Resources to Assist Discipline Communities to Define Threshold Learning Outcomes (TLOs)

An outcome of the ALTC's Learning and Teaching Academic Standards (LTAS) Project

September 2011

1 Overview

This document has been developed from the experiences of the disciplines who participated in the ALTC's Learning and Teaching Academic Standards (LTAS) project. Its aim is to provide a suite of resources to assist other discipline communities to define/set threshold learning outcomes (TLOs) in much the same way as the demonstration disciplines did in the LTAS project.

For more information on the LTAS project, including the participating disciplines, the project's outcomes, lessons learnt, and recommendations, please refer to the project's Final Report (currently available at www.altc.edu.au/standards).

2 Disciplines Setting Standards for Academic Quality Assurance

The Australian Government is developing a new Higher Education Quality and Regulatory Framework, which includes the establishment of the Tertiary Education Quality and Standards Agency (TEQSA). TEQSA will regulate the sector against agreed standards for higher education. In developing the standards, the Australian Government is committed to the active involvement of the academic community.

The Australian Government commissioned the ALTC to scope aspects of the Learning and Teaching Academic Standards component of the framework. The approach was designed to ensure that discipline communities define and take responsibility for implementing academic standards within the academic traditions of collegiality, peer review, pre-eminence of disciplines and academic autonomy.

2.1 Aim

The initial aim of this 'disciplines setting standards' approach is to define threshold (or core) learning outcomes for disciplines or programs at one or more appropriate levels (eg bachelors or masters) of higher education qualification as defined in the Qualification Standards – the Australian Qualifications Framework (AQF). Demonstrated achievement of threshold learning outcomes as defined in the Learning and Teaching Academic Standards is expected to be one aspect (among others) of TEQSA assurance of academic standards. The ways in which TEQSA will monitor standards will be negotiated separately.

Refer to Section 3 for a diagrammatic overview of the logical components of the standard setting and QA processes.

2.2 Purpose

The purpose of the 'disciplines setting standards' approach is to:

- Engage discipline communities and higher education providers in the standards setting agenda.
- Support development of threshold learning outcomes for programs/majors.
- Support curriculum and assessment renewal through learning outcome implementation.
- Lay foundations for demonstrating achievement of learning outcomes by higher education institutions.
- Provide information resources to inform both the new regulatory framework and institutional development of standards related processes.

For more detailed information on rationale, principles, FAQs, overseas experience refer to Sections 4, 5, 6 and 7.

2.3 Checklist before you start

The following checklist is to assist those disciplines who wish to commence defining their standards in a manner similar to those in the LTAS project.

1. Have you read Section 7 *Words of Advice*? This advice was provided by a workshop of over 100 representatives from peak academic, professional, and employer groups and outlines the issues to be aware of when embarking on this process.
2. Do you have a project sponsor who will be the lead agency for the project? This may be a Council of Deans or an accrediting body or similar. A single university or higher education provider is not advisable.
3. Has the project sponsor marshalled a written commitment to support the project, from key stakeholders in the discipline including representatives of the academy, the profession and employers?
4. Is a project leader available who is able to be seconded part time and can demonstrate sufficient support from disciplinary stakeholders to successfully lead the project?
5. Can you identify a Discipline Reference Group with the recommended membership? See sections 9 and 10.
6. Can you formulate a project outline with the following details?

    - the nature and scope of the discipline. See Section 10
    - a plan for developing threshold learning outcomes with timelines and deliverables.
    - a review of existing benchmarks or learning outcomes to be used as a starting point, eg relevant professional standards, Tuning documents or UK Higher Education Academy benchmarks.
    - a proposed advisory structure for the project. See Sections 8 and 9.
    - •names and contact details of discipline experts who are prepared to assist the project leader in defining TLOs and in broad based consultation.
    - •a consultation plan including processes for achieving broadly based support and/or endorsement.
    - •an indicative budget outlining the contribution from the discipline stakeholders in terms of time given and travel supported where necessary.

2.4 Suggested Structure of Final Discipline Academic Standards Statements

Description of the discipline and the level targeted for TLO development
- Scope – What is in/out (<u>WHAT</u>)
  eg. Accounting Bachelor and Coursework masters; Geography Bachelors; Health Medicine and Vet Science Entry degrees; Law Bachelor; CAPA Bach and Coursework Masters
- Rationale – for discipline choice, eg number of graduates, importance of discipline (<u>WHY</u>)
- Processes used for Consultation and Development of the TLOs (<u>HOW</u>)
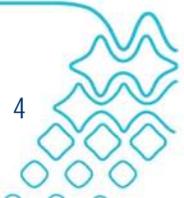
Discipline Standards Statement

Nature and extent of the discipline (see examples in Tuning booklets
http://tuning.unideusto.org/tuningeu/)

Threshold Learning Outcomes for the discipline (see examples in various disciplines on
www.altc.edu.au/standards/<disciplines>)

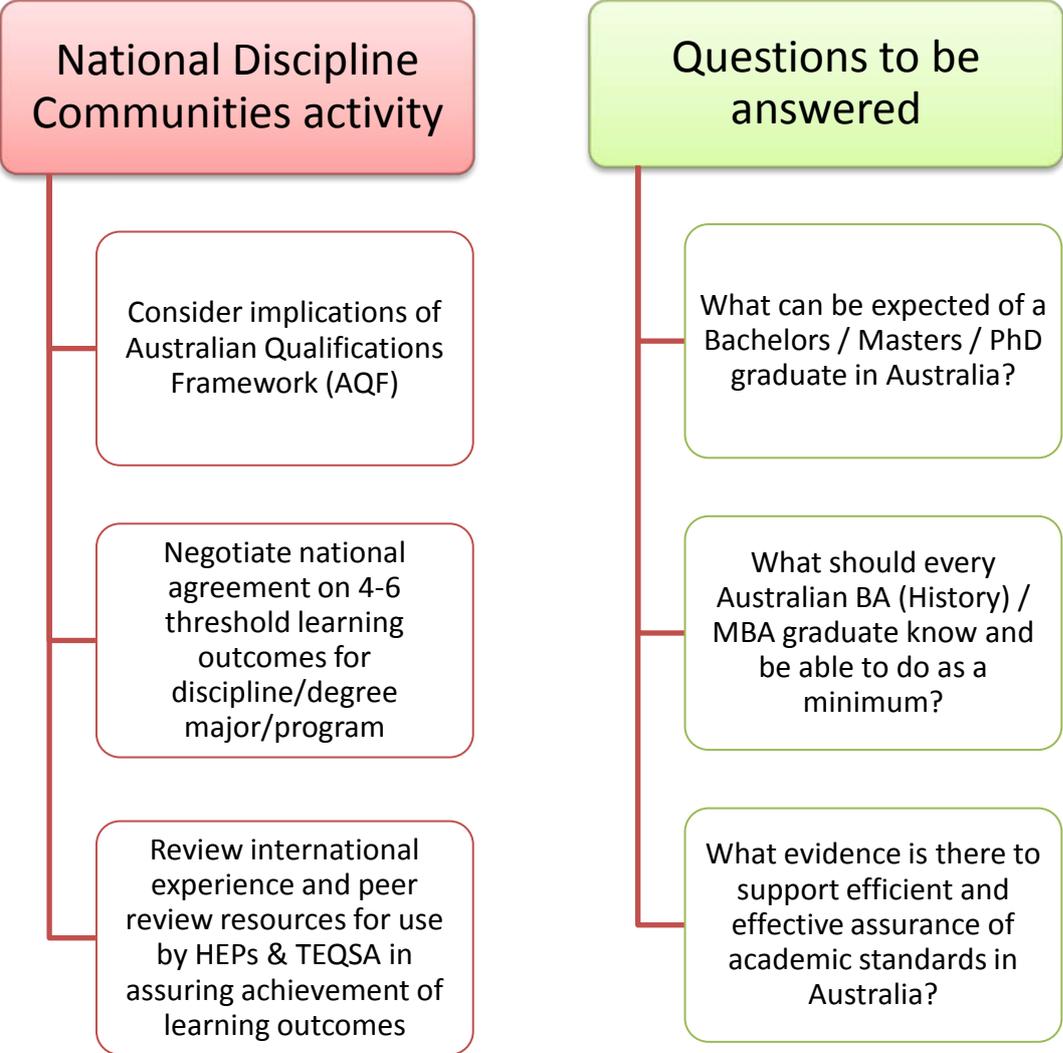|	Bachelor or "Entry"	Master (if applicable)
Domain 1		
Domain 2		
Domain 3		
Domain 4		
Domain 5		

