

Short Stories: Innovative approaches to developing employability in our students

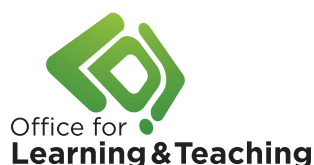
This research was supported by the Australian Government Office for Learning and Teaching as part of the Commissioned Project *"Developing graduate employability through partnerships with industry and professional associations"*



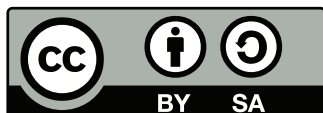
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Office for Learning and Teaching
Department of Education and Training
GPO Box 9880,
Location code N255EL10
Sydney NSW 2001

[<learningandteaching@education.gov.au>](mailto:learningandteaching@education.gov.au)

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This research is an outcome of the OLT Commissioned Project

Developing graduate employability through partnerships with industry and professional associations

Lead institution

RMIT University

Partner institutions

Monash University

University of Southern Queensland

Project leader

Associate Professor Margaret Jollands

Project team members

Ms Bronwyn Clarke, RMIT University

Associate Professor Danilla Grando, RMIT University

Associate Professor Margaret Hamilton, RMIT University

Associate Professor John Smith, RMIT University

Dr Sophia Xenos, RMIT University

Associate Professor Angela Carbone, Monash University

Professor Lorelle Burton, University of Southern Queensland

Research team members

Project officers

Ms Catherine Pocknee

Ms Sheila Thomas

Research assistant

Ms Megan Brodie

Foreword

by Associate Professor Margaret Jollands and Ms Catherine Pocknee

This collection of short stories about innovative approaches to developing employability in higher education students is a key outcome of the Office for Learning and Teaching Commissioned Project *Developing graduate employability through partnerships with industry and professional associations, 2014–2015*.

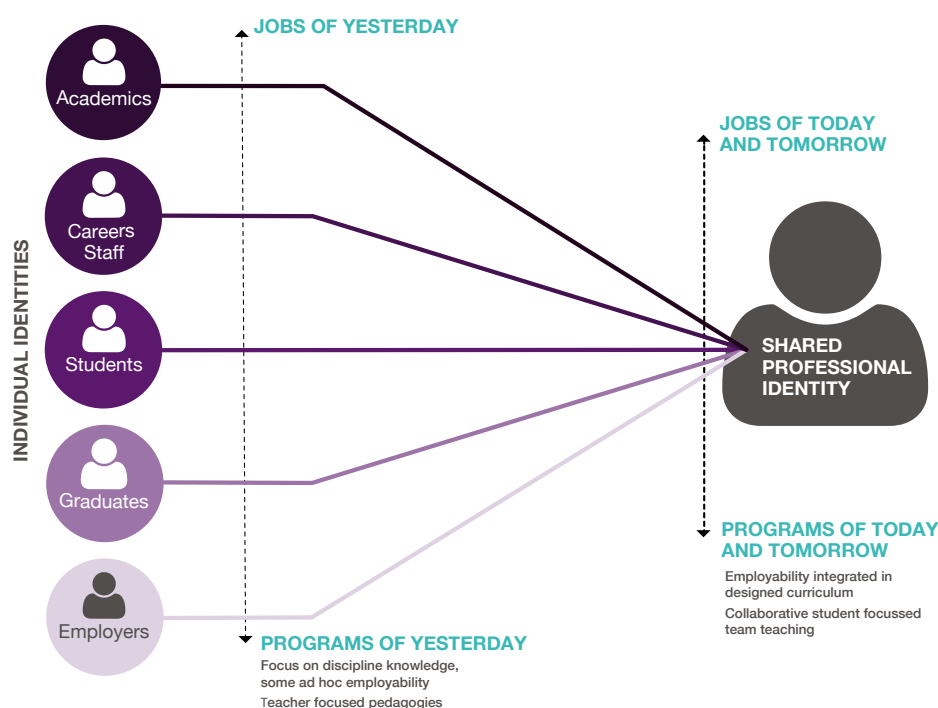
The aims of the project were:

1. to identify the key issues and challenges that influence graduate employability from the viewpoint of a wide range of stakeholders across a variety of disciplines
2. to identify the gap between industry expectations and student and academic perspectives of graduate employability
3. to build staff capacity to develop curriculum and learning affordances that promote student acquisition of employability skills, knowledge and attributes
4. to identify the key challenges for staff in developing curriculum for employability skills in students

The short stories were developed in response to one-to-one interviews conducted over the phone or in person, except for two authored by the participants (*Transition in, Transition out (TiTo): a student peer-mentoring model*, and *The potential of Open Badges in higher education*). Participants were selected from national and institution teaching award winners with a focus on employability, industry experts, university careers staff, and via the recommendations of project or research team members. Interviews were recorded and the stories were each developed by a team member. Each participant was given the opportunity to review their short story before publication. QSR NVivo was used to analyse the interview notes and short stories thematically and data was then mapped against the CareerEDGE model of employability¹. We are very grateful to our short story participants, without whom there would be no stories.

A key challenge identified for academics is to find suitable models of practice that develop employability skills in students. This booklet provides a collection of such models that are supported by evidence of impact and effectiveness. The aim of the booklet is to inform curriculum renewal and promote students' acquisition of employability skills, knowledge and attributes.

¹ L Dacre Pool & P Sewell, 'The key to employability: developing a practical model of graduate employability', *Education + Training*, vol. 49, no. 4, 2007, pp. 277–289.



How to use this book

This booklet contains 16 short stories by leading teachers, careers staff and industry consultants about how they develop employability in students. Each story identifies why they were interested in developing a particular aspect of employability, what they and their students do, the resources involved and why they think it is effective.

The book is laid out sequentially according to the five categories of employability identified in the CareerEDGE framework²:

- career development planning
- experience
- degree subject knowledge, understanding and skills
- generic skills
- emotional intelligence

The five categories are colour-coded on both the Contents page and each short story page for easy reference. Many stories cover more than one category of the framework, so are coded with two or more colours. Check the Contents page to find the categories and stories that most interest you.

If you aren't sure where to start, try these steps:

1. Rate your unit, course or program on the Quiz overleaf to determine to what extent you are already developing employability skills in your students.
Note: If you score all 5s, do contact us about featuring in the next edition of our short stories!
2. Map your unit on the spider diagram to find category strengths and weaknesses.
3. Look for stories that address the category or categories you would like to improve, and read them to find some ideas you can try in your classes.

We are sure you will be inspired by the stories behind these innovations in the field of employability, and hope you have success in enhancing learning outcomes for your students by introducing or adapting some of these approaches.

Other resources you may find useful are:

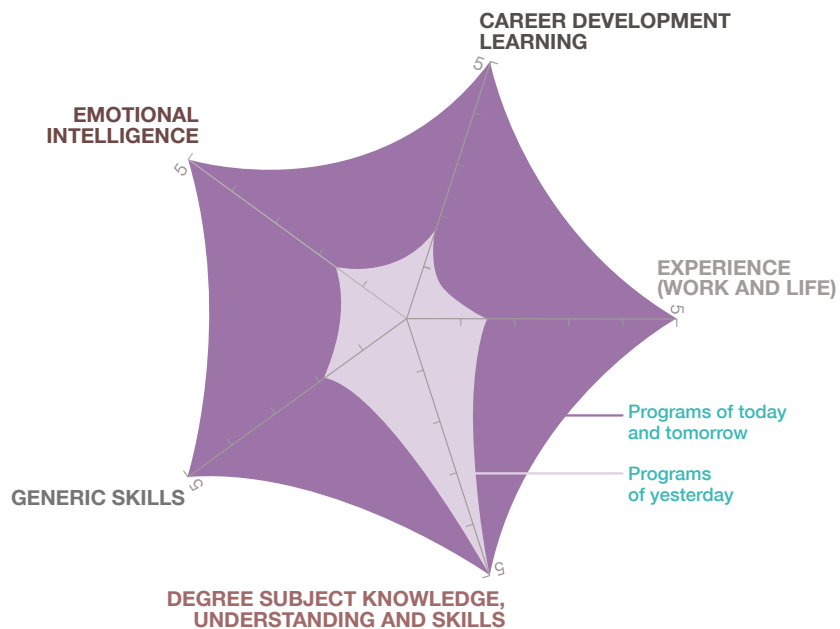
- Bond University's Higher Education Graduate Employability website, www.graduateemployability.com/rp/bond/
- Curtin University's The TILE Approach website, <http://thetileapproach.ning.com/>
- the United Kingdom's Higher Education Academy employability resources, www.heacademy.ac.uk/workstreams-research/themes/employability

² L Dacre Pool & P Sewell, 'The key to employability: developing a practical model of graduate employability', *Education + Training*, vol. 49, no. 4, 2007, pp. 277–289.

Quiz

Assess your program's approach to developing employability in students.

AREA	To what extent:	LOW HIGH				
CAREER DEVELOPMENT LEARNING	Is developing a professional identity a part of every course (subject) (learnt and assessed)?	1	2	3	4	5
EXPERIENCE (WORK AND LIFE)	Does every graduate have at least 12 weeks/400 hours of relevant work experience?	1	2	3	4	5
DEGREE SUBJECT KNOWLEDGE, UNDERSTANDING AND SKILLS	Does every graduate have a sound set of degree subject knowledge, skills and attitudes (learnt and assessed)?	1	2	3	4	5
GENERIC SKILLS	Does every graduate have a well-developed set of generic skills (demonstrated and assessed)?	1	2	3	4	5
EMOTIONAL INTELLIGENCE	Does every graduate have a well-developed emotional intelligence (demonstrated and assessed)?	1	2	3	4	5



Contents

The CareerEDGE framework is used in this publication to indicate the categories of employability that are addressed by each short story. The categories of the framework are (Dacre Pool and Sewell 2007):

CAREER DEVELOPMENT LEARNING
EXPERIENCE (WORK AND LIFE)
DEGREE SUBJECT KNOWLEDGE, UNDERSTANDING AND SKILLS
GENERIC SKILLS
EMOTIONAL INTELLIGENCE

CAREER DEVELOPMENT LEARNING

EXPERIENCE (WORK AND LIFE)

DEGREE SUBJECT KNOWLEDGE, UNDERSTANDING AND SKILLS

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Beyond third year

Dr Gavin Beccaria

For some courses, such as psychology, students have the option to exit after three years, take on studies in other disciplines or complete postgraduate qualifications for registration. Dr Gavin Beccaria talks about helping students set realistic career goals and building pathways towards achieving them.

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“Viva Voce”

Dr Gavin Beccaria

Developing authentic learning activities that truly replicate the day-to-day challenges and tensions of the workplace is often difficult and demanding. Dr Gavin Beccaria tells us how he taps into the unique skills of theatre students to build authentic clinical scenarios for assessing postgraduate students undertaking their first patient interview and clinical diagnosis.

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Designing interdisciplinary curriculum to promote leadership in a complex world

Professor James Arvanitakis

James Arvanitakis outlines a subject he recently designed that intentionally brings academics, industry representatives, professional staff, alumni and current students together from different disciplines to co-construct curriculum for a subject called “Leadership in a Complex World”. For James, interdisciplinary practice is a key skill to address in promoting employability because students will need to work in the future with all manner of people in all sorts of ways.

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Transition in, Transition out (TiTo): A student peer-mentoring model

Associate Professor Andrea Chester
Professor Lorelle Burton
Dr Sophia Xenos

While many psychology students successfully enrol in postgraduate study and fulfil the requirements for registration as psychologists, a large proportion exits university after the completion of their undergraduate degree. TiTo is an educational initiative that looks at increasing work-integrated learning within the curriculum, in an effort to enhance the future employability of students and support them as they transition into and beyond university.

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Embedding employability skills into a three-year undergraduate psychology program**Ms Annissa O'Shea**

When the University of Southern Queensland (USQ) built their new campus at Springfield, Annissa O'Shea and fellow staff were given the opportunity to develop a new undergraduate psychology degree that allowed students to experience a graduated transition to industry over the life of their three-year program. Annissa talks about the six courses (subjects) embedded within the program and how each course supports the student's transition to the workplace.

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The New England Award**Ms Alicia Zikan**

Alicia Zikan talks about the remarkable success of The New England Award, where students are given the opportunity to participate in, reflect on and document their involvement in a variety of learning experiences that develop life skills and graduate attributes. Research has shown that students who participate in the program are seven times less likely to drop out from their studies (retention) than those who don't.

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Building a career pathway in media communications through self-awareness, baseline skills and professional networking
Ms Rachel Wilson

Rachel Wilson talks about a capstone course for media and communications students. Students are responsible from whoa to go for organising a themed seminar series where alumni talk about their careers; they interview industry professionals and develop a career portfolio. This helps graduates forge careers in an industry where "who you know" can be as important as "what you know".

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Forget employability: Let's focus on being work ready by developing the individual**Professor Dawn Bennett**

Employability is more than 'getting a job': making career decisions depends on disciplinary and industry knowledge. Dawn Bennett talks about how she gets students to self-manage their career and professional learning using TILE Approach tools.

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Building lifelong employability through career identity and creative enterprise development in first year
Dr Ruth Bridgstock

Dr Ruth Bridgstock talks about two core units from the Bachelor of Creative Industries at Queensland University of Technology (QUT). The first unit promotes student research into the diverse range of employment possibilities in the creative industries to promote career identity, and the second establishes multi-disciplinary creative teams to identify and plan a creative project which is feasible and can be executed within 12 weeks with a notional budget of \$2000.

