



The Enhancing Series Case Studies: Student Centred Learning

Transforming the Student Learning Experience: A Pedagogic Model for Everyday Practice

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Introduction

The Central Role of the Educator in the Construction of the Student Learning Experience

Although some consensus exists as to the roles that educators perform, Tennant (1997: 140) considers that there is “*ironically, an unnecessary dichotomous conceptualisation of teacher and taught in much adult education literature*”. Other writers such as Moon argue that we should consider ‘learning and teaching as separate operations’ (Moon, 2004: 12), whilst Knowles (1980) suggests that educators should be sound procedural technicians and resource providers, but advocates that the learners themselves also need to be active explorers in the design and management process.

The terms educator, designer, architect, choreographer, animateur, trainer, and facilitator all indicate a range of roles and identities and there is a tension at the boundaries of these meanings pertaining to the extent to which they are *aiding* or *providing*, *for* and *of* learning. All these roles involve, to some degree, an *intentionality* of design (Andreson et al., 2000), an “*approach or procedure, an acknowledged practice by a trainer or educator as a way of teaching or promoting learning*” (Beard, 2005b: 342), yet these titles and role descriptions (Miller and Boud, 1996, 1997; Beard and Wilson, 2006) posit a crisis of identity. Within constructivist approaches the learner is seen as the *central* actor, fundamentally separate from his or her environment in the meaning making process, intimating perhaps a curbing of the educators’ impact in the ability to influence this internal and external experience of the learner. Underpinning my thinking in this chapter is the recognition that learning and teaching

are inextricably interlinked processes, and there is a need for a co-constructive approach to student learning.

The Pedagogic Limitations of Existing Models

Many educators are unable to articulate a coherent view of what it is that informs and shapes their design of teaching, though typically this involves the application of certain models. Objective setting often starts the process and though problematic (Hussey and Smith, 2002; Watson, 2002) it is nevertheless a valuable approach to a question based learning needs analysis, beyond, as Fenwick notes (2003: 5), the usual “what” and “how” questions. Indeed the *where, when, what, why, and how* of learning form some of the fundamentally reflexive questions required of us in pedagogic fieldwork. Significant contributors to the field such as Boud and Walker (1993: 19) note that:

“whilst there has been extensive discussion of models in theory-building and research, less emphasis has been given to the development of models to aid teaching and learning.”

Mortiboys (2002) in *Teaching with Emotional Intelligence*, regards three dimensions of teaching as key: technical knowledge, subject knowledge and emotional competence.

Brooks and Brooks (1993:3) in presenting a case for constructivist classrooms, note that many promising educational propositions fail to address the core “*processes of teaching and learning that occur daily, relentlessly, inexorably*”. In 2001 Heron voiced concern that:

“The old model of education, going back to classical times, dealt only with the education of the intellect, theoretical and applied” (2001: 208);

His new model integrates emotional, interpersonal and political competence. He also noted that:

*“nowadays we have people who are learning by **thinking, feeling and doing** – bringing all these to bear on the acquisition of new knowledge and skills.”*
(Heron, 2001: 208 – bold type added).

These categories are expanded still further in the new model offered in this chapter. At variance with Heron, Illeris posits cognition, emotion and the social as critical dimensions, noting that ‘there do not appear to be any earlier learning theories that fully recognise and deal with this complexity in its entirety’ (Illeris, 2002: 9). Thus within constructivism the central pedagogic concern and key philosophical debate, appears to be the extent to which knowledge is socially, psychologically, emotionally, bodily, politically, environmentally or otherwise constructed.

Snyder (2003: 159) notes the institutional difficulties of generating effective approaches to student learning:

“The cultural environment of higher education does little to foster active learning to strengthen critical thinking and creativity skills in its students.....Faculty are given little time, budget, encouragement or support to develop ‘active learning’ tools that assist in developing these skills. Incorporating ‘active learning’ pedagogic techniques, for example, developing and running exercises, group projects, or simulations, is risky for a faculty and there is no guarantee that these techniques will work or that students see the benefits of this form of pedagogic method. Fortunately, but slowly, the cultural environment that places barriers to moving toward more innovative pedagogical tools is eroding away.”

In offering this pedagogic tool (Beard, 2007) I expand the three dimensions offered by both Illeris (2002) and Heron (2001) (see figure 1). I also deal with the issue of *connectivity* (Nicol, 2003) between the primary, outer, public world experiences and the secondary, inner, private world experiences; learners ‘explore inner space as well as the physical world, entering deeply into the inner being of the mind and seeking to be fully connected with the outer world’ (Fenwick, 2003: 52). The framework presented here attempts to provide a logical framing of the milieu of themes arising from case material within a set of six categories of *being, doing, sensing, feeling, thinking, and changing*, that have a synergy with the six fieldwork questions about the *where, what, how, hearts* (affect) and *minds* (cognition) of learning to create learning and change (see Figure 1).

Experiential Approaches to Student Learning

I am thus proposing that experiential learning is not just learning by doing, despite experiential learning having a history dating back to Eastern, Confucian philosophy, with the aphorism ‘*I hear I forget, I see I remember, I do I understand*’ laying the very early foundations for subsequent Western interpretations. Many writers have contributed to the debate about the notion of learning from experience or learning from doing (Dewey, 1938; Rogers, 1969; Kolb, 1984; Revans, 1980; Boud and Walker, 1993). In this chapter I seek to establish that *experiencing by doing* is central to effective learning but that the learning experience is enriched when it involves learning from *being, doing, sensing, feeling, thinking and changing*.