Appendices
- A.1 Terms of Reference and Membership
- A.2 Notes on the TLO
  - TLOs with commentary, provenance, and examples of evidence that would demonstrate learning outcomes had been achieved (Comparison with International, AQF and professional accreditation)
- A.3 Other useful links (eg. Resources, URLs)
- A.4 Glossary
- A.5 Abbreviations
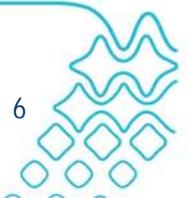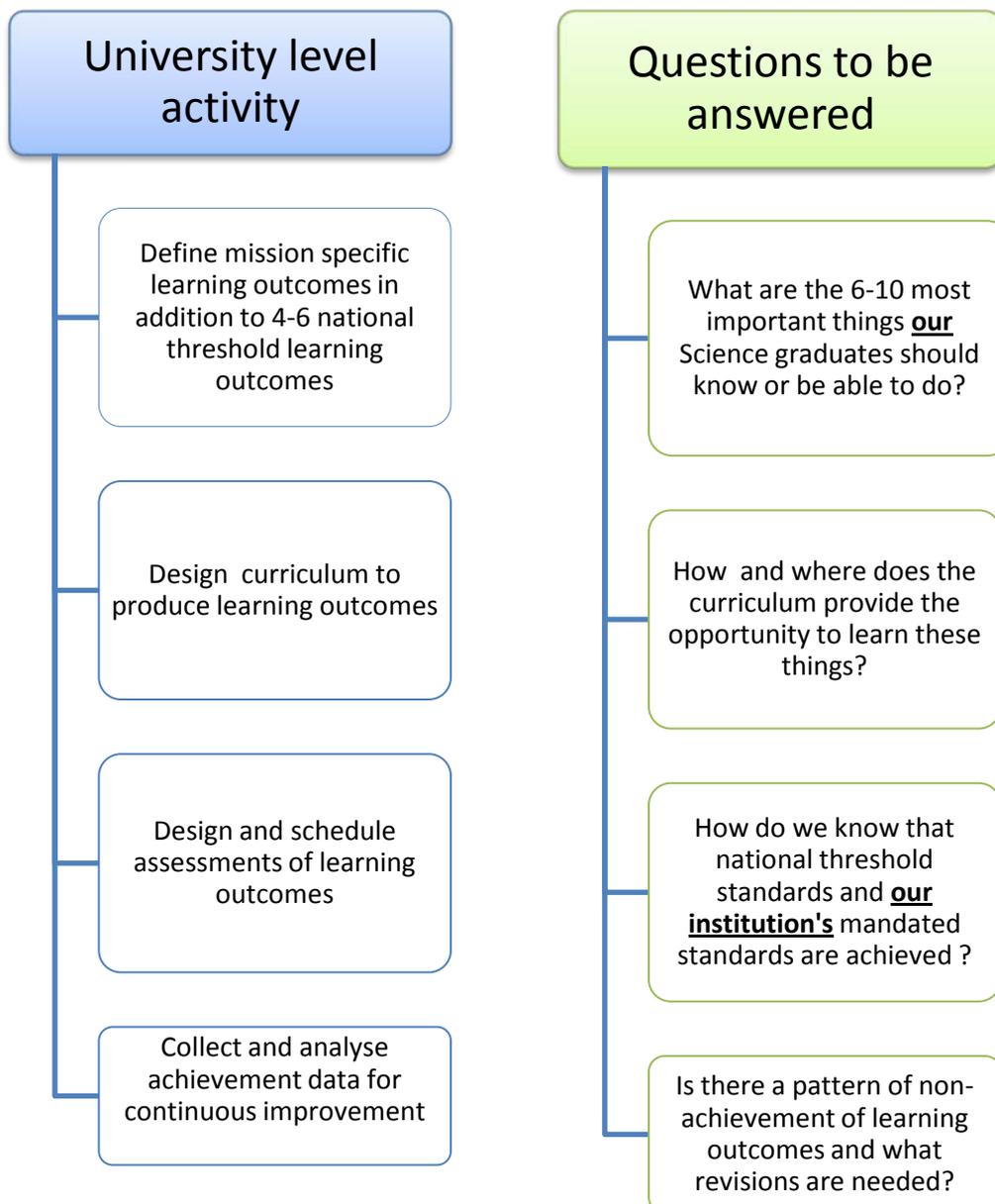- A.6 Presentations, consultations undertaken in developing TLOs.

3 Diagrammatic Outline of Standard Setting and Assurance Issues

1. National Discipline Communities activity

National Discipline Communities activity	Questions to be answered
Consider implications of Australian Qualifications Framework (AQF)	What can be expected of a Bachelors / Masters / PhD graduate in Australia?
Negotiate national agreement on 4-6 threshold learning outcomes for discipline/degree major/program	What should every Australian BA (History) / MBA graduate know and be able to do as a minimum?
Review international experience and peer review resources for use by HEPs & TEQSA in assuring achievement of learning outcomes	What evidence is there to support efficient and effective assurance of academic standards in Australia?

2. Subsequent University level activity

University level activity	Questions to be answered
Define mission specific learning outcomes in addition to 4-6 national threshold learning outcomes	What are the 6-10 most important things **our** Science graduates should know or be able to do?
Design curriculum to produce learning outcomes	How and where does the curriculum provide the opportunity to learn these things?
Design and schedule assessments of learning outcomes	How do we know that national threshold standards and **our institution's** mandated standards are achieved ?
Collect and analyse achievement data for continuous improvement	Is there a pattern of non-achievement of learning outcomes and what revisions are needed?

3. National level activity for assurance of Academic Standards

National level activity

- Develop strategy for assuring academic standards in consultation with HEPs and discipline communities

- Develop guidelines for institutions in consultation with higher education providers

- Develop policy for reviewing the institutional context for assuring academic standards

- Accredit and maintain a register of Australian and international discipline experts who can independently judge evidence of achievement

Questions to be asked

- What sampling strategy will be used to check achievement of learning outcomes within an institution or discipline?

