assessed, it cannot be assumed that they will be learned through informal exposure to them. It may be necessary to provide some formal 'teaching', even in the form of a handout, with respect to such soft skills if you are going to assess them. It is often assumed that simply working in groups will enable acquisition of effective group working skills, but acquisition of poor group working skills is just as likely. It cannot be assumed that simply by doing something, students will automatically learn how to do it effectively.

MAKING ASSESSMENT CRITERIA EXPLICIT

It is the case that often we mark assignments based on internalised, expert knowledge, which we have developed during our years of study and practice. As this is largely 'tacit' knowledge, (Polanyi, 1967)⁴⁸ it can be quite difficult to explain why we have allocated particular marks to particular pieces of work. Often a lecturer 'just knows' an A grade essay over a C grade one, but increasingly it is necessary to explain the award of individual grades. It can be particularly frustrating for students when they cannot fully understand why they received a particular grade or indeed what they could do to improve their grade in the future. Making tacit knowledge explicit can be difficult and the use of rubrics is one way of making it explicit.

A rubric is a scoring guide that identifies the criteria which is used to grade a piece of work, and often incorporates guidelines for evaluating these criteria. Suskie (2004)⁴⁹ identifies the benefits of rubrics as including, helping students to better understand expectations and possibly inspiring better student performance; making grading easier and faster, as well as more accurate, unbiased and consistent; and improving communication with students. There are many different kinds of rubrics, including checklists, rating scales, descriptive rubrics and holistic rating scales. Often different criteria are given different weightings or marks so that a numerical grade can be calculated to reflect performance.

Some examples of rubrics are given in Appendix 1.

USING TECHNOLOGY IN ASSESSMENT

Technology can be a major asset in tackling assessment, especially when assessing large groups. While earlier technologies tended to mainly support a limited set of test-like instruments, a wider range is now supported including portfolios, discussion fora, collaborative projects etc. As well as making summative assessment more efficient in many cases, technology can also play a significant role in formative assessment opportunities. Student feedback can be built into online assessment, so that when a student gets something wrong information regarding common mistakes or misunderstandings can be automatically provided to them. Other technology-enabled solutions also include the use of Student Response Systems in class to provide an instant picture of general understanding or misunderstanding of particular concepts.

⁴⁷ *Intended Learning Outcomes* are those which we expect students to attain and which will be assessed. There is also the concept of *Unintended Learning Outcomes* which are those which may or may not be achieved by some or all students as a consequence of completing a programme/module.

⁴⁸ Polanyi, M. (1967) *The Tacit Dimension*. Garden City, N.Y.: Anchor Books

⁴⁹ For further discussion, please see: Suskie, L. (2004) *Assessing Student Learning: A Common Sense Guide*. Bolton, MA: Anchor Publishing.

SECTION C: MANAGING THE CHANGE IN ASSESSMENT PRACTICES

As mentioned earlier, it is often not necessary to abandon current practice and to institute fully revised methods of assessment which are more appropriate to a learning outcomes approach. What is required is that the assessment instrument is aligned to the intended outcomes. Managing this change can involve a rebalancing of the weighting within the questions on an examination paper or between the examination and the continuous assessment component, if there is one. It may also be necessary to vary the range of types of questions within an examination paper to capture the broader range of outcomes. There is a related difficulty with consistency of such methods of assessment across different teaching staff and over time. All of these changes are desirable in any case and can be managed with some careful consideration of the issues involved. Some of these are discussed below.

ASSESSMENT VOLUMES

One possible result of a change to an outcomes-based assessment strategy is that the assessment load increases both for the student and for the staff. If a different type of assessment instrument is adopted in addition to the existing approach, then there must be a balancing between the two to ensure an appropriate load. As mentioned earlier, one should be careful about simply adding assessment but keeping the old instruments, especially terminal exams. Valid assessment may require substitution of one assessment instrument for another; so, be careful. Also, more than one learning outcome can be assessed with one assessment instrument so there are opportunities to reduce the volume of assessment.