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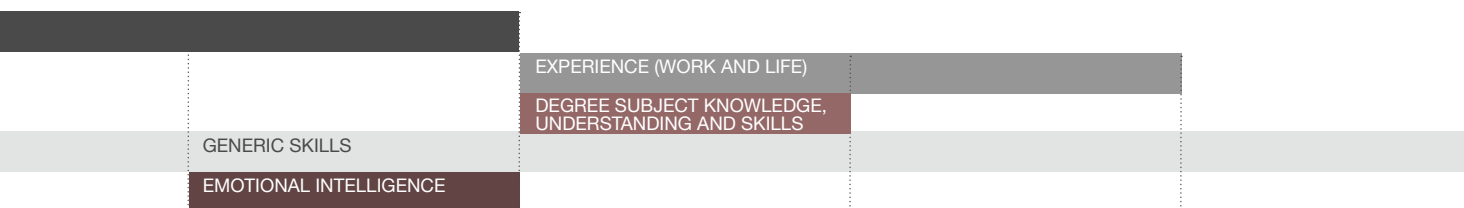
Career pathways for perpetual growth**Mr Mark Healy**

Mark Healy tells us that a successful career path is not just about landing a job; it's about identifying an individual professional pathway forward through life. He talks about his experience working with students to help them to recognise the range of opportunities open to them, so they can build a successful future.

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Engineering communication**Dr Philip MacKinnon**

Dr Philip MacKinnon has been researching graduate employability for a number of years. He talks about his current experiences working with final-year engineering students on their problem-solving and communication skills. He explains how developing graduates' employability is not just about developing professional skills; it's about scaffolding and supporting them while they critically reflect on those skills from a professional perspective.



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Preparing students for the jobs of the future

Professor James Arvanitakis

James Arvanitakis tells his students he doesn't know what jobs are going to be out there in five years' or 10 years' time. What he does know is that developing skills like adaptability, creativity, creative thinking, critical thinking and self-awareness, which can be used in a variety of contexts, will help them adapt and thrive under changing conditions. He focuses on some simple classroom strategies to promote a wide range of skills that underpin the workplace of the future.

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Capstone projects: Building self-awareness through multidisciplinary teams

Dr Julie Foreman

Julie Foreman provides an in-depth look at how capstone projects can take students from an individual stance to a collective team-based approach while developing a range of employability skills and abilities such as collaboration, judgement, negotiation skills, consultation and self-awareness.

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The Engineering Pavilion: A living laboratory

Associate Professor Nicoleta Maynard

The Engineering Pavilion is the Hub of Engineering at Curtin University. The Pavilion is technologically connected and brings together an array of telemetry systems that collect, store, sort, and analyse both live and historical information about its power consumption, solar power generation, heated water usage, air conditioning operations, building resonance and vibration. It's also the meeting place where engineering students, staff, student clubs and industry members can meet and engage in a variety of authentic learning experiences that promote industry engagement and the development of a wide range of employability skills.

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The potential of Open Badges in higher education

Ms Kate Coleman

Kate Coleman's work in Mozilla's Open Badges project has opened up new ways of recognising skills and learning through an open, stackable framework that provides students and academics with an opportunity to recognise and record the more detailed aspects of learning. Kate explains how in the future badging skills, experiences and knowledge can supplement—possibly even replace—traditional assessment records such as marks and grades.

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Curing plagiarism while promoting judgement and professional integrity

Professor James Arvanitakis

James Arvanitakis uses plagiarism as a theme to develop professional integrity. He challenges students to critically reflect on a highly personalised situation in their life to promote good judgement and a sense of integrity—key skills for employability.

Beyond third year



Dr Gavin Beccaria

University of Southern Queensland
School of Psychology and Counselling

Psychology

Keywords

Career options, reflection, professional pathways, informed choice.

For some courses, such as psychology, students have the option to exit after three years, take on studies in other disciplines or complete postgraduate qualifications for registration. Dr Gavin Beccaria talks about helping students set realistic career goals and build pathways towards achieving them.

What does graduate employability mean to you?

For me graduate employability is about graduates being able to find employment within their field and in an area of their choosing. To achieve this they need to have a full understanding of the day-to-day practice of their profession.

When working with undergraduates I actually talk quite openly about the career paths that are open to them and tell them what my career path has been (via industry). I try to instil a level of optimism and confidence so they can make informed and realistic choices. And yes, put it out there on the table that some undergraduates won't actually go on to become registered psychologists, and they can actually choose to exit after third year.

Psychology is a highly competitive environment and students need to know how to navigate it. Often there is a little bit of fear involved because they are worried they won't get into the honours or masters programs (prerequisite for clinical registration), but that isn't the end of the world because there are many pathways open to them to achieve their goals. They may not get what they want exactly when they want it, but as students they can identify realistic career goals and build pathways towards achieving them.

How do you help them achieve this?

A few years ago when I was teaching in the undergraduate course I established a webinar called Beyond Third Year because there was so much misinformation out there. Many students didn't really understand when they could register as a psychologist or how they could use their undergraduate qualifications; some even thought that they needed to complete a PhD to register as a clinical psychologist. Quite often they had been told the correct information but they hadn't actually absorbed it or related it to their own, individual pathway forward.

I've taught at both undergraduate and postgraduate level and it's not just about running a session on potential jobs, it's more about getting them to really engage with their profession and think deeply about where they fit into that field and where they want to fit in.

One of the most rewarding and often hidden benefits for students is making the most of their placements and actively seeking out experiences while on placement that strengthen their employability skills. In Beyond Third Year I try to provide them with the space and time to critically reflect on their individual goals, as well as the opportunities available to them to gain further experience in their chosen areas. It's only when they start to critically reflect on what they each personally want to achieve in their career that they can start to build a professional identity and pathway.

Often students who don't have the grade point average to continue their studies in psychology move to another field of study; education is a popular pathway and so is business and human resources. Many exit at third year to work in the Department of Child Safety or Corrections. There are lots of pathways open to them and Beyond Third Year is about choosing the right one for them.

Does it work?

I think that it does. When they are out on placement students are being offered ongoing work—many of our students are employed within the field while still completing their studies.

“Viva Voce”



Dr Gavin Beccaria

University of Southern Queensland
School of Psychology and Counselling

Psychology

Keywords

*Authentic learning, clinical scenarios,
observation, reporting, deductive-inductive
reasoning.*

Developing authentic learning activities that truly replicate the day-to-day challenges and tensions of the workplace is often difficult and demanding. Dr Gavin Beccaria tells us how he taps into the unique skills of theatre students to build authentic clinical scenarios for assessing postgraduate students undertaking their first patient interview and clinical diagnosis.

What aspects of employability are important to you?

I actually worked in industry for 15 years before moving into academia and while working in industry I noticed that students didn't know how to integrate the theory they had learnt at university into their daily practice. They didn't actually understand the science of psychology, and they weren't always good at simply observing and reporting exactly what they saw. Students are very good at deductive reasoning but not so good at inductive reasoning.

When we plan curriculum we usually start with a set of beautifully laid out learning objectives that have a strong theoretical focus. We tell students that if such and such happens, then do this; if such and such happens, then do that. Learning is beautifully scaffolded and always proves the theory. However, when you see a patient or client in industry they don't come to you with a 'list' of problems for you to sort out. At postgraduate level students need to look at the pool of information and then draw out what is important from that; they need to be able to use deductive and inductive reasoning simultaneously.

The analogy I often use is that deductive reasoning is like having a recipe for soup and then making the soup. Inductive reasoning is like having the soup ladled out in front of you and then identifying the ingredients—a far more complex situation.

What activities do you do with students?

At the postgraduate level I use "Viva Voce" which is Latin for "life". I work with a group of actors (theatre students) and provide them scenarios to play out in an interview context. I then have a day of testing where students come in and each conduct a 50-minute interview with a client (theatre student). Once it's completed they have to walk straight into a room where they provide me and another clinical psychologist with a:

- full history,
- risk assessment,
- formulation,
- mental status evaluation, and
- provisional treatment plan.

It's a genuine, authentic workplace scenario where they have to provide an oral defence of the clinical diagnosis they make. It must be noted, though, that a lot of preparatory work has been done with students for them to be able to perform in an assessment environment like that.

All of those scenarios (interviews) are taped, with permission from the actors and the students, and are then rolled into the undergraduate third-year assignment. The undergraduates don't actually see the postgraduates' diagnoses; at the third-year level I just want students to report on what they see. I want them to start developing a working knowledge.

What feedback do you get from students?

Theatre students generally enjoy the experience and I think it's quite a challenge for them to portray someone with a mental health disorder. I actually did some research on the Oscars a few years ago and found that about 50 per cent of the best actor awards (male and female) since the mid-70s have gone to actors portraying someone with a mental illness.

The strongest feedback I've had from postgrad students is absolute terror; it's a very challenging piece of assessment for them. They need to be very clear on the day and they need to do it well; the pass mark is set very high. They need to get it right.

The third-year students are harder to gauge because there is so many of them. Collectively they tend to do very well at it, but I don't think it's because it's an easy assessment. I think it's because they are highly engaged with it. The feedback from that group indicates that anyway.

Has it improved students' employability skills?

I think it has. When they are out on placement industry is now telling us that students are becoming much better at presenting a case, and this is a great confidence boost for the students. Of course active demonstration of these skills often leads to offers of employment too. We are having success at a number of levels and this is borne out by a 100 per cent employability rate for our graduates. It's a great mark of success, so I think we're on the right track.

Transition In, Transition Out (TiTo): A student peer-mentoring model



**Associate Professor
Andrea Chester**

RMIT University
Design & Social Context
Portfolio

Psychology



Professor Lorelle Burton

University of Southern
Queensland
School of Psychology
and Counselling

Psychology



Dr Sophia Xenos

RMIT University
School of Health Sciences

Psychology

While many psychology students successfully enrol in postgraduate study and fulfil the requirements for registration as psychologists, a large proportion exits university after the completion of their undergraduate degree. TiTo is an educational initiative that looks at increasing work-integrated learning within the curriculum, in an effort to enhance the future employability of students and support them as they transition into and beyond university.

Keywords

*Transition, peer mentoring, university,
employability, work-readiness.*

Why do you do it?

While many psychology students successfully enrol in postgraduate study and fulfil the requirements for registration as a psychologist, a larger proportion exits university after the completion of their undergraduate degree. The current highly competitive graduate employment market leads to low employment outcomes for this cohort. In addition, Australian data has revealed attrition rates of up to 30% for first-year students (Krause, 2005).

Students should be provided with opportunities to reflect and articulate their skills and experiences throughout their undergraduate degree and be seen as lifelong learners. Transition in, Transition out (TiTo) is one such educational initiative developed to increase work-integrated learning, enhance the future employability of students and support students as they transition into and beyond university. TiTo was designed to provide a framework for simultaneous, mutual support and development for both first-year and graduating students. The program was founded on Lizzio's (2012) notion of the student lifecycle, which describes a series of transitions students undergo over time as they enter, move through and graduate from university. It is described in more detail in our recent publications (e.g. Chester, Xenos & Burton 2012).

What do you do?

First-year students are concerned with developing their "student identity", while third-year (final-year) students are more focused on negotiating their "graduate and professional identity". TiTo enables third-year peer mentors to develop their professional capabilities by supporting first-year students to develop academic study skills.

TiTo is embedded into a third-year capstone course, providing final-year students, regardless of their grade point average, with the option to volunteer as a mentor to a first-year student. This consolidates subject knowledge, builds

professional capabilities and experience, demonstrates achievement of graduate attributes, and importantly, through a series of self-reflective exercises, helps the final-year student to reflect on their own career aspirations and professional identity.

Mentors receive an intensive training package, supplemented by weekly classes to prepare, debrief, and share ideas. In a blended learning (online) context, mentors received ongoing support throughout the program via weekly online real-time sessions facilitated by their third-year lecturer. Mentors work with five to six first-year students for eight weeks of the semester. Mentors attend the second hour of tutorials and work with the students while the tutors are still present.

Students should be provided with opportunities to reflect and articulate their skills and experiences throughout their undergraduate degree and be seen as lifelong learners.

Who is involved?

All first-year students are provided with a mentor. Some third-year students volunteer to be mentors. First-year tutors attend mentor training and meet their group of mentors during the semester to provide timely feedback based on observations in class and a final written reference.

The first-year course examiner provides guidance and advice to the third-year mentors and has general access to all mentor group discussions.

What are the issues and challenges?

The commencement of university often involves the student's removal from the secure routine of secondary school, greater demands for independence and self-initiative, a dislocation from previously established friendship groups and family, greater financial pressure, and new academic pressures and responsibilities including the handling of assignments and greater academic freedom.

The challenges for final-year undergraduate students preparing to transition out of university are less well understood, despite considerable work being conducted on graduate attributes and work-integrated learning as preparation for such transition.

Does it work?

The evaluation of TiTo has demonstrated the effectiveness of the model both for face-to-face delivery at RMIT University and in blended learning contexts at USQ. First-year mentees and third-year mentors at both universities have rated their experience of mentoring as positive, with the majority of students in each group noting the experience had supported their work on assessment tasks and encouraged a sense of belonging.