- What evidence will be sought to verify the institutions' claims with achievement of learning outcomes?

- **For example**:
  - Are curriculum and assessment mapped against learning outcomes?
  - Are systems in place to ensure the consistency, validity and reliability of assessment of learning outcomes?
  - Is achievement of learning outcomes reviewed and reported annually?
  - Are systems in place for regular feedback from students, graduates, employers and professional bodies?
  - Does regular program review use this evidence?

4 Overview of Approaches to Academic Standards

Australian context

- In 2009 the Australian Government announced a new Tertiary Education Quality and Standards Agency (TEQSA).

- TEQSA will build on foundations established by Australian Universities Quality Agency (AUQA) and operate with an extended brief: accrediting providers; evaluating the performance of institutions and programs; encouraging best practice; and providing greater national consistency.

- TEQSA will review the performance of institutions as well as programs of study against a range of standards criteria, including those set out in a strengthened Australian Qualifications Framework (AQF) and those understood to represent nationally specified threshold learning outcomes. TEQSA will review institutions as well as particular areas of risk (eg providers operating in a particular region or offering a particular program of study) and will have available a range of sanctions.

- Learning outcomes will be defined by discipline communities who "will 'own' and take responsibility for implementing teaching and learning standards (working with professional bodies and other stakeholders where appropriate) within the academic traditions of collegiality, peer review, pre-eminence of disciplines and, importantly, academic autonomy" (DEEWR, 2009, p. 32).

- Reflecting their diverse missions and institutional perspectives Universities may pursue learning outcomes in addition to nationally agreed threshold outcomes for a particular program or discipline.

What are academic standards?

Academic standards can be defined in terms of inputs (eg facilities, resources), processes (eg student experiences) and outputs (student achievement, learning outcomes). All are valid definitions. Modern international practice, however, is increasingly emphasising learning outcome standards. These can be expressed at various levels: the level of the award (eg what learning outcomes does a diploma level signify?) and the level of the subject or discipline (eg what learning outcomes does graduation from a specified discipline at a specified award level signify?) Both of these levels have been addressed internationally in defining standards.

Award level descriptors

1. Australian Qualifications Framework (AQF) descriptors www.aqf.edu.au/

    - AQF recently reviewed.

    - Qualification levels, criteria, and descriptors are defined by learning outcomes and expressed in terms of knowledge, skills and application of knowledge and skills.

    - 10-level structure (from Certificate 1 to doctorate) and a notional study duration for each qualification type rather than a specific volume of learning used in the European system.

2. Bologna and European Qualifications Framework (EQF)

    - Bologna process aims to create a European Higher Education Area (EHEA) with more comparable and compatible qualifications and standards across Europe to promote workers' and learners' mobility. European qualifications framework adopted by the European Parliament and Council on 23 April 2008. Countries are encouraged to relate their qualifications systems or frameworks to the EQF by 2010 and to ensure that all new qualifications issued from 2012 carry a reference to the appropriate EQF level.

    - Different countries' national qualifications systems are related to a common European reference framework. Individuals and employers will be able to use EQF to understand and compare qualification levels within and across different countries and different education and training systems.

    - The EQF applies to academic, professional and vocational education and training and comprises eight reference levels, the upper three of which are called cycles and correspond to Bachelors, Masters, Doctoral degrees. The reference levels include the possibility of intermediate qualifications within national contexts. Generic descriptors for each cycle are based on learning outcomes and competences.

    - EQF's eight reference levels range from basic (Level 1) to advanced (Level 8) and describe what a learner knows, understands and is able to do – 'learning outcomes'.

    - EQF describes: the 'outer limits' within which national frameworks should be situated; allows for diversity within those limits; ensures compatibility between national frameworks; and presents a "common face" for higher education in Europe, seen to be important in a global context.

Subject or discipline area

1. European Tuning Process http://tuning.unideusto.org/tuningeu/

    - 'Owners' of the process are disciplinary communities.

    - Generating external reference points for a range of subject areas in first and second cycle degree programs (see EQF).

2. Reference points described in terms of learning outcomes and "competences" (defined as a dynamic combination of knowledge, understanding, skills and abilities). Learning outcomes express levels of competence and are statements of what a learner is expected to know, understand and be able to demonstrate after completion of learning.

   - Reference points are broadly equivalent to threshold standards in the UK (see below).

   - Tuning process also underway in USA and Latin America.

3. UK Quality Assurance Agency for Higher Education (QAA) *www.qaa.ac.uk/*

   - QAA subject benchmark statements set out expectations about standards of degrees in a range (57) of subject areas. They describe what gives a discipline its coherence and identity, and define threshold and typical expectations of a graduate in terms of the abilities and skills needed to develop understanding or competence in the subject.

   - No national requirement for measurement against the standards.

   - Assurance of standards on learning outcomes is achieved through an external examiner system.

   - Some benchmark statements combine or make reference to professional standards required by external professional or regulatory bodies in the discipline.

   - Subject benchmark statements do not represent a national curriculum in a subject area. Instead, they are argued to allow for flexibility and innovation in program design, within an overall conceptual framework established by an academic subject community. Intended to assist those involved in program design, delivery and review. They may also be of interest to prospective students and employers seeking information about the nature and standards of awards in a subject area.

4. Australian Learning & Teaching Academic Standards (LTAS) project *www.altc.edu.au/standards*

   - Established to facilitate and coordinate discipline communities' definition of academic standards.

   - The standards defined were threshold standards, expressed as the core learning outcomes that a student of any given discipline must have achieved by the time of graduation.

   - Regular review of academic standards will be required to maintain currency with advances in knowledge and practice.

   - Minimum academic standards in Australia must be comparable with appropriate international standards.

   - Processes for institutional or disciplinary assessment of performance against defined standards must be efficient, transparent, sustainable and include external peer review.

   - Processes for assuring academic standards must not give rise to perverse consequences (eg, standardisation of curricula or learning experiences).

   - Diversity and academic autonomy across the sector must be protected:

a) Individual institutions may set their own learning outcome standards that exceed both the number and level of the defined threshold academic standards.

b) Individual institutions will determine the curriculum, teaching methods, resources and assessment methods leading to the achievement of the core learning outcomes of graduates in their institution.

Assessing achievement of standards

1. Australian Universities Quality Agency (AUQA) *www.auqa.edu.au/*

- AUQA audits have addressed standards in universities through questions such as: "How are standards determined and updated? What input is there from internal and external stakeholders? How are outcomes monitored? How are standards compared nationally? How are they compared internationally? What explicit benchmarking has there been to compare standards? How frequently does this occur? What is the result of the national and/or international comparisons of outcomes or content? How is this information used to improve and update standards? How frequently does this occur?" (Woodhouse, 2009, p.1).

- Few universities could answer these questions well. (Woodhouse, 2009, p. 2) Common responses related to examiners' meetings to assure internal consistency, professional accreditation as standards proxy, and sample cross-marking with other institutions (only a handful claimed this).

2. OECD Feasibility Study for the Assessment of Higher Education Learning Outcomes (AHELO) *www.oecd.org/edu/ahelo*

- Initiative to assess learning outcomes on an international scale by creating measures that would be valid for all cultures and languages.