RESOURCE IMPLICATIONS

One reason (although not the only one) that terminal examinations have been popular in the past is that they are cost-effective. Therefore there is a challenge for institutions adopting the learning outcomes approach to find ways of assessing the outcomes in a manner that can be delivered within available resources; both human and financial. Oral presentations/examinations and other, more individualised methods can be more expensive to administer and to monitor to ensure consistency across the various staff members involved and transparency for the student. There are inherent contradictions in the higher education system with under-funding in general and different funding models for different disciplines, alongside a requirement to implement the various elements of the Bologna Process and to design programmes/awards in terms of learning outcomes which can be included in the NFAQ. There may be an inherent contradiction if a move to using learning outcomes demands more resources to be implemented validly. While some alignment can be achieved by careful design of assessment instruments, funding implications may arise.

INSTITUTIONAL/PROCEDURAL LIMITATIONS

Existing institutional structures and custom and practice can serve to constrain the adoption of new assessment practices. There can also be considerable comfort in using traditional approaches despite their limitations and the clear evidence in many cases that they do not promote deeper, more engaged, critical learning. Such traditional approaches are well recognised, understood and non-threatening. Indeed, much of the comfort arises from the fact that they are the approaches we ourselves experienced as students. Alternative approaches, which may probe more deeply and indeed require more work from both students and staff, may initially pose significant challenges and hence be resisted. It must also be remembered that the vast majority of third level teachers have had no formal training in pedagogy or curriculum design and may find it conceptually difficult to even know how to begin to design new approaches or validate existing ones.

In many instances, individual lecturers or module coordinators have, or believe they have, insufficient 'freedom of movement' to alter assessment practices and grading schemes, frequently not knowing what is formalised in regulations or what is actually local custom and practice. This is particularly the case in situations where, for example, a faculty has a requirement to allocate student assessment, as, say, 40% continuous assessment and 60% terminal examination, applied across the board for all modules, regardless of module learning outcomes.

Further, professional bodies that confer accreditation on certain programmes may also have fixed requirements. Whilst such requirements can be challenged (and perhaps should be), it requires additional, perhaps long-term, effort on the part of individual members of staff or programme teams. While this has been presented as a challenge, it may also provide an opportunity to question some of the limitations imposed by institutions or professional bodies. The need to demonstrate constructive alignment and appropriate assessment of learning outcomes can provide a powerful rationale to justify change.

THRESHOLD AND TYPICAL LEARNING OUTCOMES

The issue of what constitutes achievement of a learning outcome is one that is still actively debated. Very few learning outcomes are binary – i.e. achieved or not achieved. We know that students will demonstrate different degrees of competence with respect to any learning outcome, from those who just about gain minimal competence, to those who demonstrate mastery. This is no different from our current system where students who have achieved anything from 40% to 100% are deemed to have demonstrated competence, albeit at different levels.

In a learning outcomes context this becomes most important when writing the outcomes in the first place. It is important that the module designer understands what the appropriate level of achievement is for particular outcomes. Two main approaches tend to be used to express expected levels of achievement – Threshold and Typical achievement.

Threshold

If learning outcomes are written to reflect a threshold level of achievement then this should describe the minimum competence necessary to demonstrate ability with respect to that outcome. Anything below this level would be deemed to have failed to demonstrate a requisite level of achievement.

Typical

Frequently (and this is the case of the Award Descriptors in the NMQ) learning outcomes are written to reflect a 'typical' degree of achievement. In this situation there is room for students to demonstrate a lower achievement and still have demonstrated competence.

PLAGIARISM

In addition to the efficiency associated with terminal exams mentioned earlier, one of the reasons often cited for their use is the risk of plagiarism associated with other forms of assessment. There are a number of safeguards against plagiarism in continuous assessment that include encouraging students to take responsibility for their own learning by referencing sources properly and having a greater sense of the worth of their own opinion in relation to a topic. There are software solutions such as "Turnitin" which act both as an educational and a preventative tool. In addition, lecturers need to incorporate safeguards against plagiarism such as redefining the task from cohort to cohort, including some element of oral reporting, personalising elements of an assessment to individual students etc. If terminal exams are still the preferred option, variations such as the use of case studies, open book exams etc. can prove a viable alternative to the 'answer 3 out of 5 questions' format.

