15 March 2019

Professor Peter Noonan
Chair, Australian Qualifications
Framework [AQF] Review

Via email: AQFReview@education.gov.au

Dear Professor Noonan

Submission by Swinburne University of Technology

We are pleased to provide a submission and are grateful for the opportunity to attend the Melbourne stakeholder consultation on 11 February 2019.

Background and purpose

Swinburne University of Technology (Swinburne) is a dual sector university based in Melbourne, but offering Higher Education and Vocational Education programs globally through multiple partnerships and a campus in Sarawak, Malaysia. Swinburne has significant cohorts with particular characteristics that differentiate Swinburne. For example, almost half of Swinburne undergraduate students study online. Swinburne's online cohort are almost all part-time and mature-aged and include a growing cohort of students comes from regional, remote and low SES backgrounds. Swinburne is also seeing one of its fastest growth areas in delivery through B-to-B relationships with employers across different sectors.

Accordingly, Swinburne strongly endorses the objectives of the AQF and their aim to provide an internationally recognised and quality-focused qualifications framework that meets both the current and future needs of government, the economy and individual learners. As the consultation paper recognises, it is essential that the multiple reviews and frameworks across the system affecting education integrate to ensure a robust and comprehensive system.

Swinburne argues strongly for a principle-based approach to change and sufficient flexibility in any detailed descriptors to ensure that the AQF can adapt to the rapid changes noted in the contextual overview. This approach is also necessary to cater to the potential changes in funding that are likely from the different reviews and likely adjustments to Government policy both at federal and state level.

In this context, Swinburne has long advocated for a seamless education system catering to lifelong learners. While the AQF facilitated the current model in its existing form and did not act as an impediment to flexible funding and other frameworks, Swinburne encourages the Review to consider the growing demand for a matrix model of qualification instead of a linear approach that facilitates multidirectional movement between qualifications and levels rather than progressions from a lower to higher level as the preferred movement.

Professor Duncan Bentley
Deputy Vice-Chancellor (Academic)
Level 1 Swinburne Place South
24 Wakefield Street Hawthorn
Victoria 3122 Australia

PO Box 218 Hawthorn
Victoria 3122 Australia

Telephone +61 3 9214 4977
Email: dvca@swin.edu.au
ABN 13 628 586 699
CRICOS Provider 00111D

It is important for learners from increasingly diverse backgrounds at different AQF levels to undertake what are currently 'lower level' qualifications to increase productivity and employability or to include components of 'lower level' qualifications as building blocks to ensure the effective attainment of 'higher level' learning outcomes. A matrix would help recognise the increasing importance of composite qualifications of different types and levels to the future economy and employment outcomes and cater to the individual and context in which the qualification is to be used.

This approach would facilitate the inclusion of foundation and enabling qualifications in the framework for different qualification levels. It would also allow a more nuanced and effective approach to and support for different models of Secondary education.

New forms of credentials

The imperatives of the economic demand for different skill levels impacts on traditional learners and will have a material impact on the current workforce as the digital economy expands rapidly. One of the responses for both sets of learners is the introduction of new forms of credentials such as micro-credentials, and how these might be recognised in the context of the AQF.

Swinburne has developed a Credentialing Framework (Attached Appendix A) designed to make sense of what is currently a messy and complex set of opportunities by providing a set of definitions and structures that can facilitate planning and design. Terminology is important, and is a current barrier to sector-wide change and mutual recognition.

The Framework differentiates credentials that might potentially align to the AQF through the awarding of academic credit towards macro-qualifications from those credentials that might be more appropriately linked to the enterprise and social skills dimension in the AQF.

The Framework also suggests the necessary characteristics of those credentials that might be linked into existing macro-qualifications (e.g. Bachelor and Masters degrees), including the integrity of method of assessment of attainment or achievement.

Swinburne's framework does not necessarily require the creation of a new credential type in the AQF as it provides a way of linking various types of shorter-form credentials with the existing AQF macro-qualification, therefore protecting the integrity of the current AQF. We also advocate against formal structures such as the awarding of credit points for shorter-form credentials as this might lead to random construction of AQF macro-qualifications compromising coherence of learning and outcomes. Formal structures that recognise credentials within each current level could also undermine the movement towards a matrix approach outlined above. It might act as an unnecessary constraint.