- Involves over ten different countries (and 30,000 students) collaborating in a 2010 feasibility study to develop and test student learning outcomes in two discipline areas (Economics and Engineering). Other countries can be involved.

- Several existing standardised tests developed by major educational testing organisations for either generic skills or particular disciplinary concepts, are being adapted for the pilot.

- DEEWR is monitoring progress closely.

- Concerns exist about the impact of standardised multiple-choice tests (eg standardisation of the curriculum; 'teaching to the test'; focus on lower-order learning outcomes; stifling of innovation; and inappropriate use of results for ranking purposes).

3. US National Institute for Learning Outcomes Assessment (NILOA) www.learningoutcomeassessment.org/

- Established in 2008 to "assist institutions and others in discovering and adopting promising practices in the assessment of college student learning outcomes" as one response to the 2006 Spellings Commission which had raised concerns about higher education standards.

- Particularly interested in the use of assessment data to improve student learning and approaches to public reporting of assessment data.

- NILOA supports documenting what students learn, know and can do for use by institutions, policy-makers, employers and community. An example of such practice includes the 300+ higher education members of the Voluntary System of Accountability www.voluntarysystem.org.

4. Outcomes assessment by International Accrediting Agencies – the AACSB example *www.aacsb.edu/*

- According to AACSB an "outcomes assessment process should include: 1. Definition of student learning goals and objectives; 2. Alignment of curricula with the adopted goals; 3. Identification of instruments and measures to assess learning; 4. Collection, analysing, and dissemination of assessment information; 5. Using assessment information for continuous improvement including documentation that the assessment process is being carried out in a systematic, ongoing basis."

- The AACSB assessment process relies on peers determining standards in relation to distinctive programs and their learning outcomes (in step 3). Peers are also involved in reviewing the process for marking against the standards, analysing the dissemination of results relating to the proportion not meeting the standard on any program learning goal (step 4), and determining actions to improve the program (step 5) or even revising the program goals (step 1) and where they are developed (step 2). Continuous improvement actions include changing the assessment, the measure, the curriculum, or the pedagogy.

- External benchmarking of sample assessments and assurance process is required every five years but can be done more frequently. For more regular external benchmarking some institutions have chosen to use standardised tests that are available from major educational testing organisations. External feedback in the development of program learning goals is common.

- Each program learning goal must go through the entire 5 step 'assurance of learning' process twice over every five year period.

References

AACSB (2007). AACSB Assurance of Learning Standards: An Interpretation. An AACSB White Paper issued by: AACSB International Accreditation Coordinating Committee & AACSB International Accreditation Quality Committee 20 November 2007 Available: www.aacsb.edu/accreditation/papers/AOLPaper-final-11-20-07.pdf

DEEWR (2009). Transforming Australia's Higher Education System, p.32

Woodhouse, D. (2009). Quality and Standards, May, AUQA

5 Principles underlying use of academic standards for quality assurance

The standards to be defined are **threshold** standards, expressed as the **minimum learning outcomes** in terms of discipline specific knowledge, discipline specific skills including generic skills as applied in the discipline, and discipline specific capabilities that a graduate of any given discipline must have achieved.

To ensure that the process of setting academic standards is accepted and supported by the academic community some principles were developed in the LTAS project to safeguard the process. These principles were as follows:

1. The process must be transparent, evidence based, outcomes based, responsive and feasible.

2. Academic standards will be expressed as assessable learning outcomes. Descriptors of input and process (eg student/staff ratios, student entry scores, class sizes, teaching methods) may support but are **not** acceptable substitutes for evidence of achievement of core learning outcomes.

3. Threshold academic standards, defined as minimum learning outcomes, will be defined by each discipline community for each level of qualification (ie bachelors, masters, doctorate).

4. There must be a regular cycle of review of academic standards to maintain currency with advances in knowledge and practice.

5. Minimum academic standards must be comparable with international standards.

6. Processes for using standards for institutional or disciplinary performance improvement must be efficient, transparent and based on peer review.

7. Processes for auditing academic standards must be developed so as not to give rise to perverse consequences, eg standardisation of curricula or standardised tests.

8. Diversity and academic autonomy across the sector must be protected:

    - Individual institutions may set their own learning outcome standards beyond the defined threshold academic standards in any or all disciplines and may choose to also submit them for audit.

    - Individual institutions are free to determine the curriculum, teaching methods, resources and assessment methods leading to the achievement of the defined core learning outcomes.

9. Ownership and Endorsement of Threshold Learning Outcomes must be understood:

    - A core principle of the project is that the disciplines own the standards. However, in this context, as in intellectual property issues generally, it is less important to establish ownership than it is to establish conditions of use.

    - Through the LTAS project, DEEWR and ALTC combined in a partnership to facilitate the disciplines setting standards and taking ownership of them. ALTC will have

stewardship of the standards until the definitive structure and operation of the new Quality and Standards Framework is negotiated and TEQSA is in place.

6 Frequently Asked Questions

To address various questions raised about the LTAS project, the following FAQs were developed. Although some are now dated, they provide useful information for disciplines attempting to set standards.

Where does this project fit in the new quality and standards framework for higher education?

The Higher Education Standards Framework is being developed to underpin the standards approach to quality assurance and will be overseen by the Tertiary Education Quality and Standards Agency (TEQSA) from 2011. The framework is being refined and will soon be released by the Department of Education Employment and Workplace Relations. Standards related to learning and teaching include the new Australian Qualifications Framework (AQF) and the definition of the learning outcomes that a recent graduate of any given discipline at any qualification level is expected to demonstrate. The LTAS project is addressing the definition of those threshold disciplinary learning outcomes within the parameters of each degree level as defined in the AQF.

Why do we need to do it?

Defining baseline learning outcomes for graduates at the disciplinary level allows us to assess their achievement and to demonstrate that all Australian graduates meet at least a baseline standard that is internationally comparable.

What is the scope of this project?

This project is a demonstration project to engage discipline communities (professional, academic, regulatory, educational) in defining discipline based learning outcomes in terms of minimum discipline knowledge, discipline specific skills and professional attributes and capabilities. It does not address the development of curriculum or assessment methods to ensure the achievement of those outcomes – a task which is subsequent and best located within an institutional academic framework.

How does this relate to the strengthened Australian Qualifications Framework (AQF)?

The AQF defines the characteristics of different levels of qualification in Australia. It answers the question "What is a graduate expected to know, understand and be able to do as a result of learning?" for each level of qualification. For example it defines the purpose and notional duration of a Bachelor's degree and the level and type of knowledge, skills and their application that a graduate should have. Graduates at the level of a Bachelor's degree are expected to have the attribute: *Systematic and coherent body of knowledge, principles and concepts and higher order learning skills for further learning and professional employment (AQF Council, Strengthening the AQF Consultation paper, September 2009).*

The LTAS project takes this as a starting point and aims to define minimum or threshold learning outcomes that define and describe the "coherent body of knowledge, principles and concepts and higher order learning skills for further learning and professional employment" in a specific discipline area.

If learning outcomes are defined how do we avoid the risk of standardisation of curricula and courses and loss of institutional diversity and autonomy?

