Graduates need to be able to articulate and evidence their capabilities in order to secure or create opportunities for meaningful work (Oliver, 2013). Therefore, students should be made aware of the capabilities required in the workplace and encouraged to actively integrate learning experience from their coursework with learning and achievements from other aspects of their lives. However, getting students to engage with graduate capabilities and think ahead about employment is a challenge. Deakin Hallmarks are an extra-curricular work-integrated assessment strategy designed to give students the opportunity to differentiate themselves to employers by recognising outstanding achievement through digital credentials. Here we report on the design principles and processes developed to ensure that they warrant meaningful achievement in the workplace; and encourage students to become aware of the capabilities they will require specific to their intended career.

Keywords: graduate capabilities, employability, work-integrated assessment, digital credentials, university-industry partnerships

Introduction

It is now widely accepted that universities have an obligation to develop graduate capabilities beyond discipline specific knowledge and skills (Green, Hammer, & Star, 2009; Su, 2014). Universities commonly articulate additional ‘generic’ or ‘transferable’ graduate learning outcomes that students are expected to develop over the duration of their degree. This more holistic approach is largely derived from a need to address graduate employability; a topic that has been the focus of discussion and numerous reports by governments, professional groups and academics over several decades (Reviews: Curtis & McKenzie, 2001; Tomlinson, 2012).

Yorke, (2006) defines employability as “a graduate’s achievements and his/her potential to obtain a ‘graduate job’”, distinguishing between employability (potential) and employment because employment is dependent on external factors, including labour market conditions. In recent years, competition between graduates has increased as a result of increased graduate unemployment (Callaghan, 2011; Graduate Careers Australia, 2013, 2014), and degrees are increasingly being seen as a prerequisite rather than as a differentiator (Brown, Hesketh, & Williams, 2003; Burning Glass Technologies, 2014; Tomlinson, 2008). Contemporary graduates need more than just good marks; they need to articulate and evidence their achievement and capabilities, and to understand their audience - what would an employer find convincing?

Here we report on an extra-curricular work-integrated assessment strategy designed to give students the capacity to differentiate themselves to employers by recognising outstanding achievement through digital credentials. In doing so, this initiative encourages students to become aware of the capabilities required to support self-directed employment in an industry sector. This initiative has identified a suite of principles that could guide future development of credentials developed specifically to address graduate employability.
Deakin Hallmarks

Deakin Hallmarks are non-credit-bearing university awards that warrant achievement in specific graduate capabilities with more detail than is possible through grades. Each Deakin Hallmark addresses one of Deakin’s institutional graduate learning outcomes and is associated with a specific degree which creates a context for achievement and focuses attention specifically on related employment opportunities. Deakin Hallmarks ask students to self-assess the capabilities that are a priority for their discipline.

Hallmarks are available to all students enrolled in the associated course and are awarded where students submit evidence demonstrating outstanding achievement. Courses must distinguish between the achievement embodied in the course learning outcomes and expected of every graduate, and the further level of achievement that characterises a Deakin Hallmark. Two foundational characteristics are most important to making Deakin Hallmarks a unique and meaningful way of warranting learning.

First, Hallmarks are developed and are conferred in partnership with industry and professional bodies. Each Deakin Hallmark is associated with criteria and standards that are developed in consultation with industry partners or professionals to ensure that they represent achievement that is meaningful in the workplace. To apply, students must submit evidence that addresses the criteria and meets the standard – similar to applying for a job. Their evidence is assessed by a panel of experts that includes both faculty and industry representatives.

The second foundational characteristic is the platform for award. Recipients of the award receive their digital credential using digital badging technologies. This methodology creates a share-able digital record that provides both the circumstances of the award and the evidence that justified it (Bowen & Thomas, 2014). The digital credential has equivalent authentication as other university credentials, such as degrees, with the added advantage of making the evidence of learning transparent. The digital credential can be shared publicly through social media and professional platforms such as LinkedIn (https://www.linkedin.com/), making the associated data (i.e. criteria, standards and evidence) directly available to external audiences. Information about the assessment panel and industry partners who endorse the award is also included in the digital credential to give the achievement greater credibility amongst employers in that industry or profession.

Six key principles for Deakin Hallmarks were developed to guide the design of individual awards and to establish a robust framework for quality assurance and enhancement. These foundational principles (detailed below) reflect alignment of the interests of students, employers and the university to promote graduate employability.

Principles

Deakin Hallmarks were developed iteratively by a small group of volunteer course directors drawn from across all Faculties and supported by University leaders in learning and teaching, governance and management. Development of the principles for Deakin Hallmarks guided implementation through University policy and procedures, and the ‘nuts and bolts’ of delivery to students, and management of assessment and award.