Instead the focus in the AQF should be to establish a link from new credentials to existing AQF macro-credentials with process requirements for quality assurance, integrity and outcomes. Through robust process requirements under TEQSA regulation issues such as mutual recognition and portability may be managed.

A further constraint that the Review should avoid is defining new credentials by delivery type. Models of delivery are changing so rapidly that to constrain a qualification or credential to a form of delivery would ossify the AQF.

The advantage of the Swinburne Credentialing Framework is that it embraces co-creation of curriculum components and credentials with industry and professional bodies. This avoids locking the Australian university system in time, and responds to the needs of industry, as identified by the Australian Industry Group[1] and Business Council of Australia[2] in recent policy papers.

Enterprise and Social Skills

Swinburne agrees with the proposition put forward by the Panel that the AQF should not prescribe a universal or mandatory set of social and enterprise skills across qualifications. These skills should be acquired and assessed in the context of the individual qualification, and potentially recognised through new forms of credentials as proposed in the Swinburne Framework. However, Swinburne does support the updating of descriptors to include reference to contemporary enterprise and social skills. Most institutions now incorporate variations on these into their graduate attributes (see Appendix A for Swinburne's graduate attributes).

Taxonomies and Levels

This is addressed at the principle level in the Background and Purpose above. Swinburne also agrees with comments by the Panel Chair at the Melbourne consultation and in the Frequently Asked Questions that the 'Application of Knowledge and Skills' descriptors in the current taxonomy are challenging and suggest a hierarchy that does not exist in practice. Swinburne supports the significantly simplified approach outlined by the Panel Chair to resolve this.

Senior Secondary School Certificate (SSCE)

Swinburne supports revision of the SSCE descriptor to recognise that the knowledge and skills acquired in the SSCE can be a broad range of AQF levels and result in multiple pathways. This supports the matrix approach described above.

Volume of Learning and Credit Points

Swinburne is of the view that the current statements in the AQF's volume of learning explanation guide, referred to on page 27 of the Discussion Paper, are sufficiently broad to cater to different models of equivalence while assuring quality. Careful judgment of equivalence will become even more important as the AQF moves to update its descriptors and respond to the changing ways to deliver learning and to engage in learning. Volume of Learning should be seen as a guide rather than an absolute, and be based on a 'new learner' as the Panel proposes rather than a 'typical' learner. The AQF is a three-legged stool setting the framework for learners, providers and employers. Mature judgement of principle is far more effective than legalistic specification in order to meet the purpose of the AQF.
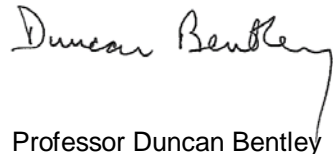
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[1] *Australian Industry Group, 2018*
[2] *Business Council of Australia, 2017*

PhillipsKPA recommendations

Swinburne supports an approach that streamlines and makes more efficient and effective the AQF policies and explanations.

Thank you for the opportunity to provide feedback to the discussion paper and for the consultation on these matters to date.

Yours sincerely

Professor Duncan Bentley
Deputy Vice-Chancellor
Swinburne University of Technology

The Swinburne Credentialing Framework

November 2018

Introduction

The world of work is undergoing significant transformation with the nature of jobs, tasks and skills rapidly changing in response to technology, globalization and social/economic developments. These changes are impacting the traditional forms of education and training with students, employers and governments now demanding new opportunities for learning and training. In recent years we have seen an increasing demand for shorter 'micro-credentials' and greater recognition of the value of soft skills for ongoing employability.

Swinburne is responding to these changes through the Transforming Learning Strategy to ensure that our graduates have the knowledge, skills and capabilities required for the future world of work.

An essential component of Swinburne's Transformation is to ensure that our credentials continue to meet the needs of students and employers, particularly responding to the call for shorter learning opportunities and recognition of soft skills.

Credentials are critical to the integrity and reputation of a university as they are the tangible and public outcomes of a student's investment in learning. It is therefore essential that any changes or developments are consistent with our values as a university and that new products and outcomes complement and link with our existing portfolio and value proposition.

The Swinburne Credentialing Framework sets the direction and make sense of what is currently a messy and complex set of opportunities. The intent of the Framework is to provide a set of definitions and models that will enable and facilitate credential initiatives.

Definition of a Credential

Credentials (both macro and micro) are evidence that learning has been achieved[1]:

- Educators create credentials to warrant that learners have achieved learning outcomes at or above the required standard.
- Graduates/students use credentials to communicate and evidence their achievements, to seek credit, employment or advancement.
- Employers and community perceive credentials as indicators of achievement and potential performance.

