

The 4Es of Employability

Academics feel overwhelmed as they are faced with the responsibility of developing employability capabilities and attributes, in addition to delivering discipline specific content and skills. They realise that the shift towards teaching sustainable capabilities means a shift in the way they teach. But what that shift should be, or how they should bring it about, is unclear. In workshops with academic staff, the project team have discovered that the single most important challenge staff feel they face is not having a single and simple pedagogical model to guide their teaching. The 4Es of Employability model is intended to provide such a model, and to stimulate small but impactful modifications to existing practices in ways that encourage deep learning of disciplinary knowledge and graduate capabilities.

The need to develop in our students attitudes and values such as ethics, integrity, social responsibility, proactivity and adaptability, as well as the capacity to think critically and creatively, moves us very firmly away from transmissive models of education and into the zone of transformational learning. Transformational learning is a form of learning that claims as an outcome a change in self (Boyd & Myers, 1988). Cranton (1992) proposes three types of change in self: assumptions, perspective, and behaviour. While transformational learning involves a change in the individual's very being rather than a simple accumulation of knowledge, the graduate profile/employability agenda requires not only that a change occurs but that it is used in students' lives and careers. Thus we are seeking teaching that is not only transformative but also transferable. The literature is vast, complex and in places contradictory. Most academics cannot devote the time it might take to make sense of the research, let alone work out how to apply it to their practice. In an effort to identify common principles or archetypal practices the research team have drawn on the following theories:

- Transformational learning
- Social cognitive theory
- Constructivism and social constructivism
- Transformational leadership
- Transfer of learning

- Intentional change theory
- Transformational teaching
- Phenomenography

A simple set of 4 principles are proposed that can be flexibly deployed in a wide range of settings. The vision is to provide teaching staff with a theoretically informed model that is easy to understand and can be used to support the design of student experiences.

The model has four teaching principles encompassing the need to:

- **Excite** students about their learning;
- Enable students to **explore** new concepts;
- Provide challenging but secure opportunities so learners **extend** and embed their knowledge;
- To devise ways for students to **exhibit** their learning in authentic and contextually meaningful ways.

A description of each principle and suggested practices is given below.

Excite

Students are more likely to learn if they are motivated by the prospect of a course, find learning relevant to their current conceptions, and feel they are likely to be successful. This is demonstrated in the following theories:

- Student self-efficacy is a powerful determinant of learning (Bandura, 1997).
- Constructivist theories state that learning can only be built from current conceptions (Piaget, 1967).
- Intentional change theory suggests that students learn when they can see a route from their existing 'real' self towards a personal vision of an ideal self (Boyatzis, 2006).
- Bass and Riggio (2006) say that transformational leadership involves "inspiring followers to commit to a shared vision and goals".
- Learning begins when students appreciate their own pre-conceptions and see they are different or incomplete and so recognise an opportunity for growth (Mezirow, 2000).

Teaching techniques

- Relinquish control to allow individual goal setting and student input into course design.
- Inspire students through guest-speaker sessions with recent graduates.
- Include pre-reflection activities.
- Encourage discussion to expose variations and commonalities in aspirations.
- Prompt students to create a vision.
- Encourage students to set goals, identify development needs and plan for achievement.
- Build student confidence to reduce anxiety.

Explore

Students are more likely to learn if they are given opportunities to explore new concepts in meaningful ways. The shift in learning mechanism is from hearing about new concepts to experiencing them and/or from listening to explanations to actively examining new ideas and personal thinking patterns or habits of mind. Much of this type of learning necessarily involves interacting with people or the environment. It is emotional, relevant and interesting rather than rational and abstract. Students need to develop insight into new concepts and their own intellects. This is shown in the following theories:

- Social constructivism suggests that learning takes place in socially situated contexts and through interactions with others (Vygotsky, 1978).
- Learners construct their own understanding and knowledge by experiencing things first hand. They actively create knowledge by relating new knowledge to their own ideas and experiences (Piaget, 1967).
- Social cognitive theory and transformative learning theory emphasises the need to cultivate learning and planning skills to meet goals (Mezirow, 2000).
- Students learn by amending their ways of thinking and points of view (Cranton, 2006).
- Intentional change theory advocates that students develop plans for learning (Boyatzis and Akrivou, 2006) and social cognitive theory draws attention to the importance of self-initiated action (Bandura, 1986).
- Learning is not a purely rational exercise, it involves feelings, intuitions, imaginations and is personal and social (Gabrove, 1997).

Teaching techniques

- Expose students to new ideas.
- Create opportunities for students to experience concepts first hand.
- Encourage reflective thinking.
- Allow student input into activity and assessment design.
- Include group and peer activities to expose students to diverse ideas.
- Provide opportunities for students to relate theory to practice.
- Provide opportunities to reflect on thinking and values and how they can be changed.
- Provide opportunities for students to plan their own learning and identify mental or physical resources they need in order to learn.
- Provide time for students to work at their own pace.
- Encourage students to explicitly consider how learning will come about and what actions will facilitate it.
- Encourage peer to peer teaching and accounts of learning process – lecturers have often automated and rendered to the unconscious elements that students must consciously attend to.