Visit the TiTo website:

<http://emedia.rmit.edu.au/tito/>

References

- Krause, K. (2005). Serious thoughts about dropping out in first year: Trends, patterns and implications for higher education. *Studies in Learning, Evaluation, Innovation and Development*, 2, 55-67.
- Lizzio, A. (2012). *The student lifecycle: An integrative framework for guiding practice*. Brisbane, Australia: Griffith University.
- Chester, A., Xenos, S., & Burton, L. (2012). Peer mentoring: An embedded model to support first year psychology students. In S. McCarthy, K. L. Dickson, J. Cranney, A. Trapp, & V. Karandashev (Eds.), *Teaching psychology around the world: Volume 3* (pp. 133-150). Newcastle upon Tyne, UK: Cambridge Scholars Publishing.

Designing interdisciplinary curriculum to promote leadership in a complex world



Professor James Arvanitakis
University of Western Sydney
Institute for Culture and Society
Humanities

Keywords

Interdisciplinary practice, professional relationships, co-construction, leadership.

James Arvanitakis outlines a subject he recently designed that intentionally brings academics, industry representatives, professional staff, alumni and current students together from different disciplines to co-construct curriculum for a subject called “Leadership in a Complex World”. For James, interdisciplinary practice is a key skill to address in promoting employability because students will need to work in the future with all manner of people in all sorts of ways.

Why do you do it?

Interdisciplinary practice is another key skill to address for employability because students need to work with all manner of people in all sorts of ways.

Traditionally, as academics, we are really bad at aligning our work with industry. We have never been taught to do it, and let's face it, it's never really been our main priority. It's also very hard to do and often challenges academics' notions of academic orthodoxy or purity.

Curriculum design should be more about the process, not just about outcomes. We need to design into our courses processes and experiences where students can learn these critical factors and complex tasks and abilities. One way of achieving this is to open up your curriculum design to others and learn from them, as well as share with them.

I don't want to produce a bunch of arrogant kids with a sense of entitlement. You can do that anywhere. I want to produce a different type of leader. I want to be working with kids to produce a different type of leadership.

What do you do?

Recently I designed a subject that intentionally brought together academics, industry representatives, professional staff, alumni and current students from different disciplines to co-construct the curriculum for a subject called "Leadership in a Complex World". What I've done is focus on interdisciplinary engagement to look at leadership and what that means today. We are currently trialling the subject at the University of Western Sydney (UWS).

The philosophy behind the subject is that leadership is about relationships and not about hierarchy. You can walk into an organisation to take up the most junior role but it's the relationships you build with those around you that make you a leader or not.

Who is involved?

For the first stage of this project we pulled together about 12 multidisciplinary academics: a number of professional staff; professionals in industries ranging from the armed services to human rights organisations and everything in between; some recent alumni and longer-term alumni; and current students (eight). The students each had to submit a paragraph outlining why they wanted to participate. We were overwhelmed with responses. In total there were 28 people involved in the design process.

This year (2014) we are doing a trial with 10 students, but next year we will open it up to others and we expect it will be fairly scalable. It will be run as an elective.

How do you do it?

Well, the first thing I did was ask all the academics from the different disciplines, the professional staff, industry professionals, alumni and current students to attend a think-tank day which was professionally facilitated.

People were asked to come to the table as individuals, not as their positions or titles. We did this to promote a culture of "no prior prejudice". It was strictly first names only. We also tried to balance the group so no one group dominated or overwhelmed the other. The only thing they were told at the think-tank day was to consider leadership in terms of relationships, not hierarchy. The day was designed to just stimulate ideas. We debated what should be included in the curriculum and how it should be delivered. The day was really demanding but really productive.

We then took those ideas away and created a first draft to send out to an even broader group of people who couldn't be there on the day, asking them for their feedback. We included all the feedback and developed a second draft which was sent out again for review. After all that feedback and critical reflection we were at the point where we could come up with a design.

The design itself is about “interdisciplinarity”. We ended up with four workshops over the semester and each workshop runs for four hours. Each workshop is facilitated from a multidisciplinary position. I’ve already run the first workshop on leadership with someone from medicine and someone from business. Students who participate come from discipline areas such as medical science, nursing, law, business, engineering and humanities. It’s about working in cross-disciplinary teams and considering how students can promote their ideas in that type of environment and be challenged.

Being able to listen, work and perform in these sorts of multidisciplinary environments is critical to the development of future professional leaders.

One of the issues that came up in the first workshop was commercial surrogacy; that issue from a legal perspective and a medical perspective is very, very different and students have to cope with the challenge of that. Someone may say they have no problem with a womb for rent but a humanities student may say, “...Hang onwhat about the ethics of that?” That kind of discussion from that interdisciplinary perspective is closely related to employability.

The second workshop on creativity is run by a biologist, a sport scientist and a lawyer and it addresses how we ‘create’ under stress. Students are put under stress and asked to be creative. They then review and analyse a number of research studies on creative output that have

“stress” built in as a control factor. The findings tend to show that creative output is more robust under stressful conditions—a real challenge for students and for academics.

The third workshop is on communications and is run by a media/arts specialist and a social scientist. The final workshop on crisis/conflict is run by a political scientist, a lawyer and a medical scientist. Each team works together to build a module on the interdisciplinary understanding of leadership for a group of students from various disciplines to discuss different perspectives of leadership.

Being able to listen, work and perform in these sorts of multidisciplinary environments is critical to the development of future professional leaders.

Does it work?

Well, one of the law students told me he was sitting in a workshop and one of the academics put a whole lot of data up on the board about molecules et cetera and he thought, “Oh no!” Then by the end of the workshop he was saying, “I want to study science!” So yes, I think it works.

There are limitations, though. During the trial we found that some students who wanted to do the course couldn’t because they didn’t have the option of electives within their course. They had to write submissions on why they wanted to do the course and say they were going to give up this subject over here so they could do this subject over there. The paperwork was a bit of a nightmare, so we really have to work on those sorts of things. It’s a real challenge but I think we can do it.

Embedding employability skills into a three year undergraduate psychology program



Ms Annissa O'Shea

University of Southern Queensland
School of Psychology and Counselling

Psychology

Keywords

Self-awareness, self-understanding, employability, professionalism, skills, experience, employment, confidence.

When the University of Southern Queensland (USQ) built their new campus at Springfield, Annissa O'Shea and fellow staff were given the opportunity to develop a new undergraduate psychology degree that allowed students to experience a graduated transition to industry over the life of their three-year program. Annissa talks about the six courses (subjects) embedded within the program and how each course supports the student's transition to the workplace.

Why do you do it?

When the University of Southern Queensland (USQ) built their new campus at Springfield, staff were given the opportunity to develop a new undergraduate psychology degree. The team who moved down from Toowoomba sat down during the planning stage and focused on a few basic questions: “What do psychology students need to learn throughout their program to be effective in their profession?” and “What do students who are coming out with a three-year degree in psychology need to know, understand and do to get a job in the field?”

The bulk of students who graduate in psychology at Springfield leave with a three-year degree, not a four-year degree (Hons). Only a small percentage of our students go on to become psychologists. So we brainstormed the key questions and decided there needed to be space in the curriculum for the development of employability skills, as well as a greater understanding of the scientist/practitioner model that underpins psychology. To operate effectively, psychologists need to understand the science behind what they are doing and be able to select appropriate tools, techniques and approaches based on the science they have been taught during their course. This is fundamental to what we do as practitioners.

We wanted our students to adopt a scientific, research-based approach to their future work. To achieve this, we needed to bring scientific research into a practice context for them. Students in our program are given the opportunity to build their professional and employability skills alongside their research skills. One-third of each of the professional practice courses/subjects we offer is focused on scientific research skills.

I’m an organisational psychologist and my background is in careers, so I was employed at an early stage to develop the six courses (subjects) in the undergraduate program where those skills would be developed and put into practice.

What do you do?

The six courses run over the first three years of the program, with two courses running each year. It’s run as

a scaffolded, developmental curriculum where students have the opportunity to develop skills and then apply their knowledge in practice. Students undertake the program as a sequence; so rather than just being dumped out in an industry placement without any preparation, they experience a graduated transition to industry over the three years. The program is seen as the backbone of the degree and is integrated both vertically and horizontally.

The first course (subject) is about career development and expectation setting, and this is where students gain an understanding of their profession, what employability means, and what employment is. The second course is an introduction to therapies; they are given an overview of four or five therapies and then provided with an opportunity to practise them on each other. The third is an introduction to diagnosis, where students learn to administer a range of psychological tests on a variety of staff members. The fourth course focuses on team-based client problem-solving coupled with working as a research assistant to an academic, a counsellor in a school, a child protection officer or perhaps someone from the police force.

During the third year, students undertake two placements which involve 200 hours in total of external experience in industry. The first concentrates on skill development and the second on workplace exploration. We have a wide variety of placement opportunities including Lifeline, DrugARM, Queensland Police recruitment, needle exchange programs, Blue Care and dementia care—there are dozens to choose from.

Who is involved?

At Springfield our enrolment numbers really vary from one year to the next; it can be 80 students one year and 30 the next. This is partially due to our campus being new and in a growth phase. Our quota for the course is 50 and we have gone well over that number, so notionally we would be dealing with about 150 students each year, spread over the three-year program.

We have a terrific group of eight people in the teaching team for the program and they teach/supervise in a variety different areas. For example, our Associate Professor runs the ethics

component of the course in first year and having this type of expertise really adds depth to the program. Many of our academics not only teach in the program but volunteer to supervise students in their placement or provide them with RA (research assistant) work; it's very collegial and constructive.

What are the issues and challenges?

About 70% of our student cohort is "first in family" and the bulk of them don't have professional role models. Psychology sounds nice when you are choosing a career but the level of responsibility you take on as a psychologist is significant and can be quite daunting. Students really need to understand the complexity surrounding a profession in psychology and that's why we introduce career development on the first day of the first semester of the first year, so students can make informed decisions about their future.

Another challenge is selecting the right placement or industry partner for each student, as they naturally mature at different rates; you need to match them up so they achieve the optimum experience for themselves while still offering an appropriate service for the clients. This all has to be done while monitoring their individual and group progress over the life of the course. Students need to go out to industry feeling confident, but not over-confident; they need to be realistic and eager, but still have plenty of skills to offer industry when they get there.

First-year students don't always have the maturity or a wide range of skills, so we develop them through shadowing, volunteer work, workplace scenarios and so forth. In second year we concentrate on bringing industry into the university, with groups working on problems identified by the industry partner. This is great for teaching project management and time management skills in realistic contexts. By third year students do have a lot to offer industry, as well as the confidence and theoretical background to do meaningful work; by then they're ready for an independent placement in industry.

In the future I'm interested in embedding VET level diplomas and certificates into the placements, ideally into

all six courses to promote dual accreditation. Students who graduate with a three-year degree in psychology don't go on to work as psychologists. They tend to go out to work in industry and organisations doing other types of associated work. I'm interested in developing their employability outcomes and hopefully dual accreditation coupled with the in-depth skills they acquired during their undergraduate psychology degree will position them at the forefront of that particular market. I think there is a lot of potential for future employment in youth services, disability, community support and family services, particularly if the Disability Insurance Scheme is introduced.

Does it work?

Yes it works, and I can say that because 50% of my students last year (2013) received offers of employment, with 40% of them landing the job by half-way through their third year. Although I haven't measured it statistically, about 25% of them received employment offers prior to the introduction of the program.

The feedback from students is that they love it. They are still a little gob-smacked when they meet students that don't do our course and are forced to realise that not all psychology programs include these experiences for students.

As for employers, over the years I have tried a variety of different strategies for identifying employers for research projects and placements and have eventually settled on having a few really good, reliable partners who provide "in depth" learning experiences for students. I find it's a win-win situation; it's good for the students and it's good for the employer or host. Our list of employers is consistent over the years so we must be doing something right—they keep coming back.

Employers tell us that they would offer employment to about 80% of our students if they could (i.e. if a job was available). From the employer perspective, skills-wise, they are happiest with students who provide evidence to support their practice. For example, when they undertake a program evaluation, survey or training they can provide supporting evidence that their work has made a difference to either the employer or the employee. This is a really positive tangible outcome for an organisation.

The New England Award



Ms Alicia Zikan

University of New England (UNE)
Office for Learning & Teaching

Careers

Keywords

Volunteering, community, personal growth, teamwork, communication skills, lifelong learning, confidence, social responsibility.



Alicia Zikan talks about the remarkable success of The New England Award, where students are given the opportunity to participate in, reflect on and document their involvement in a variety of learning experiences that develop life skills and graduate attributes. Research has shown that students who participate in the program are seven times less likely to drop out from their studies (retention) than those who don't.

Why do you do it?

The underlying philosophy surrounding the New England Award (NEA) is that well-grounded graduates need to attain not only academic achievement but also real world experience; and they need to demonstrate personal growth over the life of their course.

The NEA started in 2003 with a small grant to investigate how a range of disparate activities being undertaken by students across the university could be drawn together under a collaborative framework. At the time we had a variety of activities being supervised by a variety of stakeholders—internal and external partners, professional bodies, businesses, industries, residential colleges, schools and disciplines—and we needed a unifying umbrella.

In 2004–2005 we ran a pilot program with “on campus” students (20% of cohort), which was evaluated and found to be very successful. The program was then expanded in 2008–2009 to include our distance students (80% of cohort). We now offer the program to all students. We have also established an ongoing, rolling evaluation process, particularly with students and employers, so we can continuously improve the program to meet their needs as they evolve.

There's a lot of information on the website if people would like to explore further: www.une.edu.au/current-students/graduation/new-england-award

How does it work?

The NEA has an online registration process. Once students are registered they are given access to the NEA's online system, where they do their activity planning and record their progress in an individualised portfolio. As part of the registration process students are added to the online management system (Moodle) which we use to communicate with students. This also provides a virtual environment where participants in the program can connect with each other.