There are two broad safeguards against standardisation and loss of autonomy:
- Threshold or minimum outcomes are the core "must haves" not the totality of learning outcomes. Institutions may, and are encouraged to differentiate themselves by defining additional learning outcomes according to their own mission.
- The ways in which these outcomes are taught, learned and assessed are not defined. Curriculum is defined by the institution not by the national framework. In this way academic autonomy is retained.

How would achievement of minimum discipline learning outcomes be demonstrated?

This is a key question for the new regulatory regimen. It is anticipated that higher education institutions, DEEWR and TEQSA will engage in consultations on this issue once TEQSA is established. In the interim this project will serve to lay the groundwork for concepts and approaches which will be central to those consultations. In the course of the project information will be gathered from both international experience and local consultations that will indicate options for efficient and cost-effective approaches to assurance of the quality of learning outcomes.

How will minimum discipline learning outcomes be identified?

By broad consultation among academic communities, professional bodies, employers, regulators and students. Consensus is not unanimity. Learning outcomes can be defined as:
- Must achieve (threshold or minimum)
- Should achieve
- Nice to achieve.

Consensus might attach to a menu of outcomes from all three categories with only the core ones being prescribed for quality assurance purposes. It is anticipated that international benchmarks will be useful for this purpose.

If we define minimum standards won't that lower standards overall leading to a race to the bottom?

There is no evidence that this will happen. Most professional degrees have already defined their expected minimum criteria for a graduate to be considered a safe "beginning practitioner". There is no reason why defining similar criteria for disciplines that have not had this tradition should have different results. The definition of minimum criteria, however, does provide a national benchmark that allows programs that cannot demonstrate that their graduates meet the threshold levels of competence to be identified and assisted to improve. Defining levels of performance above the minimum learning outcomes and ways to measure them is not the purpose or aim of this project. That task must be for subsequent academic consideration.

Learning outcomes can be defined at many different levels – what level is the LTAS addressing?

The project intends to address a level which is sufficiently specific to guide curriculum development in the discipline but not so specific as to restrict innovation and academic autonomy. At the national level 4 to 6 program/degree outcomes are favoured over detailed subject rubrics which are more appropriate for use at the institutional rather than national level.

Why are only some disciplines or subjects being addressed in the project?

The original discipline groupings devised by ALTC were intended to align with the type of subject groupings most commonly found in Faculties or Colleges of universities. There is a

great deal of variation in the scope covered by each of these discipline groups. For example, law is a relatively well defined group whereas the health grouping covers medicine, dentistry, nursing, the full range of allied health and veterinary science. Similarly the group covering arts, social sciences and humanities (ASSH) covers a vast range of areas which are disciplines in their own right eg psychology or theology. The project is a "demonstration" project aimed at developing a method for collaborative definition of threshold learning outcomes. In some areas such as Law this is a straightforward task. In other areas such as health and creative and performing arts the discipline groupings have agreed to pursue a set of learning outcomes which apply across all of their sub-disciplines, to be followed by a process of further defining them in each of the areas of practice eg nursing or music. In the case of the business related groupings the discipline has decided that its highest priority is accounting at both UG and PG levels. In the case of ASSH a decision was taken by the discipline group to focus on two specific discipline areas: geography and history in 2010.

Whatever the focus that has been chosen by the discipline groups the intent is the same – by the end of 2010 a set of learning outcomes and a commentary on the process by which they were achieved will be available to advise those disciplines which will follow over the coming years as the process is established within the discipline communities.

How do the threshold learning outcomes relate to existing accreditation standards in the professions?

In those disciplines where existing accreditation standards exist they are being built on in the process of defining the learning outcomes. The professions and regulatory bodies are involved in an integral role in this project through discipline reference groups and stakeholder consultation.

How will the LTAS demonstration project relate to the implementation of the quality and standards framework by TEQSA?

This question is not able to be answered with certainty before TEQSA is fully operational. However, a critical component of the LTAS project is the collection of information from peak bodies and stakeholders that will assist TEQSA in the development of processes for using threshold learning outcomes in the national quality assurance program. Through active participation in this demonstration project it is also anticipated that stakeholders will be enabled to be more effective partners with TEQSA in the development of its processes.

What happens at the end of 2010?

The other critical component of the LTAS project is to work with key stakeholders such as Councils of Deans and accreditation agencies and eventually TEQSA to develop proposals for scalability and sustainability of the process. The LTAS is a demonstration project which, in addition to defining learning outcomes for specified disciplines, will propose an efficient system for extension to all disciplines and for maintaining a process of regular review.

How does this project relate to similar international projects?

The UK Quality Assurance Agency (link to http://www.qaa.ac.uk/) has developed a set of subject benchmarks which will provide a resource for our project. It is envisaged, however, that the Australian project will not pursue learning outcomes to the same level of detail. The European Tuning Project (link to http://tuning.unideusto.org/tuningeu/) is closely associated with the LTAS project and many of its resources will be useful background to Australian deliberations.

At this stage of defining learning outcomes the LTAS project is monitoring, but not addressing, the same issues as the OECD Assessment of Higher Education Learning

Outcomes (AHELO) project. (link to
http://www.oecd.org/document/22/0,3343,en_2649_35961291_40624662_1_1_1_1,00.html)

7 Words of Advice

The following is a useful checklist for groups embarking on the establishment of TLOs

7.1 Indicators of success

- Clearly articulated threshold learning outcomes by end of project
- Outcomes that are realistic – measurable and assessable, seen as valuable and achievable within the resource base of the sector
- Outcomes that are actually used by academic boards and departments
- Positive feedback from the sector and offers to test/adopt the standards
- Other disciplines wanting to take up the process
- Schools not being pulled in different directions by professional accreditation, universities, TEQSA, and defined learning outcomes
- Evolution beyond inputs to outcomes
- A process that will engage and educate academic units and their academics and prepare them and their Deans for audit by TEQSA
- Fair level of consensus between academic and professional sectors or at least moving them from indifference to engagement
- Commonality across disciplines in the nature of the outcomes defined
- Acceptance by relevant discipline communities including students and international accreditation agencies
- A framework that can be implemented efficiently, including new curriculum architectures.

7.2 Challenges

Defining the outcomes:

- Translating broad outcomes into meaningful specific outcomes so that agreement can be reached across the spectrum of stakeholders

- Making outcomes assessable (threshold/minimum attainment) by both qualitative and quantitative methods

- Embedded generic skills and inclusion of values and dispositions is important but difficult to specify – avoid focusing exclusively on content

- Avoid letting learning outcomes become too complex or go too far

- Degrees prepare graduates for multiple potential roles, making it even more important to ensure generic skills are embedded in curricula

- There are many ways of looking at complex disciplinary behaviour – and difficult to separate them when they are integral

- Identifying higher order thinking skills.

Taking context into account:

- Managing expectations

- Being aware of the gap in expectations between the academy and practitioners

- Understanding the business and societal context

- How do we know we've set the bar at the right level

- Making it explicit to students

- Gathering evidence of the validity of the outcomes

- Ensuring broad stakeholder engagement and ownership but without allowing workforce issues and workplace needs to dictate the outcomes because they may not represent future issues and needs

- Funding models based on traditional teaching delivery models rather than skill development and value-adding

- Australian system based on sequential academic and then professional training, skill development falls between two

- New national registration and regulatory structures for the professions drive towards national standards

- Tensions between universities and other accreditation processes.