SECTION D: REVIEW AND EVALUATION OF ASSESSMENT APPROACHES

The principle of review and evaluation is a key component of any effective programme and module design process. It is also an invaluable means of assuring the quality of teaching and learning. The review and evaluation of assessment is essential in order to ensure the continued alignment of assessment tasks with specified learning outcomes and associated teaching strategies. The evaluation of assessment can occur at both the programme level and at the module level.

PROGRAMME-LEVEL EVALUATION

At the programme level, the evaluation focuses on the overall assessment pattern in a given programme. In particular, it might focus on two key issues:

- (i) the general congruency of the range of assessment tasks undertaken at the module level with the achievement of specified programme level outcomes. Whilst the assessment of learning outcomes occurs at the module level, it is important to gauge the extent to which specified programme level learning outcomes, particularly transferable skills, are being successfully assessed;
- (ii) the overall load of assessment tasks for students undertaking a given programme. In this context focus might be on:
 - evaluating the overall assessment workload of an individual student as he/she progresses through a given programme;
 - ensuring the efficiency of the assessment of module level outcomes in a given programme and, where possible, minimising duplication or over-assessment of particular learning outcomes in different modules and;
 - considering the adequacy of the range of assessment tasks employed throughout a programme and the suitability of those tasks to the effective assessment of specified learning outcomes.

Such evaluations might form part of periodic quality reviews conducted by the programme board or similar body entrusted with the responsibility of programme management.

MODULE-LEVEL EVALUATION

At the module level, the evaluation focuses specifically on the assessment tasks being employed to assess specified module level learning outcomes in a given module.

A number of helpful questions in conducting such an evaluation include:

- (i) Is the assessment task(s) employed valid?
 - does the assessment task employed actually assess the knowledge, know-how & skill or competence it is designed to assess?
 - does the assessment task employed actually assess at the level specified for the given module?
- (ii) Is the assessment task(s) employed reliable?
 - to what extent is the assessment task employed accurate in its assessment of the knowledge, know-how & skill or competence it is designed to assess?
 - can the achievement of assessment outcomes at the specified level be repeated?
- (iii) Are the grading and feedback mechanisms being utilised effectively?
 - are there clear grading guidelines or other mechanisms that clearly communicate the extent to which a student has been successful in achieving the specified learning outcome?
 - are there efficient feedback mechanisms in place to ensure that students can learn from the outcomes of the assessment tasks undertaken?

The evaluation of assessment tasks can benefit greatly from integrating both learner and lecturer feedback into the process.

A valuable source of data here is students' perceptions of the assessment tasks undertaken in relation to learning outcomes. In particular, it can be helpful to gain some insight in relation to the following areas:

- do students themselves perceive the relevance of the assessment task assigned to the specified learning outcome?;
- do students perceive that they have already been assessed in relation to the specified learning outcome either in another assessment task associated with a given module or in the assessment tasks of another module?;
- do students perceive the work and time needed to meet the requirements of an assessment task are reasonable?, and;
- do students perceive that feedback received on assessment tasks is helpful in terms of their learning?

At the module level, one can employ both quantitative (e.g. module evaluation questionnaires, statistical analysis of student results in relation to specific assessment tasks or component items of assessment) or qualitative (e.g. focus group, open questions) methods to gather relevant data from both learners and teachers. External examiners are another valuable source of feedback on assessment.

CONCLUDING REMARKS

This part of the report is designed to assist anyone who is embarking on design or redesign of assessment approaches in the context of adopting learning outcomes to describe student achievement at the programme and module level, with reference to the award-type descriptors and levels of the National Framework of Qualifications (NFQ). As a practical guide, it does not provide theoretical underpinnings for the approaches or suggestions it proffers, nor does it provide a theoretical or philosophical justification for, or discussion of, learning outcomes as a paradigm. The report is based on the experience of the sub-group in designing and redesigning curricula, particularly addressing the issues which arise in relation to assessment when one moves from a traditional, content-focused approach to a learning outcomes approach. It attempts to point out the dilemmas and problems that can arise and suggests ways of avoiding or resolving them.