Registered students use the NEA structure or framework to plan future activities. They start by listing their current activities (e.g. volunteering) and then identify future activities to develop their personal and professional skills. We provide lots of guidance and feedback at this stage through a series of guiding questions. We are keen to support students to personalise the program. They need to reflect deeply to identify their personal strengths and weaknesses, so they can choose appropriate activities.

Students can choose from three categories of activities:

- extra-curricular learning and training, which usually involves the acquisition of a formal certificate that can be add to a CV;
- professional development, which can include paid work or unpaid work, placement or committee membership; and
- contribution to the University and your community, which usually involves volunteering.

*They need to reflect deeply
to identify their personal
strengths and weaknesses,
so they can choose
appropriate activities.*

Across these three categories each student needs to accumulate 1,000 points. Each activity is allocated a certain number of points, reflecting the complexity and difficulty of the activity being undertaken and the personal or professional growth gained by the student from that activity. A limit of 750 points applies for each category, and students must acquire points across all three categories. We cap the number of points that a student can obtain from any one organisation or activity

in a year. The cap is 200 points for a community contribution activity, or 100 points for an extra-curricular learning and training or a professional development activity. We find the caps promote participation in a wide spread of activities, allowing time for personal reflection and development throughout the program.

All the activities the students select need to align with the UNE graduate attributes and employability skills. It's not just about volunteering or undertaking an activity, it's about how that experience can improve an individual's graduate attributes and employability skills. While the program is achievable, it's not easy. It takes commitment and time on the student's part—really it's the journey that counts.

Who is involved?

We currently have 2,100 students enrolled in the NEA program, with 539 of those registered this year (2014).

Most of the work and facilitation is my responsibility, but we do have a few recent graduates completing PhDs who help out on a casual basis. They have all been through the program themselves and are fantastic at supporting students in the online environment and providing advice and mentoring when they're needed. Fortunately, the NEA system is set up to allow students to monitor their own progress; it's all about self-directed learning.

We have awarded 387 New England Awards so far and are planning changes to the final evaluation requirement (a reflective journal of 5,000 words) which we think will improve the completion rate. From later this year students will have a second option: providing an up-to-date CV and a two-page covering letter identifying the skills and attributes they have acquired, and then participating in a 10-minute interview.

What do students do?

Students have to self-manage and take ownership of their development within the program. They're not completely alone though. At regular times throughout the teaching period, I'll put an announcement in Moodle telling them it's time to register their activity, or reminding them they have to do such and such within the next few weeks. There is support and guidance when required, but self-directed learning is at the heart of the program.

Students need to identify how each activity will build their graduate attributes and promote their future employability.

Activities vary widely and the points allocated to each activity are negotiated. The student prepares a brief about each planned activity which outlines what they want to do, how they are going to do it and what they will learn from it. I then evaluate the brief and the supporting documentation and we negotiate the amount of points. That negotiation process gives us an opportunity to engage with the student on a one-to-one basis, provide timely feedback and guidance, and make sure the activities are appropriate and rewarding for them. Students need to identify how each activity will build their graduate attributes and promote their future employability. We also check each activity against the Fair Work Act to make sure that the placement or activity isn't simply "unpaid work".

Typically, if a student volunteers for an hour a week for a year at Lifeline, we would consider that year worth 200 points. If they spent a day door-knocking for the Cancer Council, then that would probably be worth 20 points. All the activities require validated evidence to be registered in the system. It's not just about hours. Some of our Senior Residential Fellows living in one of our colleges (an unpaid position) are on call 24/7, but that's considered a 200-point activity too.

In the case of professional development, once a student has completed 35 hours of paid work, then we would recognise that (75 points, once per year, capped at four years). Unpaid work is recognised too, as long as it has been pre-approved. Many of our students work already and study part-time. If they undertake courses through their workplaces (project management, first aid, OH&S), they can claim them in the extra-curricular learning and training category.

The maximum number of points a student can achieve for any one community contribution activity in a year (200 points) is higher than for an extra-curricular learning and training or a professional development activity (100 points). We've deliberately done this in our program because we place a greater value on activities that are considered selfless. In the NEA a contribution to community is highly valued.

Does it work?

Employers tell us that a degree will get you an interview, but once a graduate lands an interview the employer wants to hear about everything else that graduate has done. If they have a portfolio which doesn't just have personal reflections and a CV in it, but also contains evidence of a wide range of activities confirmed by a supervising employer, then that's a really powerful tool for the graduate to work with.

We do a lot of survey work and evaluation to make sure the program is flexible and adaptable and meets the ongoing needs of students, and we've identified enormous benefits for those who participate in the program, even if they don't take out the award. Recent analysis shows that those who participate in the NEA program are seven times less likely to drop out of their studies (higher retention) than non-participating students.

Another sign of success is the obvious development we see in individual students. Recently an international graduate came in to see me and she was just brimming with confidence. In contrast, when she first arrived she was extremely shy, had very little English, and was very hesitant about participating in the program. We simply asked her to join in a few activities like welcoming new students at orientation and mentoring—she even gave the formal vote of thanks at her graduation ceremony. The result? She has developed an appreciation of her own abilities, and the confidence to extend herself further.

Building a career pathway in media communications through self-awareness, baseline skills and professional networking



Dr Rachel Wilson

RMIT University

School of Media and Communications

Media

Keywords

Critical reflection, integrity, authenticity, professional community, career pathway, confidence, partnerships.

Rachel Wilson talks about a capstone course for media and communications students. Students are responsible from whoa to go for organising a themed seminar series where alumni talk about their careers; they interview industry professionals and develop a career portfolio. This helps graduates forge careers in an industry where “who you know” can be as important as “what you know”.

Why do you do it?

In our professions graduates don't generally get jobs from seek.com. A few do, particularly those wanting to enter the corporate or public sectors, but usually media graduates get work through their networks. Most of the work is freelance in the first few years and graduates often have to maintain part-time positions while they build their networks and move forward to forge a career. That's just how our industry operates. There is evidence to suggest that within five years of graduating not many creative and performing arts students will be working directly in the area in which they studied.

To address these sorts of issues we've developed a final-year capstone program that identifies and builds on baseline skills and the networking capacity needed to forge a career path in our field. Throughout their program, and particularly during the capstone course, we ask students to think about why they are interested in a career in this area. They need to be clear about who they are as creative individuals and how they can contribute to the creative landscape. It's important that students begin to understand what motivates them inherently and what they feel they can contribute over time.

This course was designed in order for the students to address these questions directly, because self-knowledge is required for sustainable long-term work in this industry. Often they see "networking" as a bit of a dirty word and it makes them uncomfortable, but you need to learn how to build a professional network if you want to work in the area.

I believe that professional partnerships are built through action, by doing things together; it's not about sitting and having coffee together. When you've worked together or organised an event together, that's where professional partnerships and meaningful long-term networks and contacts are born and trust is built.

What do you do?

In our capstone course the students are asked to complete three main tasks. The first centres around creating the opportunities to network with industry partners, as ours is an industry where "who you know" can be as important as "what you know". We believe the ability to network is a skill set that can be learnt. This is achieved through the hosting of a six-week industry seminars series that students are completely responsible for organising, running and documenting.

Students are given a set of parameters at the beginning of the semester. These include a three-hour timeslot in an open space, gifts for the presenters and guidelines on how to organise such an event. Students are first asked to identify a topic or theme they're particularly interested in. As a class we spend a couple of weeks devising the topics or themes, which must represent a diverse range of industry areas. This tends to require significant negotiation between groups and we employ a variety of techniques—such as voting—to achieve agreement. It's important that the themes are owned and decided by the group as a whole. Once the students have self-selected their groups (about 20 students per theme), we then form smaller groups responsible for areas of logistics for the series: selecting and inviting guests, promoting the seminar across the university community, and organising the administrative side of the event (writing and following up emails, developing briefing notes and thank you letters, etc.). There's usually a group of students who volunteer to act as the "management committee" and they devise an overall theme, design posters, build the website and manage the social media communication on behalf of the course.

Each year a number of the themes prove very popular with students from other courses such as journalism and creative writing. It's important that our students understand how to identify and promote to these groups, so they can build their

networks and contacts for the future. There are many skills students are asked to exercise within this activity: working as a team, publicising the event, identifying a potential audience, building their network of contacts. Students are also required to document the process using their media production skills, such as filming it all and editing the results down to a highlights package for our archive. However, the most important aspect is recruiting the industry guests, briefing them and securing their participation.

Generally the students ask each guest to discuss their own personal career and career trajectory. Guests usually explain how they got to where they are and how they've been able to maintain and build a career over a period of time. Most of the speakers are mid-career practitioners. They're able to reflect on ups and downs like the ones students are likely to experience over the life of their careers.

The second assessable activity students are required to complete is a personal networking report. Students must interview at least four industry professionals, as high-calibre as they can access. Before approaching anyone each student researches their field of interest by completing background work and historical research on the profession, as well as identifying the key players in the field. International students are encouraged to interview people from their home country via Skype or email. We push the students beyond their comfort zone to build their professional courage and confidence. After students have completed their interviews they each write and submit a report synthesising what they have learnt and identifying whether they are still interested in working in the area. We reinforce the notion that even if they get to the end of their report and decide they don't want to be a film director or publicist as they thought, that's a brilliant outcome—they may have just saved five years of their career.

The third assessable activity is the development of an online career portfolio. While they're researching and interviewing their industry professionals, students are also pulling together their resources and work examples, writing CVs (supported by the careers unit) and posting them online. The most important aspect of this task is that students must showcase the media production skills they've learnt throughout the degree. Again, they're required to research and identify the types of career portfolios most suitable to their particular career aspirations.

It's up to individual students to decide what genre of portfolio they need, but all must contain clear contact details, a printable CV, examples of the student's work and a statement about their career aspirations. The task is self-directed, as there is a range of pathways for our graduates into this profession.

Who is involved?

The subject is taught by a team of people drawn from a variety of disciplines in the media communications area. We have approximately 80 students graduating each year and we try and maintain a teaching ratio of one to 25, so there are three to four staff. Typically we have two sessional staff on the teaching team who are practitioners (digital, music, film, or radio) to ensure currency.

We deliberately try to engage people who are nurturing, because students are often very anxious at this stage of their program and need a lot of support. They are just a few weeks out from graduation and confidence-building, nurturing and trying to get that "career pathway" information out to them is challenging.

The range and type of guests we encourage students to invite to the seminar series is also important. Guests often talk about the transient path that's motivated them

and provide practical examples and insightful stories about how they've achieved their goals over time. Quite often I sit in the seminars and hear guests explain exactly what we've been saying to the students for years, but when they hear it from someone they admire and aspire to be like—well, that's gold.

It's important to add that our central careers unit also provides support and runs a number of workshops on CV writing, addressing selection criteria, presenting experience and answering interview questions.

Where do you see the benefits for students?

The role I play is one of the inquisitor asking, “Why, why, why?” If they want to be a film director then I want them to be able to tell me why ... I ask them what stories they want to tell, and how they can contribute to the field in uniquely different ways to everyone else. Over the years the personal networking report's proven to be one of the most successful assessments from an employability perspective. Many students use it as the stepping stone into their first job. Because students complete research into the people they interview, they tend to have quite meaningful conversations about each interviewee's body of work, what motivates them, what they were trying to say in a particular story. This is often flattering to interviewees and can lead to offers of internships and paid work. A number of our graduates report that they've used this technique to gain employment in the field—it not only establishes rapport with a prospective employer but can also establish a mentor relationship based on respect. We find that industry people want to help students.

One of the key aspects of the seminar series is that students are required to attend four or five others' seminars and peer grade each other's work. Peer assessment evaluation forms are devised amongst the group at the

beginning of the semester, and when the audience arrives at each seminar there's a peer evaluation form on the seats. At the end of each session staff collect and collate the results, providing feedback to the group. For example, “Your peers gave you 70 per cent because you weren't that organised here, or you asked silly questions there”. It's very authentic because when they graduate it's their fellow professionals who'll judge them in the future.

*From the very first day,
right at orientation,
we talk to them and
say one of the primary
reasons you are at the
university is about the
network you'll build over
the life of the program.*

The value for the students comes from understanding and seeing how to articulate the skills and knowledge they've developed throughout the degree. Through the seminar series they're exposed to a wide range of career trajectories and a variety of approaches to building professional identities. The personal networking report task asks them to apply this information to their own ambitions. In doing these tasks they're required to think hard about how they wish to be perceived professionally in the future, and to think longer-term about the contributions they wish to make to the world.

Does it work?

We know it works because the students and graduates tell us it works!

We work hard to establish and maintain robust links with alumni: we keep in contact through Facebook and personal interaction. We spend quite a bit of time providing feedback on the personal networking reports, so it's often quite an intimate experience and they tend to talk to us quite openly about the program and their challenges and experiences. At the end of the degree we send a series of emails asking them to keep in contact and to sign up to the graduate Facebook group, which has over 500 members and is often a lively place for exchanging news and job opportunities.

We also know the capstone course works because so many of our alumni are prepared to give back. They provide opportunities on a daily basis for our graduates: internships, networking, passing on information about upcoming work or funding opportunities. They often volunteer to be the conduit for students transitioning into their particular stream of the profession. They are part of the community and intrinsically know about and understand the skill set RMIT media students have.