7.3 Advice

To ensure ownership of the process:

- Ensure that the sector 'owns' the project and that autonomy is maintained in this process
- Emphasise that standards do not equate with standardisation
- Remember that professional groups and industry groups may hold different views and that it is important to include the views of students as well
- Draw on work that has already been done nationally and internationally
- Keep it simple and make it accessible.

Maintain high standards:

- Explicitly address the misconception that threshold or minimum standards equate with 'dumbing down'. Threshold standards are realistic levels of knowledge, skills, attitudes and abilities that can be expected of a beginning practitioner in any field.
- Set thresholds as high as possible and align with international standards. Also consider entry levels and articulation patterns.
- Underlying this is also the advice to not be constrained by current practice or curricula but to think to the needs of the future, which may be largely unknown but can be anticipated, for example the increasing importance of interdisciplinarity
- Ensure that the outcomes are assessable.

Strategic issues

- Retain research in the learning outcomes definition so that it reinforces the importance of research involvement and ability to transfer evidence into practice
- Be mindful of the teaching staff's concern about regulation and increased workload
- Make explicit the ramifications of not responding
- Undertake risk management from the outset and be mindful of ways in which the process can be distorted or misrepresented.

8 Recommended Process for Disciplines Establishing Threshold Learning Outcomes (TLOs)

Advisory/Reference Teams

1. <u>Expert Advisory Groups (EAG)</u> – for *each* discipline a small team comprising 3-4 experts should be established to provide prompt, critical and constructive input to the project leader on TLOs as they are developed. This small group must be prepared to respond within short timeframes and should include at least one representative from the principal body representing that discipline in Australia.

2. <u>Discipline Reference Groups (DRG)</u> – should comprise discipline experts selected from Australian universities that offers a major or program in the discipline plus a small number of additional key stakeholders (eg professional associations and agencies, accrediting bodies, relevant private providers), including at least one representative from the principal body representing that discipline in Australia. That person may be one of the university-based discipline experts. Where appropriate, the DRG will include eminent international advisory members. The DRG will:
   - comment promptly, critically and constructively on the EAG's draft academic standards for their discipline.
   - communicate with their own academic units and other relevant stakeholders on the progress and outcomes of the project.

Process

Phase 1 – draft TLOs
- Use the Australian Qualifications Framework for Bachelors degrees as the core framework around which discipline-specific standards will be established. The framework points to prospective development of standards in the three domains of: knowledge; skills; application of knowledge and skills.
- Use Australian professional accreditation standards where they exist for the discipline.
- Use international reference points where available eg UK QAA (Quality Assurance for Higher Education) subject benchmark statements and other relevant statements (eg Tuning project or accreditation standards) for the selected disciplines as a starting point to draft Australian standards – where such statements exist. EAG consulted for guidance on other helpful resources. The QAA and other statements are to provide a guide only, offering insights to comparable international standards, raising issues that may warrant consideration, and pointing to specific skills, knowledge and their application that might be taken up in Australia.

Phase 2 – EAG input
- Circulate draft standards statement to the EAG for input and amendment.

Phase 3 – DRG input

- Circulate amended draft standards statement to the DRG for their comment and amendment. Members of the DRG will be asked to solicit opinion from relevant staff in their own institution and incorporate that into their own responses.
- Arrange at least one face-to-face meeting of the DRG and/or broader discussion/dissemination of the draft standards at relevant national discipline conferences.

Phase 4 – check consultation prior to wider circulation
- Circulate widely the standards revised in light of the DRG's initial comments for their final comment and correction.

Phase 5 – circulate final drafts
- Circulate penultimate standards document to the principal body representing each discipline for final remarks and endorsement.

References

AQF (Australian Qualifications Framework Council) 2009, Strengthening the AQF: An Architecture for Australia's Qualifications, September. Available: www.aqf.edu.au

9 Sample Terms of Reference for Discipline Reference Group

Overview

The Learning and Teaching Academic Standards Project is managed by the Australian Learning and Teaching Council. The project involves the definition of threshold learning outcomes for disciplines or programs at each level of higher education qualification.

Terms of reference

The Reference Groups will support the definition of the Threshold Learning Outcomes for their specific discipline.

The Discipline Reference Groups will have the following Terms of Reference:

to provide advice to the project lead group on the definition of TLOs and consultation

to draft and/or review drafts of project-related material, including statements of threshold learning outcomes

to facilitate and support engagement with key discipline group stakeholders.

Meetings

Each Discipline Reference Group will meet regularly however the Chair may call extra meetings to discuss specific matters or may call on individuals for informal advice and support.

Most meetings will be conducted by teleconference, however, face-to-face meetings may be required. The Chair may invite other person/s to attend any meeting or meetings as required, to assist with the achievement of the reference group's role and responsibilities.

Discipline Reference Group Structure and Membership

- *Chair*
- President of the discipline's principal national body (or their nominee)
- One member drawn from the relevant Council of Deans
- Three discipline experts (covering various parts of higher education sector such as Innovative Research Universities and Group of Eight. Discipline experts should also have some demonstrated interest in learning and teaching)
- One discipline expert with substantial experience in learning-and-teaching standards setting in a jurisdiction other than Australia (e.g. UK QAA)
- Where applicable a nominee of the relevant professional accreditation body
- At least one relevant employer representative

- One recent graduate/postgraduate from the discipline working outside the tertiary sector

- One representative of relevant private providers

- If possible, the committee should include at least one Fellow of an appropriate Australian learned academy (eg Australian Academy of Humanities, Australian Academy of Science, Australian Social Sciences Academy). To the extent that it is practicable, there should be some geographical spread of Reference Group membership across the country.

10 Articulating the nature and extent of the discipline

An important early step in the development of discipline-based Threshold Learning Outcomes (TLOs) is to articulate clearly this discipline in terms of its nature and extent. This articulation serves a number of purposes, including the following:

- It allows the focus and boundaries of the discipline to be understood by all parties, to ensure that the TLO development landscape is comprehensively covered.

- It assists you to bring related disciplines together, particularly those sharing boundaries.

- It helps other interested parties (eg stakeholder groups, reference group members) to understand the parameters of the proposed TLO development exercise.

- It will act as an explicit reference point in the development of the TLOs.

- It will, in time, allow for the TLOs to be read within their intended context.

This 'nature and extent' statement should be written for audiences both within and outside the discipline. Below are examples developed by some of the disciplines in the LTAS Project.

Example 1: Nature and extent of the Creative and Performing Arts

Bachelor and postgraduate degrees in creative and performing arts are offered by almost all Australian universities as well as by a range of other higher education providers. There are many reasons why such degree programs are in such high demand, but first and foremost these degrees provide a pathway into a flourishing arts industry that has a highly significant impact on the lives of most Australians.

The importance of the creative arts to Australians is reflected in a strong demand for a higher education in the field. In 2008, in the Australian higher education sector, the full-time equivalent of 11, 998 students **commenced** study in the creative arts (actual number of students: 23,193); in 2009 commencements increased by 15.9% to 13,907 students (actual number of students: 27,085).