Macro-credentials include the typical University offerings in terms of degrees. However macro-credentials often prioritise on-campus full-time students and often do not allow for student flexibility or suit learners from minority groups[2]. This is driving reform both nationally and internationally as smaller credentials present a range of opportunities by enabling innovative and responsive education, flexibility for students, both those in full-time education and those wishing to learn while in work[3]. For example, one of the principle findings of the recent report guiding the review of the Australian Qualifications Framework is a desire to design a qualifications framework that encourages more flexible construction of learning pathways to better suit lifelong learning and a rapid response to changing technological challenges. It calls for development of a system for the quality assurance and incorporation within the AQF of sub-qualification credentials[4].

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[1] B Oliver, Better 21C Credentials, 2016
[2] B Mischewski, Micro-credentials: A model for engineering education, 2017
[3] NZQA, Micro-credentials in New Zealand's education and training system: a consultation paper, 2018
[4] AQF, Contextual Research for the Australian Qualifications Framework Review, 2018

The Case for New Credentials

There are many factors driving the need for alternative credentials, driven by the needs of employers, changes in technology and the requirements and expectations of learners.

Changing nature of employment, work and jobs

- The world of work is undergoing a period of significant change. Technological change, particularly automation, is displacing and disrupting many traditional occupations and changing the dynamic between knowledge and skills, work tasks and roles. In many industries the most in-demand occupations did not exist 10 years ago.
- Careers are no longer linear with studies estimating that Australians will change employers 17 times across 5 different careers over their working lives[5]. Two thirds of current workers are predicted to change their industry sector and roles within the next 10 years.
- Ongoing participation in the future of work requires portability of skills and knowledge between jobs and roles, and ongoing renewal, upskilling and training to keep up with technological and workforce trends.
- Qualifications and credentials may have a shorter shelf-life due to rapid changes in job requirements.
- Different forms, modes and dimensions of learning, training and credentialing are required to support transitions.
- Learning, training and credentialing needs to extend to new and career specific skills and knowledge, with greater recognition of transferable skills.

Changing expectations of learners

- Technological and social changes have moved the nature of learning from a linear experience to a complex network of learning opportunities
- Students now demand flexible, personalized 'just-for-me' learning experiences with variable start and end points that fully integrate with their lives and work.
- Learners enter into a learning experience to fulfil a particular purpose that meets their increasingly varied career trajectory.
- Education is therefore seen as a service evaluated against return on investment with a priority of attaining recognition/accreditation/validation over 'education'.

Questioning tradition

- Employers are questioning the value of traditional university credentials and considering other evidence for employment and advancement decisions[6]
- Traditional university credentials do not explicitly evidence the attainment of professional skills and capabilities (soft skills) valued by employers
- Students are questioning the value of traditional (long duration) university programs to build and demonstrate their skills and capabilities
- There is increasing recognition of the value of professional and alternative certifications

It is therefore necessary to develop alternative credentials to recognise professional skills and allow greater student flexibility.

Why a Credentialing Framework

New forms of learning objects and products are rapidly being introduced across the education sector in response to changes and trends in the world of work and student expectations. This has led to a proliferation of shorter-form credentials (micro-credentials, micro-units, digital badges, soft skills credentials, micro-credit, nano-degrees, MOOCs etc.), which has produced a confusing array of types of new learning options created by a variety of academic, industry, academia and third-party providers[7].

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[5] Foundation for Young Australians, The New Work Smarts, 2017
[6] Brown & Hesketh, The mismanagement of talent: Employability and jobs in the knowledge economy, 2004
[7] Lumina Foundation, Connecting Credentials: Making the case for reforming the U.S. credentialing system, 2015

The American Council on Education has noted the proliferation of credentials is causing confusion including a lack of shared understanding of what credentials are, what makes them valuable, the value of different credentials and how credentials are connected to each other[8]. They observed that students do not always have reliable ways to compare credentials with regard to what they include, their market value, their transferability and their relationship to other credentials.

A Framework can:

- Provide clarity through a consistent language and terminology

- Enhance portability and movement between and through credentials

- Inform student choice

- Increase employers' trust in and use of credentials

A Framework will:

- Define the types of credentials at each level, and how they are obtained

- Assist with movement between levels, including progression and aggregation

- Provide clarity on entry and re-entry points (admissions and RPL) and exit points (records of achievement)

A Framework will benefit university implementation of shorter-form credentials by:

- Providing opportunities for growth through new products.