The consensus principles have been tested through implementation of Hallmark credentials in 2015-2016 associated with five disparate degrees in environmental science, psychology, accounting, business administration and arts management. The course directors for this diverse group of disciplines have explored different forms of evidence such as portfolio presentation, investigation of authentic case studies and authoring articles for industry publications. Hallmarks have been delivered to undergraduates, postgraduates and students enrolled online. Students were also involved in the initial development and implementation of Hallmarks to ensure that the awards and application process was made meaningful to them (Healey, Flint, & Harrington, 2014). The final consensus suite of principles illustrates factors to be considered in the construction of new employability credentials.
Principle 1: Hallmarks recognise outstanding achievement of specific Deakin graduate learning outcomes particularly valued in the workplace

Each Deakin Hallmark must assess and warrant outstanding achievement of a single graduate learning outcome. Deakin University specifies eight graduate learning outcomes that students demonstrate through successful completion of their degree:
1) Discipline specific knowledge and capabilities: appropriate to the level of study related to a discipline or profession;
2) Communication: using oral, written and interpersonal communication to inform, motivate and effect change;
3) Digital literacy: using technologies to find, use and disseminate information;
4) Critical thinking: evaluating information using critical and analytical thinking and judgement;
5) Problem solving: creating solutions to authentic (real world and ill-defined) problems;
6) Self-management: working and learning independently, and taking responsibility for personal actions;
7) Teamwork: working and learning with others from different disciplines and backgrounds;
8) Global citizenship: engaging ethically and productively in the professional context and with diverse communities and cultures in a global context.

Deakin Hallmarks are not awarded for discipline-specific knowledge and capabilities, for two reasons: 1) student achievement of discipline specific knowledge and capabilities are warranted through the conferral of a degree, and 2) all Deakin Hallmarks are contextualised to courses and require students to apply discipline specific knowledge. Course leaders are encouraged to create one or two Deakin Hallmarks for the graduate learning outcomes most prized by professionals in their field and must work with industry or professional partners to select the appropriate learning outcome and assessment criteria.

Selection of a target graduate learning outcome is illustrated by the Deakin Hallmark for the Bachelor of Environmental Science (Environmental Management and Sustainability). Consultation with the course advisory committee, including industry representatives, highlighted the crucial role of teamwork in the multi-disciplinary nature of environmental science. This choice was also supported by the disciplinary threshold learning outcomes for environmental science identified nationally (Phelan et al., 2015). Hence, the Deakin Hallmark for Teamwork in Environmental Science recognises outstanding achievement in teamwork beyond the standard required by the degree.

Principle 2: Hallmarks acknowledge achievement distinct from grades awarded for assessment tasks within the course

Achievement of a Deakin Hallmark has no bearing on assessment marks and grades in units of study. Each Hallmark sets criteria and standards that are qualitatively different from, but thematically related to, learning within the associated degree. This principle ensures that a Deakin Hallmark offers students the opportunity to distinguish themselves on a different basis than academic marks and grades which are not necessarily a good indicator of suitability for a specific industry position or entrepreneurial future (Tomlinson, 2008; Velasco, 2012). Hallmarks are available to all students within a course, are voluntary and associated workload is in addition to normal study. The objective is to makes these awards that any student, regardless of their grade average, can aspire to achieve.

Principle 3: Hallmarks are associated with a specific course or major offered by Deakin and reflect the learning of students during their enrolment in that course or major

Although Deakin Hallmarks are an extra-curricular opportunity, distinct from grades, they are associated with courses because graduate capabilities are most effectively contextualised and taught within a disciplinary context (Bath, Smith, Stein, & Swann, 2004; Oliver, 2011; Precision Consulting, 2007; Radloff et al., 2009). Deakin Hallmarks also require students to integrate achievement from outside the formal curriculum with learning from within their degree. Consistency in the icons and terminology used for learning outcomes in the degree and the Hallmark intentionally link both credentials and encourage students to review their learning holistically.
Principle 4: Hallmarks are developed at the discretion of the course director in partnership with relevant industry or professional groups

To be valuable and credible, the assessment criteria and standards associated with digital credentials must be meaningful to future employment or self-employment in associated industries; so employers and professional bodies are involved in both design and assessment. Engagement with external stakeholders requires additional time and resources but is a necessary part of the developmental process. Appropriate industry partners are identified by course directors and consulted about all aspects of the Hallmark design; from selection of the most valued graduate learning outcome, to development of the criteria and standards of achievement and the assessment task. Industry partners are also involved in the assessment of the award and are identified in the data embedded in the digital credential.

This principle embodies a commitment to ensure the relevance of Deakin Hallmarks. Partnerships between industry and universities are increasingly being sought to modernise the curriculum, improve the work-based skills and competencies of graduates, increase the flow of knowledge across sectors, and foster economic competitiveness (Edmondson, Valigra, Kenward, Hudson, & Belfield, 2012; Thune, 2011). Industry-university collaborations are often most productive where they are strategic and long-term (Edmondson et al., 2012). Industry partners for Deakin Hallmarks are usually also associated with the university in other capacities, for example via course advisory committees, work-integrated learning and accreditation. Deakin Hallmarks form part of the multi-faceted and deep relationships sought between the university and industry.