In 2008, the **total** enrolment of full-time equivalent students in creative arts in the higher education sector was 29,392 (actual number of students: 64,350). This had increased by 10.2% in 2009 to 32,391 (actual number of students: 70, 454). In 2009 this represented 7.9% of all enrolments in the higher education sector.[1] In the Creative Arts there has been a 14% increase in enrolments since 2004. [Australian Bureau of Statistics: http://www.abs.gov.au/ausstats/abs@.nsf/mf/6281.0/]

Of the broad discipline groups, only enrolments in the natural and physical sciences (11.9%), health (11.6%), management and commerce (20.6%) and society and culture (25.9%) exceeded those of the creative arts in 2009.[2]

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[1] Department of Education, Employment and Workplace Relations 'Statistics Publications (Summary Tables: Students 2009 [first half year]: selected higher education statistics - All Higher Education Providers)'.
http://www.deewr.gov.au/HigherEducation/Publications/HEStatistics/Publications/Pages/Students.aspx [Viewed Saturday, 24 July 2010]

[2] Department of Education, Employment and Workplace Relations 'Statistics Publications (Summary Tables: Table (i) Summary of Student Numbers, 2003 and 2004)'.

The Australian Bureau of Statistics (April 2007) reported that during the previous 12 months, "an estimated 3.5 million (22%) of Australians aged 15 years and over were involved in some form of paid or unpaid work relating to the selected culture and leisure activities covered in the survey".[3] While this report also included leisure activities such as work in libraries and archives, heritage organisations, botanic gardens, national parks and reserves and zoos and aquaria, the vast majority of activities cited in the survey were in the creative arts.

In the, *Report of the contemporary visual arts and craft inquiry*, it is noted that the visual arts and crafts sector had, "around 20,000 visual artists and craft practitioners *as well as* curators, arts writers and other arts workers, and hundreds of organisations ranging from small artist-run initiatives to the major state galleries" (Department of Communications, Information Technology and the Arts 2002 p5).

Screen Australia notes, furthermore, that in 2006 over 45,000 people were employed in audiovisual industries (Screen Australia 2010). 66% of all Australians went to the cinema at least once in 2008 and, on average, this group attended the cinema 7.3 times. Of the 349 films released in Australia in 2009, 46 were made in Australia.[4]

Many graduates from a range of creative and performing arts degrees are employed in the media – an industry which reaches a huge audience in Australia. In 2009, 99% of Australian metropolitan households owned a television and 68% had two or more sets. According to Roy Morgan Research, "in a typical week the average Australian adult spent 21 hours and 46 minutes watching television. (Screen Australia 2010)".[5] Participation rates in associated media such as radio, the internet and on-line services are also high and increasing.

According to the 2006 Census of Population and Housing, the main job of 296,183 people was in a cultural industry (Australian Bureau of Statistics 2009). This is far exceeded by the number of people involved part-time either in paid or unpaid cultural activities. The Australian Bureau of Statistics 2007 survey, 'Work in selected culture and leisure activities', reports that 1.4 million persons had a paid or unpaid involvement in **visual art** activities during 2006-7. A further 960,800 persons (or 27% of all persons involved) had an involvement in **craft** activities. The figures for other activities are also very significant. There were 506,300 persons involved in the **performing arts**; 459,200 in **design**; 409,800 in **festival organising**; 335,100 in **music**; and 606,500 in **writing**.

Among many occupations, graduates from creative and performing arts degrees become artists, craftspeople, actors, dancers, writers, composers, musicians, comedians, film directors and producers, copywriters, editors, illustrators, teachers, museum professionals and curators, website and electronic games designers, interactive display designers, theatre directors and designers, recording, lighting and sound technicians, publishers, events managers, photo-journalists, creative directors and arts administrators.

Not only do these graduates become front-line professionals in the arts but many other graduates lead successful and fulfilling professional lives combining their own creative practice with other forms of work; others find equally successful careers working full or part-time in the myriad of other occupations that populate the arts industries in Australia; others move into other discipline-specific professions enriched by the focus a creative or performing arts degree places on the skills, knowledge and understanding of creative practice, its languages, forms, materials, techniques and the technologies it embraces.

Typically, graduates in creative arts will be able to demonstrate a range of skills and knowledge relating to the discipline of their choice and will have the capacity to think creatively, critically and reflectively. They will be able to communicate effectively in a range of modes and contexts and will have the capacity to produce works, artefacts and forms of creative expression for public display. They

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http://www.deewr.gov.au/HigherEducation/Publications/HEStatistics/Publications/Pages/2004HalfYear.aspx [Viewed Saturday, 24 July 2010]

3 Australian Bureau of Statistics 'Work in Selected Culture and Leisure Activities,' http://www.abs.gov.au/ausstats/abs@.nsf/mf/6281.0/ [Viewed Saturday, 24 July 2010]

4 Screen Australia 'Get the picture. Fast facts: Cinema.' http://www.screenaustralia.gov.au/gtp/fastcinema.html [Viewed Sunday, 25 July 2010]

5 Peters, Bob 'Free-to-air television in Australia,' in Screen Australia's 'Get the Picture.' http://www.screenaustralia.gov.au/gtp/fastcinema.html [Viewed Sunday, 25 July 2010]

will be able to work independently and to collaborate with others and can be expected to have a sound knowledge of national and international developments in their discipline.

Example 2: The Nature and Extent of Geography

Geography is the investigation and understanding of the places that make up our world. The discipline raises and answers questions about why places are like they are, how they are connected to other places, how and why they are changing, and how and why their characteristics vary from place to place. It takes up these questions from the local scale to the global scale and through time. In their work geographers study the natural features and development of places, their human elements, and the inter-relationships within and between nature and humanity, including the transformation of 'space' into 'place'.

Geographical knowledge and understanding is based on three complementary analytical perspectives. The first is focused around the concept of place. This examines the interrelationships between the characteristics of places and encourages comparison, an important geographical method of analysis. It also brings many areas of geography together in a holistic approach to understanding and supports development of knowledge of the characteristics of localities, cities, regions, countries and continents throughout the world, and how these can be understood. It includes an exploration of what places mean, and the ways in which the places we inhabit shape our lives.

The second perspective is focused around the concept of environment. This includes the study of the biophysical environment and its resources. Importantly, it also encompasses the reciprocal links between the biophysical environment and human activity.

The third perspective is focused around the concept of space. Geographers taking this perspective study how, why and with what effect, diverse phenomena – such as economic activity, population, soils or vegetation – vary across the surface of the earth. This aspect of geography is broad-ranging and covers a vast range of topics, such as climate change, globalisation, and social movements.

Example 3: The Nature and Extent of Accounting

3.1   Accounting is concerned with the provision and analysis of information to a broad range of internal and external stakeholders for a variety of resource allocation decisions and compliance purposes (for example, regulation and governance).

3.2   Accounting practices undertaken to assist resource allocation decisions and compliance include, but are not restricted to:

- recording and summarising transactions and other economic events
- application and interpretation of accounting standards in the preparation of financial statements
- analysis of the operations of business (for example: performance measurement; management control; decision analysis)
- financial analysis and projection (for example: analysis of historical trends for budgeting; analysis of financial ratios for budgeting or raising funds; analysis of cash flow from operations; analysis of financial risks in light of operating in an uncertain future economic climate).