- Providing market clarity for new educational products.

- Support scale and implementation across systems, people and processes.

Dimensions in the Framework

A framework for credentials may be created by identifying dimensions or characteristics of difference. The dimensions of granularity, value and structures provide insights into different forms of credentials.

Granularity

The granularity of credentials refers to the different size, scale and complexity, ranging from:

1. macro-qualifications which are formal credentials recognized in the AQF typically comprised of a complex set of components and rules and meeting recognized standards.
2. micro-qualifications which have a level of formal of recognition due to their use or potential use as components in macro-credentials.
3. micro-credentials which may be used to recognize the attainment of particular skills or attributes.

Value

Credentials may be applied, used or provide value in different ways:

1. Aggregation: Certain types of credentials may be aggregated, linked, stacked or combined providing a higher level of value. For example, a set of related micro-qualifications may be aggregated to provide academic credit into an AQF recognized macro-qualification.
2. Complementarity: The value in some credentials is inherently in themselves and may not be suitable or appropriate for aggregation towards academic credit. These credentials complement rather than directly add to formal qualifications.

Structures

Credentials are published and verified artifacts that provide evidence of attainment, and need to be separated from the learning object or recognition process that entitles the awarding of the credential.

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[8] ACE Centre for Education, Attainment & Innovation, Rethinking Credentialing, 2015

The Swinburne Credentialing Framework

The Swinburne Credentialing Framework provides a set of definitions and structures that facilitate thinking, discussion, planning and designing of credentialing initiatives.

Swinburne Credentialing Framework
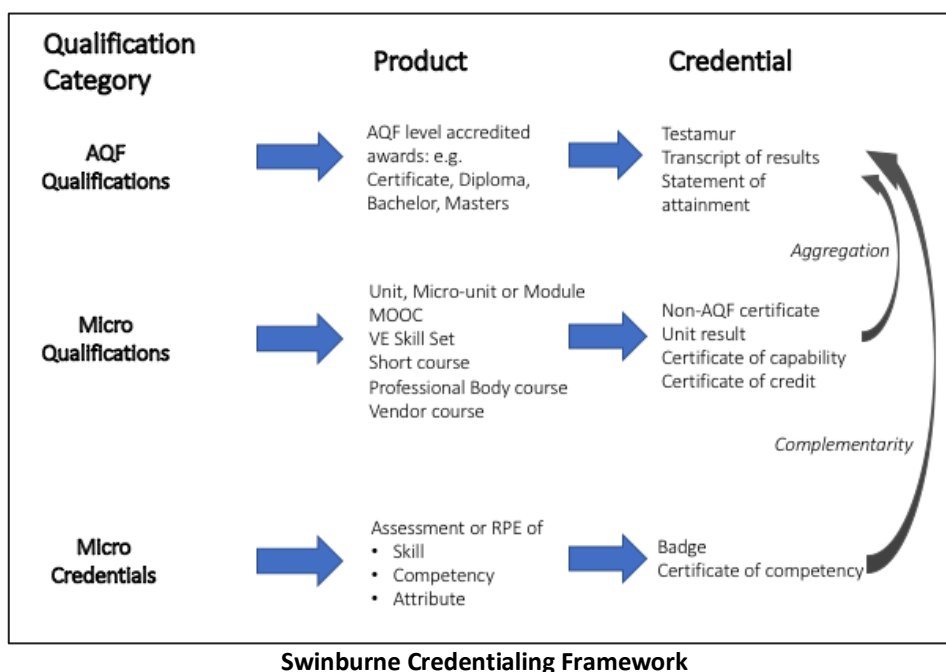
Two models of short-form credentials emerge from this framework: micro-qualifications and micro-credentials. These are distinguished through their key characteristics of:
- Micro-qualifications facilitate aggregation towards formal academic credit in AQF qualifications
- Micro-credentials recognize the attainment of skills and attributes, which might complement but not provide credit towards micro or macro-qualifications.

Model 1 – Micro-qualifications and Aggregation

Micro-qualifications are shorter-form credentials that do not map directly to AQF level qualifications. These may include single units/subjects, micro-units, modules and short courses. A distinguishing feature of micro-qualifications is that they may contribute directly as a component of a AQF qualification or may be aggregated, combined, stacked or linked to achieve a volume that can contribute towards an AQF qualification.