Forget employability: Let's focus on being work ready by developing the individual



Professor Dawn Bennett

Curtin University

Humanities Research and Graduate Studies

Humanities

Keywords

*Professional development, workshops,
personal growth, teamwork, professional
identity.*

Employability is more than “getting a job”: making career decisions depends on disciplinary and industry knowledge. Dawn Bennett talks about how she gets students to self-manage their career and professional learning using TILE Approach tools.

Why do you do it?

Employability is such a buzz word! There are so many different definitions, but I believe it's really part of developing the individual. As student engagement and motivation is directly impacted by the perceived relevance of their learning to their future study or work, it's crucial that students start to develop their professional identity early in their programs. Students should asking, "Why am I doing this course?"

Employability is most often talked about in terms of "getting a job". This is the functional aspect of employability, and it is only one side of the coin. What is it that enables graduates to find and sustain work, to make decisions about their careers, to be inquisitive, and to speak out when they have ideas? These are the most important and least discussed aspects of employability. They relate to building disciplinary knowledge and awareness of the industries in which knowledge is applied, and gaining the confidence and experience to apply one's self within and beyond those contexts. For many graduates, who transition into sectors where full-time employment with a single employer is rare, employability also means being able to self-manage one's career and professional learning.

There are many different aspects to developing employability. One of the crucial aspects for students is evidencing their capacities as they progress through their programs. Another is recognising that identity is not a destination; rather it is a process of becoming that lasts a lifetime. It is important to think across all these elements: to think about employability on a very broad scale.

I hope that higher education careers services professionals will one day be able to work with academics as part of the core team within each program. At the moment, the challenge is that few academics have the time, expertise or resources to develop employability with students.

One of the many initiatives seeking to tackle this problem is the TILE Approach, which brings together good practice resources for the sector.

You can find out more about the TILE Approach here:
<http://thetileapproach.ning.com/>

*Another is recognising
that identity is not a
destination; rather it is a
process of becoming that
lasts a lifetime.*

What do you do?

I have synthesised, trialled and refined good practice resources that help students make meaning, develop agency and grow their capacities, all on their way to developing identity as students and professionals. The resources are available on the TILE website.

The TILE tools come from academics in many different disciplines and for the most part they have been adapted to suit a generic audience. The tools are simple in appearance and implementation, packaged in such a way that anyone can use them without needing to undertake further research or reading.

I often present on this at conferences or run professional development for educators, particularly if there are teams of staff or tutors involved in a course where employability

and self-awareness is a goal. Otherwise, educators just pick up the resources and run with them. Individually the tools take anything from 10 minutes to part of a class over a semester. They slot into existing curricula with no need for professional learning, additional resources or extra curricular time.

Who is involved?

The TILE Approach arose from an ALTC Fellowship awarded in 2010. Now used by academics in 21 countries, the tools and strategies focus on the four elements of Teaching, Identity, Learning and Employability.

The tools work with all disciplines and year levels and have recently been used with graduate research students and academic staff.

What do the students do?

It depends on the tool. My favourite activity is a two-hour workshop that challenges students to work out why they chose their program, what they want out of it and what the current course will contribute to their goals. It is often the first time students have been asked to consider what they are doing at university, and the first time they have been asked to consider what their careers might look like. The workshop develops self- and career-awareness and also gently prompts students to consider what they need to do in order to succeed. I also include an aspect of development such as effective teamwork. This aspect is negotiated with each lecturer. The workshop includes individual self-reflection, class discussion, teamwork and lots of fun. Lecturers report that many students find the workshop transformative and begin to ask many more questions about the relevance and intent of each unit of learning. This is great news because students need to take control of the learning they undertake, rather than waiting for it to be presented.

TILE tools include a skills audit, a lifestyle quiz, a strengths and weaknesses matrix, time management exercises, networking games, activities to create an elevator pitch and research topics on careers and career biographies. There are 35 tools at the moment (2015) and we are currently working on making them interactive.

Does it work?

Absolutely! In 2014, over 3,000 students participated in TILE tools in institutions around the world. We see students ask more questions about careers and they do more independent research to find out more. They are ready to open the career conversation, do their research and share it with their colleagues. They're more engaged with anything that involves the profession: career services, guest lecturers and site visits for example. TILE also has a big impact on their levels of confidence, their ability to work in teams and their ability to talk with people from industry. I've found this to be especially true for international students.

An increasing amount of research is now being undertaken with the tools to ascertain their impact and efficacy. Many of the papers are hosted on Research Gate so that others can find them. The tools and associated resources are also included on a new graduate employability website, which was the result of a 2015 Commissioned project for the Australian Government Office for Learning and Teaching. www.graduateemployability.curtin.edu.au

The project report can be found here: www.olt.gov.au/project-how-universities-can-best-support-students-develop-generic-skills-enacting-strategies-gradua

Building lifelong employability through career identity and creative enterprise development in first year



Dr Ruth Bridgstock
Queensland University of Technology
Creative Industries Faculty
Humanities

Keywords
Career development, creative enterprise development, creative arts.

Dr Ruth Bridgstock talks about two core units from the Bachelor of Creative Industries at Queensland University of Technology (QUT). The first unit promotes student research into the diverse range of employment possibilities in the creative industries to promote career identity, and the second establishes multi-disciplinary creative teams to identify and plan a creative project which is feasible and can be executed within 12 weeks with a notional budget of \$2000.

Why do you do it?

The impetus comes from creative workforce research that indicates that creative arts courses have the poorest graduate outcomes of all disciplines. Our research also shows that enterprising creative graduates with adaptable career identities are in fact highly employable. A key issue that we found in doing career tracking research is that it can take two years or more to become established in a creative career.

We wanted to shorten this period of identity change and transition to the workforce, and one of the ways to do this was by starting career development activities and career identity development in first semester of first year, at the same time as building student identity.

First-year students often come into an interdisciplinary creative industries course and don't know what they want to do (diffuse career identity) or they're very committed to one career path (foreclosed career identity). Neither of those states is optimal for either engagement with the course or career development thereafter.

Graduates also need enterprise skills, as creative careers depend on continual creation and re-creation of different networks of collaborators. Enterprise is about opportunity identification—the ability to find an opportunity to add value, and to then make the most of that opportunity by gathering together resources and ideas and collaborators.

What did you develop?

We have developed a series of eight core units in the Bachelor of Creative Industries (BCI) at QUT—two each in first, second and third year (one per semester). Students study the core units alongside their disciplinary majors or minors. At QUT one unit is typically 12 credit points (CP) and each semester has 48 CP.

In the Career Identity Development unit, we use an adaptation of the DOTS Model of Career Development

(Law and Watts 2003). We iterate through the model multiple times so students return to their career self-understandings again and again through a process of career re-visioning. The idea is not to encourage foreclosure on a career identity, but rather—through systematic scaffolded research and reflection—to embrace an “opening out” of opportunities.

In the Creative Enterprise Development unit, we commence by exploring creative enterprise theory, how to recognise opportunities in patterns of resources, risk management, resilience strategies, innovation processes, stakeholder management, creative collaboration and working in creative teams. The students apply this theory to analyse pre-existing enterprise case studies, and then draw upon the theory to build their own collaborative project ideas.

All of the teaching team contributed to the development of ideas for the enterprise case studies. We use a collaborative and distributed model of curriculum development. Recently a sub-group of tutors developed several new case studies. Now there are 15 case studies, which are online in rich and text media formats, comprising interviews with project leaders, video demonstrations, and text-based analyses and resources, available through our library subject guide for the unit. We also developed supporting resources on how to conduct effective case study analysis.

Who is involved?

Each core unit has around 700 enrolments, so I have a large teaching team. I have 16 tutors who are all creative practitioners as well, and a lecturer who delivers the material at our other campus. I have a head tutor who works on day-to-day management of the units and staff professional development. We have academic support advisors in the library who work as needed one-on-one or in small groups with students who need academic skills support. Guest lectures are given by alumni who have successful enterprising careers. Industry representatives attend and provide feedback on the student project pitches at the end of the semester.

We build alumni input into the units as well. We have guest lectures and online vignettes from graduates. The graduates reflect on their careers and give students advice around course development and career strategies, how to network in the creative industries, and the skills they'll need.

The Careers and Employment Office is involved in the units as well. The careers staff run a "careers café": workshops where students learn more about career options and career-building strategies.

What do the students do?

Unit 1, Career Identity Development

Our aim is to build an adaptable and flexible career identity. We talk about "flow", career passions, what led students to the course. The students develop some reflective capability.

Students conduct research into the possibilities in industry, such as the industry trends, where the jobs are, the types and modes of work that align with their interests that are emerging in the 21st century.

The students do a research project into careers and industries of interest. Through that research project they tend to identify themselves that having too narrow a focus (identity foreclosure) is going to be limiting.

The project assessment has three components:

- a research component about industry opportunities in disciplines of interest, and kinds of career development strategies important to those disciplines;
- a visionary component, which melds their reflective work on why they are interested in those particular industries and occupations with the research; and
- a planning component about what students are going to do to advance their careers from that point, which includes formal study, co-curricular activities and career-building activities (e.g. finding a mentor, engaging in work experience).

Students report a sense of empowerment and transformational learning: "I have a much better idea now about what I want to do in my career."

Unit 2 Foundational Creative Enterprise Development

The creative industries depend on combinations and re-combinations of project networks. Practitioners have to be entrepreneurial and proactive, and will often also be self-employed, at least to some extent. They need to find collaborators, come up with ideas and be innovative. Creative enterprise relates to the ability to recognise opportunities in industry, make the most of those opportunities to add creative value and find an audience for your work.

In the first half of the unit, the students analyse a case study of a creative entrepreneurial project. We give them a range of 15 projects associated with different disciplines to choose from. They analyse according to "enterprise success factors"—creative entrepreneurship theory.

In the second half of the unit, the students form multidisciplinary creative teams and they go through a creative ideation process to come up with an idea for a creative project themselves. In terms of scope, the project has to be a feasible one that can be executed within 12 weeks with \$2,000 of seeding funds, and must draw on the

creative enterprise theory “success factors”. The summative piece of assessment is a written project proposal and a team oral pitch which we do “Dragon’s Den” style—the student teams pitch the project idea to industry representatives. This assessment is highly authentic and experiential, and very popular with students.

Does it work?

Students report a sense of empowerment and transformational learning: “I have a much better idea now about what I want to do in my career.”

We’ve also observed increased engagement of students in their discipline studies, because they have a sense of why they’re in those majors or minors. Overall we have reduced attrition rate from first year, with increased intra-program transfers. Students tend to shift to another major or another course rather than dropping out entirely.

We’ve found that first-year students enrolled in the units are far more likely to engage in career-building behaviours early than previously—approaching industry about work experience and mentoring, commencing e-portfolios and blogs, and starting their own small enterprises.

We also run surveys on course commitment and career identity. We administer the first survey in week three of first year, and we do it again at the end of semester, in a pre- and post-test model (and again in second and third years). This pre- and post-test evaluation shows that students develop more adaptive, flexible career identities, and are more likely to intend to engage in enterprise behaviour having studied the units. We then develop these knowledge sets, skills and attitudes further in second and third year.

References

Bridgstock R S (2011) Skills for creative industries graduate success. *Education and Training*, 53(1), pp. 9-26.

Bridgstock R S, Thomas A, Lyons K, Carr L & Zelenko O (2012) Putting the cart before the horse? Driving student engagement through first year career identity development in a large multidisciplinary creative industries cohort. Retrieved from <http://eprints.qut.edu.au/52633/>

Law B & Watts A G (2003) The DOTS analysis: original version. Retrieved from www.hihohiho.com/memory/cafdots.pdf

Career pathways for perpetual growth



Mr Mark Healy
Consultant
Graduate Coach
Engineering

Keywords

Self-reflection, critical reflection, judgement, networking, self-awareness, professional identity, career pathway, adaptability.

Mark Healy tells us that a successful career path is not just about landing a job; it's about identifying an individual professional pathway forward through life. He talks about his experience working with students to help them to recognise the range of opportunities open to them, so they can build a successful future.

What does graduate employability mean to you?

People often say at 50, “I wish I knew at 20 what I know now”. By 50 they’ve sorted themselves out, they know their strengths and weaknesses, they know where they stand in life and they know what they enjoy. Improving graduates’ employability is about supporting students to gain these insights quickly so they can plan a successful professional future.

Graduates often have aspirations to be project managers, project directors or maintenance managers, but the pathways to achieve these goals will be very different for each individual. Graduates need to start by identifying their personal strengths and talents; once they identify these their self-confidence will grow. If they are creative, for example, they need to combine that talent with the academic skills they’ve learnt at university; incorporated with a good attitude they’ve got a solid foundation to move forward. It’s not just about landing a job; it’s about identifying an individual professional pathway forward. There will be many twists and turns along the way, and you learn from these, but a flexible strategy for moving forward is the key to a successful and happy career path.

How does that work for a graduate looking for their first job?

What I try to encourage students to do is recognise the range of options that are open to them. It’s not about one job or one company, it’s about the range of opportunities available. If the first option doesn’t work out then you try another pathway. While you’re working on that pathway you gain knowledge and skills that will take you to your eventual goal. I tell kids, “You can work for NASA, you really can, but it’s really about the pathway or journey you build to achieve that goal.”

Students need to begin by researching the companies they’re interested in, and identifying what those companies actually do on a day-to-day basis. It might be building pipelines, for example. I get them to go on to YouTube and find a video of a big crane carrying in the big pipes for the line. Then I ask them to answer a few basic questions.

“Can you see yourself standing there directing that sort of work? Would you enjoy it?” If the answer is, “No, not really...” then I get them to start identifying what will give them a buzz. They need to understand what they’ll be doing on a daily basis so they can make informed choices about their future. If they don’t gain these insights now, they could be sitting there for the next 10 years doing something they don’t really like, and unfortunately a lot of people do exactly that.