3.3   Accounting can be applied at different levels including individuals, private, public and not-for-profit organisations, markets, society and the environment.

3.4   Accounting practice is not conducted in isolation but is informed by various perspectives including social, ethical, economic, regulatory and global.

3.5   The body of accounting knowledge is informed by relevant research, scholarship and application in the workplace.

3.6   Topics included in the body of accounting knowledge are financial accounting (including accounting systems and processes, professional and regulatory processes and theoretical financial accounting issues), management accounting (including organisational functioning and theoretical management accounting issues), auditing and assurance, finance, economics, quantitative methods, information systems, commercial and corporation's law and taxation law.

3.7   This statement assumes that a degree-level award involves the consideration of both theoretical and technical aspects. It does not, however, make any assumption about the relative weighting of these aspects. While programs may differ between higher education providers, they cannot be considered a degree level if they neglect either theoretical or technical aspects of accounting. In the case of joint programs or double majors, the scope, depth and balance of concepts and application should not result in a neglect of either the theoretical or the technical aspects of accounting.

3.8   Accounting degree programs and majors prepare accounting graduates to think like an accountant. This includes being able to face and interact with various accounting and business contexts, think reflexively and conceptually about financial and other information, and work collaboratively with accountants and other users to make informed judgments and justify such advice to others. In addition to analysing, projecting, judging, solving and communicating accounting advice and ideas, they are able to execute tasks effectively, knowing when to seek assistance from a supervisor or a colleague, as well as being able to reflect and learn from experiences.

Graduate Careers

3.9   Graduates of Bachelor, Master (Entry) and Master (Advanced) degrees typically pursue an accounting career in a range of roles and organisations. The roles could include financial accountant, management accountant, tax accountant or auditor. Organizations can vary in size and be located in the private, public or not-for-profit sector. Some level of supervision and guidance would normally be expected in these roles.

3.10   The significant majority of graduates from accounting degree programs and majors become associate members of a professional accounting body with the intention of subsequently undertaking further professional study to pursue full membership. CPA Australia, the Institute of Chartered Accountants in Australia, and the National Institute of Accountants in Australia are common entry pathways to the Australian accounting profession. Some students consider an Australian accounting degree program as a pathway for entry to an overseas professional accounting body. However, some students consider the degree program to provide a useful introduction to fields such as commerce, industry and finance, and the public and not-for profit sectors. Other students study accounting predominantly as an intellectual pursuit.

3.11   The standards specified in this statement for Bachelor and Master (Entry) degree programs assume they are designed primarily for those wishing to develop a foundation of

accounting knowledge and skills. The standards specified in this statement for Master (Advanced) degree programs assume prior possession of a foundation of accounting knowledge and skills typically acquired in a first accounting degree, namely a Bachelor degree with a major course of study in accounting. This degree serves to deepen pre-existing knowledge and skills.

3.12   Given multiple student motivations and employer needs, it is to be expected that providers pursue different missions reflecting their various market niches.

Relationship to Profession and Accreditation

3.13   Australian accounting degree programs and majors typically take an Australian perspective particularly in relation to accounting practices as well as current accounting regulations, rules and standards (based on International Financial Reporting Standards), and corporation and taxation law.

3.14   Although many Bachelor and Master (Entry) degree programs prepare graduates for entry to a professional body, this statement is not predicated on the content and learning outcomes prescribed or implied by professional accounting bodies.

3.15   Completion of a Bachelor or Master degree program or major in accounting is not a necessary or sufficient condition for membership to a professional accounting body. Professional accounting bodies have their own requirements for graduates in addition to the completion of an accredited degree. They also have obligations as member organisations of the International Federation of Accountants (IFAC) and the International Accounting Education Standards Board (IAESB).

Relationship to Providers

3.16   A diverse range of higher education providers award accounting Bachelor and Master degree programs and majors in Australia. This includes public and private vocational education providers as well as public and private universities.

3.17   The academic standards in this statement recognise that many higher education providers seek to differentiate their program or major by attracting and extending students to enhance their employment opportunities by requiring attainment levels beyond any national threshold. For example, programs consistent with a particular provider's mission, might prevent their students from graduating unless they can demonstrate learning outcomes well above the threshold standard and/or across a greater number of learning outcomes than the number of threshold learning outcomes specified in this statement. A contrasting example might be a provider that chooses to deliver differentiated degrees to the market, such as a Master (Entry) degree, with a passing academic standard set at the national threshold level for the learning outcomes in this statement, but set a passing standard for the Bachelors degree above the national threshold for one or more learning outcomes specified in this statement.

3.18   Just as the weighting of theoretical versus technical aspects can vary, this statement makes no prescription about the relative weighting of the threshold learning outcomes a provider may choose to emphasise.

3.19   While provider diversity is valued, all providers of Bachelor and coursework Master degree programs and majors in accounting are expected to meet or exceed the relevant threshold learning outcomes.

3.20   This statement makes no prescription about the suitability of any set of calibration, moderation or review processes used by providers, internally or externally, to maintain or assure standards on accounting threshold learning outcomes.

Relationship to Qualifications Frameworks

3.21   Accounting academic standards were developed to align, where appropriate, with international academic standards for accounting, for example the Accounting Benchmark Statement from the United Kingdom (2007) which was originally developed in 2002. Appendix 4 provides a comparison of relevant key learning outcomes although only the UK explicitly identifies threshold standards as opposed to typical or aspirational learning outcomes.

3.22   Accounting academic standards were developed to align with the draft Australian Qualifications Framework. These were under revision during the development process. For example the revised draft released in July 2010 included several key statements relevant to the development of accounting academic standards. For example:

"A Masters Degree (Coursework) may be designed for entry to a 'regulated' profession and may include a significant component of structured work-integrated, or practice related learning developed in collaboration with a relevant Professional, statutory or regulatory body"(AQF, 2010; p. 39).

"In the development and accreditation of a Masters Degree qualification developers and accrediting authorities must ensure that, overall, the majority of learning outcomes of the qualification are at AQF level 9" (AQF, 2010; p. 39).

3.23   The majority of the standards for Master (Entry) graduates are at AQF level 9. This recognises the former have typically completed a first degree in a discipline outside accounting and have developed not only a set of non-accounting knowledge and skills but also generic skills from their first degree and/or work experience. While the threshold learning outcomes for knowledge and cognitive thinking skills are the same as the Bachelor accounting graduate, this is acquired over a shorter duration. In addition, cognitive skills of judgment and generic skills of communication and self-management are further refined and prior non-accounting knowledge, where appropriate, is utilised.

3.24   All the standards of the Master (Advanced) degree are at AQF level 9. This recognises the Master (Advanced) serves to develop advanced theoretical and technical accounting knowledge and further refine cognitive, technical and generic skills developed in prior learning and work.

3.25   Various terms are used to distinguish different qualification levels, domains and dimensions. These are described in the glossary in Appendix 6, and many have been extracted from the draft Australian Qualifications Framework glossary (draft 8/4/2010). Some dimensions have subtle but important differences which were developed by the working party and reviewed by the accounting higher education community. For example, in distinguishing threshold learning outcomes for different degrees, the difficulty of the accounting problem or task varies from routine to emerging and/or advanced. Similarly the context of the accounting problem varies or the collaboration required can vary from straightforward, through diverse to complex.