Micro-qualifications may be created in two ways:

1. Shorter-form learning objects may be created by disaggregating accredited credit-bearing units/subjects into several self-contained modules or micro-units. The micro-units may be marketed and delivered as separate short courses. Students may be provided with a Certificate of Completion as evidence of attainment of the particular skills and knowledge covered by the micro-units.
Credit points should not be assigned to the micro-units and completion of micro-units should generally not provide a basis for academic credit unless they are re-aggregated back into the original unit.
The self-contained micro-units can be re-aggregated (stacked) into the original credit bearing unit, with two assessment arrangements:
   a) Micro-units may be developed without embedded formal assessments or with optional assessments. Students who complete all micro-units required for re-aggregation will be required to complete a set of assessments to demonstrate their achievement of the Unit Learning Outcomes (see diagram below). Students might formally enroll into the original credit-bearing unit to be eligible for the assessments and to be granted the credential and academic credit.

b) Micro-unit may be developed with embedded formal assessments. The assessments fully map back to the assessment requirements for the original unit, therefore no additional assessments are required to be eligible for students to be granted the credential and academic credit.
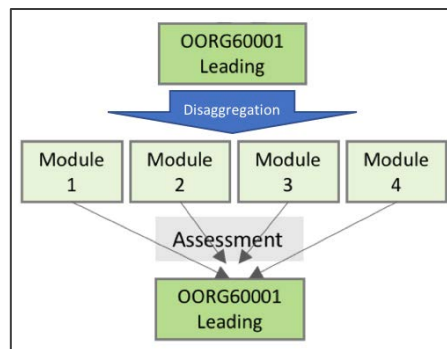
2. Micro-qualifications may also be short courses or training modules that are not based on existing accredited units/subjects. The micro-qualifications may be drawn from:
   - Training modules developed and delivered by professional bodies or software vendors
   - MOOCs or other online open training programs
   - University short course businesses

Modules and short courses may be aggregated (grouped/stacked) to achieve equivalence for academic credit. Credit would generally be unmatched as it would be unlikely that the combination of modules and short courses map exactly to the learning objectives of an existing accredited unit of study.

Rules for aggregation might include consideration of:

1. Volume of learning being comparable with an accredited unit/subject
2. Integrity of the method of assessment of attainment or achievement
3. The topic and relationship between modules and short courses.

Where the method of assessment of attainment or achievement is not sufficient then additional assessment may be required.

Unmatched academic credit would contribute towards a general elective in an AQF qualification, subject to course rules.
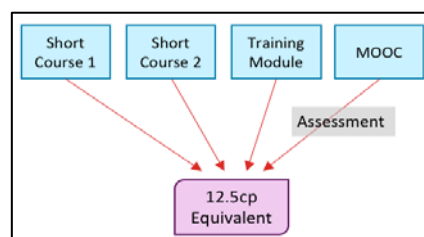
Model 2 – Micro-credentials and Complementarity

Model 2 provides a structure where micro-credentials operate in parallel with discipline-specific units. As a student learns discipline-specific skills and knowledge, the student may also acquire or develop other skills or attributes related to their discipline studies. These complementary competencies have separate value, however they also add to the achievement of the discipline-specific skills and knowledge.

Complementarity is the associated attainment of related competencies whilst completing learning activities and assessment tasks.

An example of complementarity is the recognition of the attainment of Graduate Attributes that are associated with the unit's objectives, learning activities and assessment. For example, communication skills may be enhanced during an oral presentation on a discipline-specific issue.

Students receive recognition of the achievement of unit learning objectives through a unit result that is published on a Transcript of Results. This unit result is a credential that contributes academic credit (credit points) towards an AQF qualification.

Competencies achieved through complementarity may be recognized through micro-credentials. The micro-credential is a published and verifiable artifact that evidences a competency. The micro-credential should not provide academic credit towards a formal qualification.

Alternative (non-academic, credit-based) recognition systems for micro-credentials may be used to evidence the attainment of competencies. For example, digital badges may be awarded as evidenced of attainment of graduate attributes. Competencies may be aggregated (grouped or stacked) towards larger competencies. Badges may also indicate levels of attainment as a student develops broader or deeper coverage of a competency. Digital badges may be used to motivate or engage students and to provide tangible evidence of the competencies of applicants seeking employment.