I tell kids, “Take your time, don’t be in a big rush. Life will keep going no matter what you decide, but you need to make informed choices based on good research then move forward. If it doesn’t work out do more research, get more work experience, and learn new things that will take you in the direction you want to go in. Find out what suits you. Build your career options and make every post a winner. Jettison all the stuff that is unnecessary for you to go through. Identify what you have to offer the world, both professionally and personally. When you get to that crucial interview you’ll be able to speak with passion, and demonstrate your commitment and understanding of your chosen area.”

How do you engage students?

Everyone wants to feel unique and capable, and I start with the assumption that they are. When you’re trying to empower students you need to build their confidence and self-esteem and help them recognise their own unique qualities. They need to know who they are and what they want. Mind you, you need to be practical too. Often students will come in saying, “I want to be a draftsman”; when I ask them why they say it’s because that’s all they know. That’s not a good enough validation for a career choice. They have to start with a wide range of options and then zero in from there. Start big and end up focused. The pathway needs to be unique to them, but still deliberate and planned.

It’s about validating their experiences and starting from there. It’s like planting a seed. Once it’s planted it will grow, and grow really quickly, if nurtured, nourished and supported.

Only about one per cent of students are really proactive; the great majority, the masses, aren’t. Most come to me

because they can't get a job; they've been applying online and simply can't get a job. I tell them, "Stop that—go back to the fundamentals and ask yourselves those key critical questions and work from there."

What do students do?

Each student has to identify the companies they'd like to target. They may start with 30 but eventually they need to hone in on two or three companies that would suit them. They achieve this by evaluating each company against their personalised requirements, and they better have sound reasons for their selections because you can bet I'll be asking them why they made that particular choice. I expect them to be able to explain or speak about their decision in detail. Students achieve this by looking at the marketplace and examining it. They need to identify the type of work a company's doing, its values and its corporate direction. Is it small or large? Does it have a well-articulated strategic direction? Does it have leaders in the field working for it? Is it entrepreneurial or does it pay well? Is the work predominantly local or offshore? Would that suit me? Does that company match up with my criteria? Then I need to work one to one with the students to validate and interpret their findings. Keep asking, "Why, why, why? Why did you decide that? Why is that better for you?" Help them to understand themselves better, identify what they'd enjoy doing in life and how they could get there.

Once the companies are identified then the student needs to concentrate on networking their way into those companies. Only 15 per cent of jobs are advertised; the rest are by word of mouth. The aim is to give students the inside running on the jobs that aren't advertised. They need to ask themselves who they know at that company. Does Mum or Dad know someone? Who did Uncle Bruce work with on that job five years ago? Then they need to make contact with the person they've identified, meet up with them if possible, have a coffee or visit their office and move on from there. They need to ask each contact they meet for two or three further contacts. They have to be focused on working towards that key person with the job. Hopefully the people they meet on the way will go on to be great professional contacts into the future; people like to be

asked for advice and guidance. These contacts aren't just stepping stones—they're authentic and real, and help to build that professional identity and confidence needed to move forward.

Students adopt a staged approach. The first stage is about critical reflection, the second stage is about organisational charts and finding a way in to those people, and the third stage is about making contacts and learning to deal with rejection as well as with good results. Graduates may not get a job straight away but once they make a contact they are "on the inside", so to speak. If they get to the point of meeting someone face-to-face they're halfway there. When you meet someone face-to-face the goalposts change; a relationship starts to build. If a person says they don't have a job at that moment but they'd like you to send them a résumé then that's a success, because they wouldn't ask if they didn't feel a spark and feel there was a possibility in the future. They want to see if you persevere and keep trying to break into the field. They want to see if what you say is authentic or just a soft line of patter.

Graduates then need to follow up their contacts on a regular basis, every three weeks or so, just a brief follow up to let the contacts know they're still interested and committed. I tell them, "Don't leave it six or 12 months because that's not a relationship; in 12 months' time the spark will be gone."

Graduates need to be aware that them being too passionate can often be overwhelming for an employer. They need to be a little deferential when meeting with contacts and definitely not be too cocky. They need to begin by building a rapport with the contact, to learn to ask questions and listen. Take some notes and refer back to them. They need to remember that employers are looking for someone who will fit into their company and be easy to work with. They are not actually looking for a wunderkind.

How do you know it works?

Yes, it does work. I have placed many students from RMIT, Melbourne, Monash, and University of the Sunshine Coast since 2013 using this approach.

Engineering communication



Dr Philip MacKinnon

Australian Council for Education
Research (ACER) Higher Education

Biotechnology, Science & Engineering

Keywords

*Report writing, problem identification,
problem solving, critical reflection,
team work, critique, feedback.*

Dr Philip MacKinnon has been researching graduate employability for a number of years. He talks about his current experiences working with final-year engineering students on their problem-solving and communication skills. He explains how developing graduates' employability is not just about developing professional skills; it's about scaffolding and supporting them while they critically reflect on those skills from a professional perspective.

How do you view graduate employability?

I've been interested in graduate employability for a number of years and I've spent considerable time researching in the field. While I was working at Monash a few years ago I was responsible for developing their undergraduate biotechnology program, where we specifically looked at strategies for embedding graduate employability into the curriculum.

From my personal research I know that exposure to industry is the single biggest factor in improving graduate employability, and while this is ideally done in the workplace, there is much that can be done in a classroom setting.

How do you develop graduate employability in your classroom?

I currently lead a final year subject called "Engineering practice and communication" at Melbourne University, in which the students are asked to do a team project. As part of the subject they are asked to solve an engineering problem, but in doing so they have to examine the context surrounding the problem. Students are usually pretty good at problem-solving but I've found they're not always good at actually identifying a problem, defining it, then developing strategies to address it. I think it's because the problems they routinely solve in undergraduate courses are usually predefined for them.

In my subject I try to take them back and examine the issues from a contextualised perspective, because developing graduates in a course like this is not just about developing professional skills—it's about scaffolding or supporting them while they critically reflect on those skills from a professional perspective.

I feel that using an iterative approach to improvement helps reduce the complexity of an ill-defined problem. I use Kolb's feedback loop, but it's more than just giving feedback; you

have to address attitude as well and consider the outcomes you get from having a good attitude. I've adopted an iterative assessment of the team project throughout the subject, so new work builds on previous work. Students are given feedback, either by peers or by staff, and they're expected to use this to further develop the project, better define their problem and improve the solutions they find. This requires both a willingness to accept criticism and an ability to judge that criticism and determine the best course of action. Growth is incremental and the process of development is equally as important as the outcome. In week one I show the students the Kolb learning cycle, but I also show them a timeline of the telephone, from Bell to the smartphone. Development is not just an endless cycle; it moves forward as well.

What do the students do?

Most of the subject is run as a team project, but we build our teams over a few weeks. In the first week I explicitly address "employment" and what "skills" are required within the field of engineering. Students then have to pair off, identify two jobs that are currently available to engineering graduates and distil what skills are required. These skills are then presented to the larger group in week two, when they are discussed and used as a basis for a letter of application.

In week three the students do mock interviews, which are based on the letters of application they've prepared. During this session we spend a considerable amount of time talking about what the company is looking for in applicants and how they can individually address those issues as a professional narrative. I'm trying to develop communication skills, but a very specific genre of professional communication, where they have to convey a lot of professional information succinctly. In the mock interviews they have to take on the role of both interviewee and applicant; it's only when they take on both those roles they begin to understand the dynamic of what's happening in the interview process. They are also required to provide

peer feedback on the application letters. At this stage it's most important that they use their critical reflection skills as a learning mechanism, so they understand what should be included in their application and how that information needs to be conveyed. Experiencing that process teaches them a lot.

Starting with an individual approach promotes engagement, and then moving to a team approach promotes shared understanding.

In week four (a workshop) students are put into their teams, where they have to collaboratively identify a topic for their team project. During the first few weeks each student has been asked to identify a potential topic, so they are well prepared by week four to work in a team. Although it is a team topic, each individual student is asked to write up the team project as a problem statement.

In week five we assess the problem statements. The problem statement is the project and the requirements are quite structured. They have to include:

- a statement of the problem (project topic);
- an overview of the context;
- who they are doing the project for (client); and
- how they are going to evaluate it (outcomes).

They then work in teams to refine their collective approach.

In week six the teams present their projects to the larger group for review. Starting with an individual approach promotes engagement, and then moving to a team approach promotes shared understanding.

From week seven through to week nine students work in teams on their projects, with final reports due at the end of week nine. While this teamwork is happening we organise a number of guest speakers and activities that run concurrently but they aren't so time-dependent.

One of our guest speakers this year presented on engineering ethics and provided a number of case study scenarios for students to work through. He is a retired CEO of a large publishing company and has experience working with Transparency International on reducing corruption. He poses questions like, "Would you take a bribe?", and runs a group-based discussion in response to them. Another presenter talks about issues such as stakeholder management and project management, but I must say often the students are as interested in her career and workplace experiences as in her presentation.

In week 10 I ask students to write a survey for stakeholder groups. For example, with wind farms students often say stakeholders are "the community", but who are the community? And are they going to be in favour of or against a project such as a wind farm? Students need to be able to put themselves in the position of the stakeholder and take their point of view. Writing a survey helps them identify that engineering is not just about designing things; it's also about being sensitive to those who'll be affected by your work and how you can address their needs. Students need to construct something rational to extract information.

During week 11 students exchange their final reports in preparation for their public presentation of their project in week 12. Not only do they have to present their team project to the larger group, they also have to professionally

review and critique another team's project. This is done in writing and via a two-minute verbal summary during the week 12 presentations. All students are expected to be professional and ask and answer questions during the presentations.

Can you tell us about a few of the topics?

The project topics vary widely, but a popular one is renewable energy and of course the two major "problems" influencing uptake are reliability and cost. I encourage them to use their imagination; one group recently investigated the potential of mining asteroids, which was a lot of fun.

There was a great project a couple of years ago, by a multicultural group, which delved into regulations surrounding the recycling of cooking oil in China. This was a great project as it looked at technical solutions (detecting illegally recycled cooking oil) for identifying ways of improving regulation in China, along with ways to increase incentives to use waste oil for other purposes.

How do you assess the subject?

There is a lot of iterative assessment throughout the subject—each student reflects and reports on their individual progress. This type of assessment helps build the individual student's skills and helps demonstrate their growth and incremental improvement over time. The work done by the individual is then used as a basis for the summative assessment, which is a collaborative, team-based report.

We do a lot of work on report-writing, both individually and collectively. Each project team has agrees with me on a set of research topics, which are then assigned to individual team members (four). The team members must each investigate their topic and prepare a briefing report for their team, including both conclusions and

recommendations. The findings and recommendations from the four individual reports are then synthesised and used in the collaborative, team-based report.

All the assessment is scaffolded within the lectures, where I provide extensive support in how to write engineering report as well as strategies for addressing the reader's needs. I tend to adopt a journalistic approach to promote readability. We also provide quite a bit of support on reflective writing to feed into the reflective journal they each keep.

Critique and peer review of others' work is another key focus of the assessment process in the subject. I use it a lot because it not only encourages students to learn from a peer's work, but also provides them with an opportunity to provide input and feedback from professional standpoint. This is a skill that is required on a daily basis in the workplace, and students need to develop the skills as well as the courage to voice a professional opinion.

Is your program successful?

I think so. I get good results when I evaluate the subject with students and the faculty is very pleased. Anecdotally, students report they're generally very happy with the subject and find it helpful. We've had an increase in numbers from 40 to over 260 over the last few years, along with an increase in attendance at lectures and greater engagement throughout the semester. I think it's a subject that is possibly appreciated in the longer term, which is borne out by the fact that I've met past graduates on the train who report success in their careers. I find that very pleasing.

Preparing students for the jobs of the future



Professor James Arvanitakis

University of Western Sydney
Institute for Culture and Society

Humanities

Keywords

Adaptability, creativity, critical reflection, emotional intelligence, technology in context, negotiation.

James Arvanitakis tells his students he doesn't know what jobs are going to be out there in five years' or 10 years' time. What he does know is that developing skills like adaptability, creativity, creative thinking, critical thinking and self-awareness, which can be used in a variety of contexts, will help them adapt and thrive under changing conditions. He focuses on some simple classroom strategies to promote a wide range of skills that underpin the workplace of the future.

Why do you do it?

When people talk about closer ties with industry, I'm interested in what industry and whether that industry is going to be around after a period of time. Take the case of General Motors or Ford, who a few years ago we, as academics, would have focused on as potential employers of students. We can no longer take it for granted that the employers we see in the marketplace now will in fact employ our students in the future. We are educating in a time of disruption.

The challenge, of course, is that focusing too much on just employability means that we only think about the jobs of the moment and not the jobs of the future. We need to design learning opportunities that encourage adaptable, critically reflective students, focused on the skills and knowledge required for the future.

I'm looking at developing skills that students can use in a variety of contexts in the future; things like adaptability, creativity, creative thinking, critical thinking, selfawareness —those types of processes. These are the things that will be important in the future.

We don't know what jobs are going to be there for students in five years' time or 10 years' time. The last time that New South Wales won the State of Origin was eight years ago. In those days iPads didn't exist; the words "cloud" and "computing" weren't used in the same sentence; Facebook didn't exist. The world is so radically different now and we need to educate students for this type of future change.