Extend

Having acquired initial concepts, students are more able to learn and achieve a high level of mastery if they are given multiple opportunities to extend and challenge their values, ideas and skills in social, authentic, relevant and meaningful contexts. Acquiring new skills and mind sets that can be applied appropriately requires extensive practice and takes time, and is facilitated by reflective thinking. A wide variety of application opportunities and the development of reflective practices is thought not only to increase ability but also the likelihood of transfer of the skill in future courses or the workplace. This is demonstrated in the following theories:

- Capabilities are developed and extended when students are given opportunities to remember and apply skills and knowledge to multiple contexts (Rittle-Johnson, Star and Durkin, 2009).

- Self-efficacy and self-directed learning skills are developed when students are given opportunities to reflect on their ability and performance (Cranton, 2002).
- Transformational learning occurs when perceptions are challenged and students are given opportunities to imagine, create and successfully navigate new possibilities (Taylor, 2000).
- Taylor (2000) found that the key ingredient most common in the process of transformational learning was the context of relationships (Imel, 1998).
- Sustained engagement determines intellectual development (Dweck, 2006).
- Students' metacognitive skills and persistence can be enhanced by explicit encouragement and challenge (Dahlgren & Chiriac, 2009).
- Only by encountering concepts in multiple guises can students identify the critical dimensions of difference (Marton, 1981).
- Learners are more likely to apply a concept or skill in a new context if they have previously encountered a superficially and structurally similar context (Gentner, 1983).
- Explicitly anticipating transfer opportunities and drawing attention to structural relations and distinguishing them from contextual or situational variants facilitates transfer (Garner, Gillingham, & White, 1989).

Teaching techniques

- Provide opportunities for students to share their experiences and how these relate to content.
- Include industry representatives not as speakers to talk about industry but as demonstrators, collaborators, commentators or challengers. Let students witness how they think and work.
- Scaffold the complexity of learning activities and assessments to challenge students.
- Expose students to diverse points of view.
- Encourage reflective thinking and create opportunities for students to challenge existing assumptions.
- See yourself as a provocateur or facilitator not as a traditional teacher.
- Encourage critical discourse – set up debates, dilemmas, role plays.

Exhibit

In transformational learning the learner's own judgement often defines the success or otherwise of an experience and the learning invariably relates to something personally meaningful. Contemporary policy approaches emphasise the need for formative guidance to learning from assessment systems. Formative assessment places emphasis on recognising and celebrating enhanced capability or insights as well as providing guidance for further improvement. Learner self-evaluations and peer-to-peer assessments of learning, current performance, and likely next steps are a valuable component of an enhanced assessment scheme.

While little is written about robust assessment practices in relation to transformational teaching, there is a large body of research and knowledge about formative and alternative assessment methods (Brown, 2018; Brown & Harris, 2016). Feedback needs to happen early enough to inform further learning and needs to be quality assured so that it guides learners appropriately. Assessments that focus on quality of learning, rather than the amount of learning, require systematic processes to ensure that the judgments that inform feedback and grades are robust. Evaluation of employability learning requires the development of a community of expertise among tutors, lecturers, PTFs, TAs, and professors as to what employability looks like within a discipline, how it develops, and how distinctions in quality can be made.

Assessments with predictive validity are likely to involve students executing tasks that share features of roles they are likely to encounter as citizens and in the workplace. Real world authentic problems are often ill-defined, complex and require the deployment of complex skills in concert; therefore, within reason, authentic assessments should be similarly challenging. This is demonstrated in the following theories:

- Near transfer is much more likely to be successful than far transfer (Singley and Anderson, 1989).
- Social cognitive theory suggests that learners are motivated when learning activities are relevant to their goals and feedback is similarly authentic (Bandura, 1997).
- Transformational learning occurs when learners practice their new roles or new perspectives to develop competence and self-confidence (Meyer, Land & Baillie, 2010).

Several authors point to the importance of agency. Having students produce authentic artefacts to their own design provides students with opportunities for self-direction and control they need (Taylor, 2000).

Teaching techniques

- Provide opportunities to use multiple and integrated employability capabilities to undertake authentic assessment tasks.
- Invite student input into assessment design and provide choice so students are producing artefacts that they will find useful or are solving problems that they have encountered in their own lives.
- Provide opportunities to create artefacts that can be used in society or the workplace or by students in their future job seeking or early careers.
- Provide opportunities for students to receive meaningful individual feedback from competent judges early enough to guide learning
- Invite industry input in either the guise of customers, mentors or judges.
- Secure industry advice on assessment design and delivery to ensure relevance to employability.
- Provide ways to recognise and celebrate achievements ideally with industry.
- Facilitate alumni and/or industry mentorship opportunities.
- Explain the relevance of any assessment to employability.
- Make the work students do public and make sure it is appreciated.
- Develop systems to ensure defensible quality in evaluative judgments and feedback across time, courses, or judges.
- Develop and share industry-informed criteria, rubrics, and scripts that transparently guide judgments.
- Develop systems to support the validity of student peer to peer feedback and judgments in light of industry standards.
- Develop systems to support the realism of student self-assessments relative to industry standards.

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