Readers should always be aware of their local contexts and ensure that they take local regulations and custom and practice into account when changing practice. From the perspective of ensuring quality, changes should go through the normal academic procedures required to approve changes to curricula (these could be quite formal at the institutional level, or informal at the local programme level). Requirements of professional bodies should also be taken into account.

We hope that this report will be of value to you in addressing assessment in your own context.

APPENDIX 1: SAMPLE RUBRICS

A CHECKLIST RUBRIC FOR A WEB SITE (SUSKIE, 2004)

- The purpose of the site is obvious.
- The site's structure is clear and intuitive.
- Titles are meaningful.
- Each page loads quickly.
- The text is easy to read.
- Graphics and multimedia help convey the site's main points.
- The design is clean, uncluttered and engaging.
- Spelling, punctuation and grammar are correct.
- Contact information for the author or webmaster is given.
- The date each page was last update is given.

A RUBRIC FOR A BUSINESS ASSIGNMENT (SUSKIE, 2004)

Learning Outcome	Understanding	Satisfactory	Inadequate	Insufficient Information to Evaluate
1. Write articulate, persuasive and grammatically correct business materials.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Use critical, flexible and creative thinking to generate sound conclusions, ideas and solutions to problems.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Use software and networking services to obtain, manage and share information.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Apply understanding of domestic and international diversity concepts and issues to business situations.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Recognise ethical challenges and reach ethical business decisions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

A RUBRIC FOR A TAKE-HOME ESSAY IN LITERATURE

This assignment asked students to take a position on a debatable issue regarding interpretation of literature they had studied. The lecturer has identified 3 major criteria – Position, Support and Acknowledgement of Alternative Points of View and has weighted them different levels of attainment of each criterion. Below is the detailed rubric for the Position criterion.

Criterion: Position	Weighting
Description	Weighting
Student takes a defensible position on the issue posed and states the position clearly. Position does not merely state the obvious or parrot one of the readings, but shows a creative mind at work.	
Student takes a defensible position on the issue posed and states the position clearly. Position may be somewhat obvious or closely parallel to one of the readings.	
Student takes a defensible position on the issue posed and states the position clearly but the position may state the obvious or simply paraphrase one of the readings.	
Student takes a defensible position on the issue posed, but the statement is ambiguous, carelessly stated or must be inferred.	
Student does not clearly state a defensible position, or position is not defensible or is irrelevant to the question posed.	

By Barbara E Walvoord, Department of English, University of Notre Dame.

BIBLIOGRAPHY

- Biggs, J.B. (1999) *Teaching for Quality Learning at University*. Buckingham: Open University Press.
- Boud, D (1998) *Assessment and learning – unlearning bad habits of assessment*. Presentation to the Conference 'Effective Assessment at University', University of Queensland, 4-5 November 1998. [Internet] Accessible from: http://www.tedi.uq.edu.au/conferences/A_conf/papers/Boud.html
- Marton, F., Dall 'Alba, G. & Beaty, E. (1993) 'Conceptions of Learning.' *International Journal of Educational Research* 19(3): 277-300.
- Polanyi, M. (1967) *The Tacit Dimension*. Garden City. N.Y.: Anchor Books.
- Ramsden, P. (2003) *Learning to Teach in Higher Education*. New York: RoutledgeFalmer.
- Suskie, L. (2004) *Assessing Student Learning: A Common Sense Guide*. Bolton, MA: Anchor Publishing.
- Walvoord, B. (2004) *Assessment Clear and Simple: A Practical Guide for Institutions, Departments and General Education*. San Francisco. C.A.: Jossey Bass.

Useful resources on Learning Outcomes

Visit the **Useful Links** section of the university sector Framework Implementation Network site www.nfqnetwork.ie for pointers to some additional useful resources.