I tell my students I don't know what jobs there'll be next year, or the next year, or the year after, but if you learn these skills, if you learn to think in this way, then you'll be able to adapt and thrive under these changing conditions.

What do you do?

I try to give students choice. I find this engages students in the process of learning and customises the curriculum to their needs, even in large groups.

I do this by developing a series of challenges and then letting each student self-select the challenge they want to do. The different challenges are designed to reflect the subject matter or unit that I am teaching at the time. They get to choose a topic that interests them, how they want to do the challenge and who they want to work with.

The challenge, of course, is that focusing too much on just employability means that we only think about the jobs of the moment and not the jobs of the future.

One example I'm using at the moment in my "Contemporary Society" subject is how technology impacts on our lives. The series of challenges are all developed around this central theme, which we discuss in the lecture prior to the activity. Students have to select a challenge and then they have the option of working as an individual, in a group, or with me in a more supported environment at the front of the room. They have to critically reflect on their personal skills and abilities and where they sit in that range of options. If they choose to work with a group then they need to negotiate that too.

Who is involved?

In this instance it's just me and the students but I also use the concept in other subjects and other challenges, for example asking students to write stories about gender.

How do you do it?

Well of course there's a little preparation work to do before the lecture. I have to set up the various challenges in the students' Blackboard site. Each challenge has three boxes (pink, yellow, green) or performance options: work alone, work in a small group or work with me. Every student has an iPad and it's connected to their Blackboard site.

During the lecture we talk about the concepts and issues surrounding the topic. If they accept a particular challenge, such as considering how technology impacts our lives then they have half an hour to use their technology (smartphone, iPad or computer) to take photos of three technologies that influence the way they think and write up how these affect their lives.

I tell them, if you think you have mastered this concept then you should be working alone and you just go online and do that particular task (the yellow box on the Blackboard site).

If they don't feel confident enough to work on their own then they can choose to work as a team. Maybe three or four people and they go and download the group activity (pink box) that has been set up in Blackboard. They too have to go and take photos of three things that influence the way they think, and write up individually how the technologies affect their lives.

The third choice is the green box; if students still don't understand the concept then they download the green box task and meet me at the front of the room where they can work with me to understand the task better.

Does it work?

Very rarely do I look up and find a student who has chosen the wrong group. It's a great way to tailor curriculum to students' needs. Individual students feel they are getting the appropriate amount of support. It works really well with very large cohorts too. It's really important to connect with students—in this particular unit I have over 1,050 students so I need to connect and engage with them and support them.

Capstone projects: Building self-awareness through multidisciplinary teams

Dr Julie Foreman

Swinburne University of Technology

Business and Enterprise

Business

Julie Foreman provides an in-depth look at how capstone projects can take students from an individual stance to a collective team-based approach while developing a range of employability skills and abilities such as collaboration, judgement, negotiation skills, consultation and self-awareness.

Keywords

Value judgements, real world learning, evaluation, interpretation, group decision making, negotiation, ambiguity, interpretation, evidence, self-awareness.

Why do you do it?

Capstone projects give students a much better idea of the deadlines and pressures of dealing with clients—it mimics industry.

A team of us developed capstone projects a number of years ago and it's had a number of convenors since, but in truth the actual practice and theoretical underpinnings haven't changed that much. It's fundamentally the same. The rationale, the way we approach the content and the assessment tasks we incorporate are all focused on students directing their own learning. Staff who teach in the course see themselves as facilitators and coaches, not instructors. Very little formal material is presented in this unit; it's all acquired through student research, which is supported by the facilitators.

I come to it from a strong industry background, and while the learning is validated through a strong educational approach it still needs to meet industry's needs. If I was hiring graduates these are the skills and abilities I'd be looking for. These are the skills that our industry needs and this is how students need to perform in our industry—that underpins the delivery of the unit/subject.

Going through the capstone experience often highlights to students how inflexible they are, but it also provides them with the opportunity to understand themselves better, to self-critique and identify their strengths as well as their weaknesses. Once they have greater self-awareness then they can build strategies to broaden and improve their skill base. If the client is happy with their work, the student's confidence grows immeasurably. They may not be great at a particular aspect of the project but they develop strategies to deal with it and improve over time. They begin to handle the discomfort associated with dealing with personal challenges. It's all about a growing self-awareness.

What do you do?

We have designed the capstone project unit as a pathway which takes the student from an individual stance to a collective team-based one. Students need to analyse and reflect on the brief, their personal skill sets and the personal challenges they face before they can effectively do the same as a team. This is so important—self-reflection and

...there's more student awareness of the skills you need to be successful in business at the end of the unit—this shines through in their reflective journals. They identify how they've grown through the process in terms of skills and abilities.

critical self-analysis are paramount to successful teamwork. Teamwork is about judgement, making group decisions, evaluating, modifying behaviour and working collaboratively with others to meet common goals. It's not just about promoting themselves or their group; it is about critically analysing a situation and dealing with it appropriately and professionally, both as individuals and as team members.

I strive for a real, authentic experience for the students. Each week I take the role of the industry partner and I judge them by those standards and provide them with feedback from that standpoint; that is how we run the formative assessment. It's my job to monitor the unit not only from a theoretical curriculum design perspective but also from that all-important industry perspective; they both have to happen at the same time.

The client develops a written brief which is introduced to students in the first week of the program. This year's brief is from the local childcare centre, which wants to make sure it has sustainable enrolments over their three to five (year old) programs. The centre also wants to market itself in the local area to achieve that; hence the need for a marketing plan. They are very proud of their current staff and want to encourage them to keep upgrading their qualifications, so they want to establish a staff performance and review process and identify appropriate professional development opportunities.

Who is involved?

About 700 to 800 final year students across both semesters go through the unit each year. We run 12 classes per year, which means 12 different clients and projects. Within each class the groups work on the same project. There are 47 students to a class, and they are divided into groups of six, with one coach per classroom.

Recruitment of clients and projects is handled by our industry engagement department in the faculty. Initially it was just us using our personal contacts, but things have gone well beyond that now.

What do students do?

Initially students work individually to analyse the client's brief, ascertain what the client wants and identify the skills they as individuals can bring to the project. As part of the assessment they are required to individually write up these reflections and submit them before they can move to the team-based context (multidisciplinary teams), where they negotiate a collective view of the brief and the team skills they bring to the project. This isn't as easy as it sounds because they have to deal with things like ambiguity; they have to tease out what the client is actually asking for (marketing plan, performance review). The brief isn't written up as a textbook or lecture slides, it's in the client's words and students have to interpret the brief, analyse it, and then identify strategies to address it.

During the second week the client comes in and presents their brief to the students, who have the opportunity to question them and clarify any issues they may have. Students are required to engage with the client professionally and ask appropriate questions. This is a planned interaction with the client and students need to investigate the client's environment, look at trends and clarify the project scope. In other words, they have to put all their professional knowledge into action.

After consulting with the client the teams are asked to put together a video pitch. They need to collectively interpret the project brief and tell me in a video what skills they have as a team and how they intend to use those skills to address the brief. All teams are multidisciplinary, comprising various business backgrounds, including marketing and human resources. In the pitch I'm looking for credibility and reliability, but I also want them to be engaging. Some students are quite reticent and you need to tell them to get out there and promote themselves—present their collective skills in the best possible light. Students find it both daunting and fun.

One of the key reasons we incorporate a video pitch into the unit is that students need to learn to sell themselves better at interviews. To achieve that they have to practise it. The concept behind it is to have a virtual portfolio that they can take to an interview and say here's what I've done and achieved with a real client; here's my pitch, here's how I work with a multidisciplinary team, and this is what I've learnt. It provides them with something tangible to speak to when they finally land an interview and hardcore evidence to back it up.

Students are also asked to develop a team charter. The team charter includes the team's goals, agreed objectives, performance standards, communication plan and action plan. Each team is responsible for negotiating their own charter, and they have to get it right, as they will be judged against the charter by their peers at the end of the semester. In the charter they have to have sanctions and a contingency plan worked out for when someone doesn't perform. It's all about the team managing the team; they have to collectively design it and own it.

That team charter is also critical to the unit, as it directly influences two of the unit outcomes. Firstly it forms the basis for the team's action plan for the semester, and secondly it provides the performance criteria for the peer evaluation. As part of the team charter students have to collectively agree to and articulate what the appropriate professional behaviour for the project is, take ownership of those decisions, then perform to those standards.

Students also undertake an individual industry analysis assignment (2,000 words) which is tied back to the action plan and their analysis of their personal skill set and the challenges they face. They have to break down the project into a timeline, identifying what needs to be done, the critical steps involved, and how they intend to contribute.

By week 10 the teams each have to have completed a draft of their final report (5,000 words, collaborative). We incorporate a drafting process to make sure there is sufficient substance and rigour for students' final presentation to clients. At this stage I provide copious notes and feedback from a mentoring perspective. In week 11 they do a practice presentation with further feedback from me and in week 12 it's the real thing: a full presentation of their final report to the client. The week after their client presentation students each have to submit their reflective journal and their peer evaluation.

Does it work?

We are fortunate now that we have clients approaching us and often a client will have two projects they want to complete. Frankly we have a backlog of projects, so that's a nice position to be in.

I do think that there's more student awareness of the skills you need to be successful in business at the end of the unit—this shines through in their reflective journals. They identify how they've grown through the process in terms of skills and abilities.

Client presentation day is really good. Students speak well, present things logically and professionally, and the clients are never disappointed. It's 12 weeks of hard work for everyone involved, but in the end everyone is a winner.

The Engineering Pavilion: A living laboratory



Associate Professor
Nicoleta Maynard

Curtin University
Faculty of Science and Engineering
Engineering

Keywords

Work ready, professional skills and attitudes, industry responsiveness, systemic thinking, engineering identity.

The Engineering Pavilion is the Hub of Engineering at Curtin University. The Pavilion is technologically connected and brings together an array of telemetry systems that collect, store, sort, and analyse both live and historical information about its power consumption, solar power generation, heated water usage, air conditioning operations, building resonance and vibration. It's also the meeting place where engineering students, staff, student clubs and industry members can meet and engage in a variety of authentic learning experiences that promote industry engagement and the development of a wide range of employability skills.

Why do you do it?

Most of my current work stems from years and years of working with industry via personal contacts, industry advisory groups and committees. A few years ago I became interested in an MIT and Swedish Universities initiative, “Conceive, Design, Implement and Operate” (CDIO) (Crawley et al. 2007). CDIO aims to ensure that every graduate engineer is able to conceive, design, implement and operate complex value-added engineering products, processes and systems in a modern team-based environment. CDIO Standards aim to create an environment in which students develop the required technical knowledge and the professional skills and attitudes sought by the profession. I was actually responsible for implementing CDIO in the chemical engineering course at Curtin.

For me, learning occurs when knowledge arises through the transformation of shared experience that involves engagement and interaction within the learning space. Because I’m committed to these beliefs, I’ve spent considerable time thinking about how I could develop a learning space which explores active and cooperative learning, provides prompt feedback to students, encourages critical analysis, is built on educational research and promotes a fun learning experience.

Finally, with the help of engineering colleagues, Curtin Properties Department, students and industry partners I came up with the notion of The Engineering Pavilion as a meeting place, which links the principles behind CDIO with a “living laboratory” where students can develop their engineering skills and professional identity through interactions with fellow students, teachers and industry.

Tell us about the Engineering Pavilion.

The Engineering Pavilion, Building 215, is the Hub of Engineering at Curtin University. It’s the meeting place for engineering students, staff, student clubs and industry.

The Engineering Pavilion is technologically connected and brings together an array of telemetry systems that collect, store, sort, analyse and present online live and historical information about the state of the Pavilion. At the moment, the information collected includes power consumption, solar power generation, heated water usage, air conditioning operations and later this year thermal stress, building resonance and vibration, human occupancy and other measurements will be added. All the measurements are web accessible. The aim is to eventually use this authentic data in projects and classes.

*So you need to provide
space, time and
opportunity for your
community to thrive and
develop—it has to be a
meeting place.*

From a teaching and learning perspective the Engineering Pavilion is designed to promote active learning. The learning space is versatile and used for a variety of things as well as teaching. There are a number of dedicated “social” spaces which are often used to promote student—industry—academic linkages. The Pavilion is an ideal space where informal professional learning can take place. One of our student clubs recently set up an event here where a series of mock interviews were run by our industry partners; it was really successful. There are lots of other events run there too, such as guest lectures, student/industry social nights, information sessions, science/engineering activities

for schools and engineering competitions. All these events are run collaboratively by our student clubs and industry partners.

How was it set up?

When I took on the role as Director of Engineering Education Development I became responsible for engaging industry across all the engineering disciplines. Early on I was asked to map out with our industry partners a range of opportunities where students and industry could work together.

In the first instance we engaged students through their clubs; there were seven or eight clubs that I asked to become involved. We met collectively for two or three hours to identify three priority issues that we wanted to target within the project. The key issues had to be things that all three partners—industry, students and academics—were interested in, and they had to be achievable over the life of the project.

The first priority issue identified was industry projects in the curriculum; real projects that happen in the workplace. The academics and students worked together to review the curriculum, identifying where these projects would fit appropriately and how they could be assessed. They produced a document that outlined the unit, what was required, and how a workplace project could be implemented within it. This document was then handed over to the industry partner to identify appropriate projects. Some industry partners were pretty clued in and got their third-year summer placement students to identify projects that would interest students and be relevant to their studies, as well as being “doable” within a semester unit.