Principle 5: Hallmarks are awarded on the basis of holistic judgements about student achievement with reference to approved criteria, standards and evidence

Students need to develop an ability to make effective judgements about their own work to become effective learners during their degree and beyond graduation (Boud & Falchikov, 2007; Boud, Lawson, & Thompson, 2015). Course directors describe the criteria, standards of achievement, application process and time frame for assessment to students. It is then the responsibility of students to create and curate evidence that meets the Hallmark requirements with minimal guidance from the course teaching team. This assessment approach is intended to encourage a mind-set in which students take responsibility for collecting and articulating evidence of their own capabilities.

Principle 6: Hallmarks are awarded using digital badges which carry the insignia of the University, describe the basis for granting the Hallmark and can be shared publicly

The credibility of the Deakin Hallmark outside the University is crucial to its value. Credibility is derived from industry participation and from the reputation of the awarding institution, so both characteristics are embedded within the credential. The authority of the credential and consequential assurance of quality requires university governance arrangements that ensure institutional standards for award so the criteria and standards for each Hallmark are endorsed by relevant Faculty Board/s and approved by the Deputy Vice-Chancellor Education.

Deakin Hallmarks are awarded using digital credentials that bear the insignia of Deakin University, the icon and name of the graduate learning outcome (contextualised to the discipline or profession) and record details of the award including up to 125 words describing the award, the criteria for award, and the identities of the assessment panel who warrant the award. Award to an individual student also includes the name of the awardee and digital evidence used to support the award.

Students’ achievement of a Deakin Hallmark is also recorded on their statement of academic achievement at graduation. Although the profile of digital credentials have increased in recent years, they are still an emerging phenomenon in higher education (Oliver, 2016). The use of digital credentials to warrant student achievement offers a unique combination of digital accessibility and authentication, however, it was important to also link the digital credential to the universities official student records to ensure long-term security and credibility. Students involved in the development of the Deakin Hallmark concept saw this as an important indicator of the validity and prestige associated with the award.
Implications

The creation of Deakin Hallmarks has produced a suite of practical, learner-centred principles that are relevant to future credentials designed to address graduate employability. These principles recognize the value of four affordances of the award that can be generalised to broader application.

1. Combining in-course and extra-curricular learning by:
   a) aligning learning outcomes for degree programs and associated employability credentials,
   b) clear identification of the distinct criteria and standards for the added credential,
   c) criteria expressed as holistic judgments.

2. Relevance to future employment by:
   a) focusing on learning outcomes that are prized by associated industries,
   b) collaborating directly with industry to ensure relevance.

3. Acknowledging the potential of all students by:
   a) rewarding outstanding achievement that is not recognized by academic marks and grades,
   b) making the award available to all students regardless of grades.

4. Ensuring the credibility of the award by:
   a) rigorous institutional oversight
   b) publication of the criteria and standards of the award
   c) publication of evidence of achievement for individual students.

Collectively these principles create a novel way of recognizing student achievement. The conventional evidence of graduate achievement in a university degree is an academic transcript. These documents hold limited information and are often use language that is inaccessible to any audience outside the issuing institution. Relative achievement is represented by marks and grades, but these parameters have little relation to the world outside academia. In general, students are left to draw out their own connections between achievement during a degree and application to their future career. However, the award of a degree carries the credibility of the awarding institution and is often seen as a baseline indicator for employment.

Universities are beginning to value alternative indicators of achievement of graduate outcomes. In Australia, the introduction of the Australian Higher Education Graduate Statement (AHEGS) has created a nationally recognized format for universities to record achievements other than marks and grades. The AHEGS is an official statement that lists, for example, extra-curricular awards. It can be more informative than a transcript but it does not present the evidence that justified the award, nor does it involve the students in the presentation of their evidence.

E-portfolios have emerged as a digital means of accumulating and curating evidence for learners and may serve many purposes in learning and assessment (Watty & McKay, 2016). In particular, portfolios can be used to expose students to integrated and holistic learning experiences that enhance their employability through developing their capacity for reflection and self-assessment (Watty et al., 2016). However, they appear to be less useful in presenting evidence to employers, who may believe review of a portfolio is time-consuming or does not align with existing recruitment processes (Leece, 2005). Digital credentials have emerged as a way to combine the advantages of digital evidence in a summarized form with the authority of an institutional brand.

From a student perspective, employability is constructed through a range of learning activities as students move closer to the intended graduate learning outcomes. However, future employment requires more than academic achievement; employability includes awareness of employment and careers (Bridgstock, 2009). Deakin Hallmarks are an example of a new type of credential that prompts students to link achievement with careers.
References


Note: All published papers are refereed, having undergone a double-blind peer-review process.

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