The second priority was mentoring, which is seen as a mutually beneficial relationship. Students were keen to know what was expected of them in a workplace and

industry wanted to know what graduates’ needs were and how they could better address them in workplaces. Industry was also interested in tapping into new leads on current technology, particularly software. Curtin Careers was very helpful in setting up the mentoring program for me. It’s really important to tap into existing skills in your university if you want your programs to be sustainable.

The third priority was vacation programs or work-integrated learning. Students were keen to identify ways to identify and access both traditional and non-traditional vacation programs and summer placements. As a team we had to identify a wide variety of strategies for students to gain experience, both paid and unpaid. Our Work Integrated Learning Coordinator in Engineering has become a key player in this part of the program.

How does this influence student learning?

I’m a great believer in communities of practice: communities where students, academics and industry work together to mutually support and develop each other. Take, for example, teamwork. When you put students together as a team within a subject they are often working at the same level of ignorance, which can be an unproductive learning environment for them. When you situate that same team within the Pavilion environment they instantly have the opportunity to meet and engage with a wide range of students and industry partners who have varied levels of experience; some are experienced in project management, some in data collection, some have very little experience at all, and others have extensive life experience—that is a real team!

The challenge of course is trying to achieve this in the curriculum. One thing we have noticed is that providing space and time leads to better engagement between all parties. One of my research assistants has noticed final-

year students walking through the Pavilion will see younger students doing projects and tell them “I’ve done that”, then offer advice and mentor them. So you need to provide space, time and opportunity for your community to thrive and develop—it has to be a meeting place.

Does it work?

We’ve done quite a bit of evaluation on how students engage with the Engineering Pavilion and how they feel about it. What we’ve found is that students now feel they belong to the space; that it’s somewhere where they can go, find out about new opportunities, study together, talk about things in general and meet other students. The clubs are feeling quite empowered about their experiences and report a stronger sense of purpose and responsibility. I’ve even had club presidents coming to me and asking to be involved because they don’t want to fall behind. One of the key success factors is mutual development—that sense of everyone benefiting from the relationship.

Feedback from industry is good too. We are involved with Woodside, Clough, Thiess, Lycopodium, KBR and Rio Tinto and they all continue to be very involved in the project. We are very proud of our association with them. They put money into it, they put time into it, and most importantly they engage with our students. However, they don’t all engage in the same way. Right at the beginning two of the industry partners/companies told us they didn’t have the type of projects that we needed within our undergraduate curriculum, and to compensate for that they are more heavily committed to providing guest speakers, mentoring and providing support for authentic assessment. They also provide a lot of hands-on experience.

Another key marker of success is the level of involvement and commitment from all companies. The company managers are heavily involved in the meeting and planning process for the Pavilion. If they commit to something then the whole company commits; it’s very reassuring not only for us but also for the other industry partners.

Actually, I found it fairly easy to get industry involved. It was much harder to get academics involved, as often they didn’t answer emails or get back to me, or even reply to industry partner emails. Once they get involved they’re very happy but initially it’s very difficult to engage them! Let’s face it: they’re busy and changing the curriculum takes time and effort. Things have improved over time as more and more people come on board and see how it benefits and engages students.

References

Crawley, E., Malmqvist, J., Ostlund, S., & Brodeur, D. (2007). *Rethinking Engineering Education: The CDIO Approach*. New York, NY: Springer.

The potential of Open Badges in higher education



Ms Kate Coleman
Deakin University
Deakin Learning Futures
IT, Education

Discipline

Keywords

Digital badges, open badges, credentials, micro-credentials, recognition, skills, knowledge, experience.

Kate Coleman's work in Mozilla's Open Badges project has opened up new ways of recognising skills and learning through an open, stackable framework that provides students and academics with an opportunity to recognise and record the more detailed aspects of learning. Kate explains how in the future badging skills, experiences and knowledge can supplement—possibly even replace—traditional assessment records such as marks and grades.

Why do you do it?

Mozilla's Open Badges project has opened up a new way of recognising skills and learning through an open, stackable framework and provided an opportunity to recognise more detailed aspects of learning. Badging skills, experiences and knowledge can supplement or possibly replace traditional assessment signals such as marks and grades in the future.

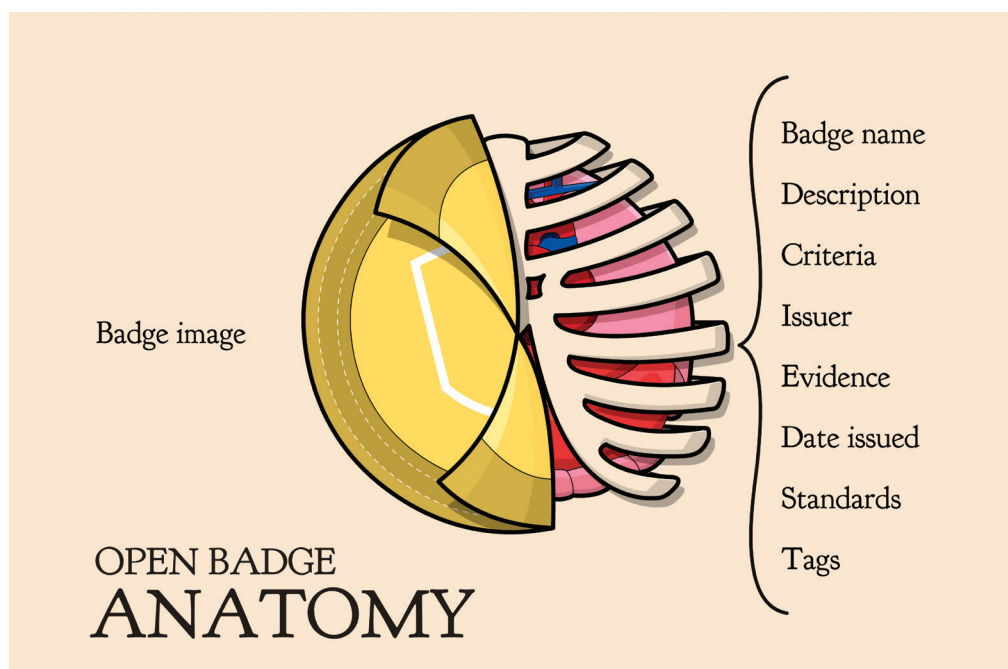
There are many definitions that explore the nature of the portable and granular digital artefact that is called a badge.

HASTAC defines a badge as a “validated indicator of accomplishment, skill, quality or interest that can be earned in many learning environments. The world is changing fast and, today more than ever, traditional modes of assessment fail to capture the learning that happens everywhere and at every age. Digital badges are a powerful new tool for identifying and validating the rich array of peoples’ skills, knowledge, accomplishments and competencies. Digital badges inspire new pathways to learning and connect learners to opportunities, resources, and one another” (Grant 2013).

In her book *What counts as learning*, Grant (2014) defines open digital badges as “simple tools that have the potential to change our current system of credentialing, creating ways to recognize more diverse learning pathways and opportunities for both learners and institutions for generations to come”.

What do you do?

Digital badges and Open Badges are still new technologies and there are many factors to consider when planning and designing a badge system. This ecosystem includes the pathways for earning badges; how related the badges are to learning and assessment; the definition of the badge, the badge criteria and standards; the learning evidence required to apply or issue; endorsement and verification of the evidence; and the technical, issuing requirements. As a digital artefact, the badge has these details “baked in.” This metadata is a structured yet flexible credentialing system that warrants, endorses, rewards and displays the achievement of specific and verifiable experiences, skills and knowledge through evidence. One way of seeing what lies inside the badge is to consider the metaphor of the badge as a biscuit and to think about how it is “baked”.



*Bowen (2014)
used with permission*

Who is involved?

This depends on the badge purpose and audience.

Asking yourself a number of questions when designing is important:

- What badges do you want to issue?
- Why do you want to issue them?
- Who do you want to issue them to?
- Who will issue them?

There are many things to reflect on, including the systems to create, issue and display the badges. Partnerships may be with employers, industry experts and course teams to endorse evidence.

What do the students do?

Scenario

Karim is an exceptional communicator. He has just completed his placement as part of his coursework and has a glowing supervisor's report. Karim has a good academic standing and his discipline knowledge is well reflected in his marks and grades. While on his placement he developed and displayed very strong communication and leadership skills, but he hasn't been able to have these skills confirmed and verified at the university. Karim will graduate with a credential from the university, alongside a portfolio of evidence that demonstrates the standards, but it's hard for employers to have the time to read a portfolio. In this case, Karim could apply for an 'institutional communication' badge to warrant, validate and recognise these skills formally. This badge, designed in consultation with experts, employers and key stakeholders and endorsed by his university, could be issued and shared in his digital profile.

Does it work?

The research from case studies indicates that yes, for some learners, badges incentivise, motivate and recognise skills, achievements, knowledge and experiences.

References

Bowen K (2014) Open Badges Anatomy (Image) Retrieved from <http://classhack.com/post/45364649211/open-badge-anatomy-updated>

Grant S (2013) HASTAC Digital badges. Retrieved from www.hastac.org/collections/digital-badges

Grant S (2014) What Counts as Learning. Retrieved from <http://dmlhub.net/publications/what-counts-learning>

Oliver B (2014) Assuring Graduate Capabilities www.assuringgraduatecapabilities.com/

Curing plagiarism while promoting judgement and professional integrity



Professor James Arvanitakis

University of Western Sydney
Institute for Culture and Society

Humanities

Keywords

*Judgement, professional integrity,
critical reflection.*

James Arvanitakis uses plagiarism as a theme to develop professional integrity. He challenges students to critically reflect on a highly personalised situation in their life to promote good judgement and a sense of integrity—key skills for employability.

Why do you do it?

A few years ago I was running a large class and I had about 78 incidents of plagiarism. I had to meet individually with each one of those students and investigate what was going on.

Of the 78 cases, I identified that only two cases were from “buy an essay.com” or “cheat.com” or whatever those sites are called. The conversations I had with students went, “Did you copy that sentence from the website?” ... “Yes” ... “Did you copy that from the textbook?” ... “Yes” ... “Why?” ... “Because you wrote it and I wanted to let you know I’d read it”, or “You say it better than me”. They just didn’t understand what plagiarism was.

At the time I happened to be reading an article about professional integrity and the evidence showed that the integrity you show or demonstrate at university will reflect the professional integrity you display in your profession.

So it was really important to get to the bottom of what integrity means as a student because I want students, when they enter the workforce, to really know about or have a sense of integrity; to work out what is right and what is wrong in their particular profession and for them to understand that whatever they choose will have this reflexive process.

Plagiarism is a good topic because it works in lots of disciplines and it forces students to critically reflect. That critical reflection is a really important aspect of employability, because it’s all about judgement.

The only way you can develop a student’s judgement is to put them in a situation where integrity and judgement really matter to them, like essay writing—and passing

or failing. You then have to support that experience so they have time to reflect on why they should do or not do something. You have to model the behaviour you want to see.

Students are often confused and you just need to model behaviour and give guidance. You have to link that concept of integrity all the way through.

What do you do?

What I did was develop a 10-question quiz which is only worth 5% of the students’ marks but it is a threshold exercise that must be done before they submit their essays.

The quiz questions are “true or false” and the quiz can be done as many times as a student wants before they submit their essay. All of them get 100% because if they get it wrong then it explains why it’s wrong, gives instant feedback, and they can do it again of course.

The feedback in the quiz is modelled on my language, the language I use in the classroom: “Dude ... No, you can’t do that!”

Who is involved?

I've used the quiz in my subject for a couple of years now and some of the other academics at the University of Western Sydney (UWS) have adopted it. It's a pretty transferable topic, plagiarism, and the quiz suits or can be adapted for most disciplines.

I'm also working with the University of Tasmania, with their nursing students, on how we can instigate it in both their academic courses and their professional practice program. We are looking at that link between academic integrity and professional integrity to see if we can deal with professional practice upfront within the nursing course; highlighting what professional integrity is, what the issues are and how students can develop strategies to deal with it.

How do you do it?

Doing it is pretty easy, really. Technically you set up a quiz in Blackboard and link it to the submit process (Turnitin) and then allow the student to do the quiz multiple times. When they get 100% they can submit their essay.

It's important that you develop good case studies though; ones that really challenge the students and tend to walk that fine line in judgement. Here is one I use:

A student has just written a great 1,500 word essay and is just about to turn it in and they've just read a great article and add a fabulous sentence... only 14 words. That's just 1% on 'Turnitin'. Nobody is going to care ... just 1%, why not?

That's the type of case they've got to think about. You have to give them feedback about the academic integrity of that situation so they know, so they remember, because they're going to be faced with that sort of decision time and time again professionally.

Students are often confused and you just need to model behaviour and give guidance. You have to link that concept of integrity all the way through.

Does it work?

I saw plagiarism collapse the moment that quiz was implemented. It went from 78 to three cases the next year. It's incredibly effective.

SKILLS

ABILITY TO
THINK.

Aptitude
- academic marks
- achievements
- referees.

Innovative

thinker

knows context.

Knows themselves.
(as well as humble)

ABLE TO
Think

Knowledgeable
broadly

Intellectual
Capacity.
& Engineering
Knowledge

answers
questions
competently &
confidently

Analytical
Thinker

Intelligence
IQ & EQ.

strong
computing
skills

confidence
with numerical
modelling &
data processing

basic
knowledge
of
traffic & Transport

Basic Engineering
Knowledge

Aptitude
- academic marks
- referees
- additional
activities
as well as
course

ABILITY TO CARRY
OUT "BASIC"
ENGINEERING TASK