Because of this long lineage, experiential learning has evolved within many disciplines and fields of study and whilst this offers a strong interdisciplinary diversity, a further consequence is that experiential learning exhibits escalating ideologies, meanings and problematic defining parameters. My proposal here is that there is a need to respond to calls within a range of disciplines for learning approaches to provide greater synergy between the interaction of the inner world and the outer world experiences of learners, and so my starting definition of experiential learning is as follows:

EL is a sense-making process of learning that actively and reflectively engages the inner world of the learner as a whole person (physical-bodily, intellectually, emotionally and spiritually) with the intricate ‘outer world’ of the learning environment (nature, place, social, political).

This definition forms the basis of a new model that I wish to propose for pedagogic purposes: for learning design and delivery in higher education.

A New Model: A Visual Metaphor

The model I am proposing is shown in Figure 2, as an abstract, visual metaphor representing a *combination lock* with several categories or cogs that can all be independently rotated. Its simplicity lies in the fact that it involves six basic learning design categories yet it has the potential to produce several million possible permutations. The left side of the framework represents the outer, public world of learning. The central, lighter shaded cog represents the sensory modes, as conduits between the outer world and the inner, private world of the individual learner (shown on the right hand side).

The framework is however much more than a set of categories: it has been built upon a distinctive grounded synthesis of theory and fieldwork, and uses a substantive body of data from ongoing research that has been developed over a period of twenty years, emerging from my personal interactions, from discussions with significant stakeholders and informants, and from seeing and being in the learner's immediate experience and environment. This in turn has lead to the creation of a milieu of *themes* within the six categories that present limitless possible combinations for the design and management of learning.

EASTERN PHILOSOPHY

Confucian aphorism (AD 551-179)

I Hear-forget
I See-remember
I Do-understand

SIMPLE WESTERN MODELLING

Dales Cone – ‘Instructional’ Techniques Triangle - 1969

Tell
Show
Do



Kolb EL Cycle - 1984

- 1. Concrete experience** - doing
2. Reflective observation - reflecting
3. Abstract conceptualisation – forming new concepts
4. Active experimentation – application.

1.

4.

2.

3.

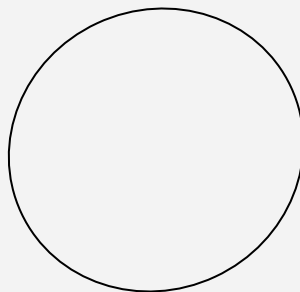
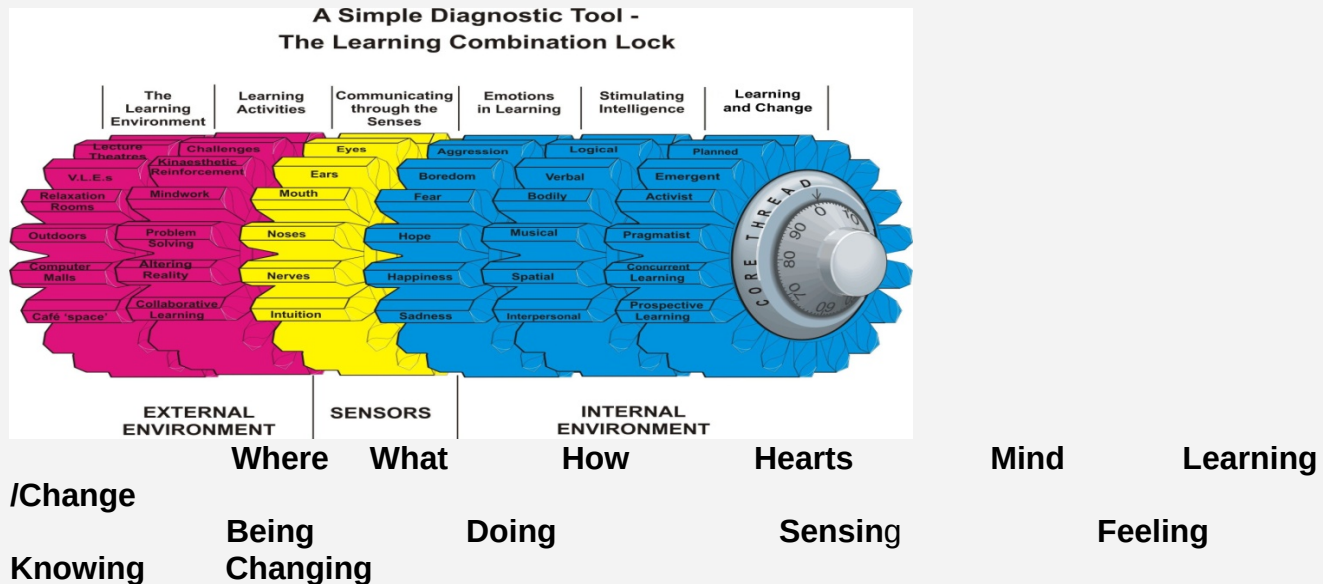


Figure 1: A new framework that extends the practical efficacy of experiential teaching and learning

Learning Combination Lock – 2002/2006

A Framework for the Design and Management of Experiential Learning.



The framework diminishes the primacy of 'doing' in the experience of learning.

Six **Categories** each with 'descriptors'.

Producing a practical milieu of emerging pedagogic **themes** within each category.

Figure 2: The Learning Combination Lock

Working with the Learning Environment

The first tumbler in the model represents the learner environment: the space, place, social, emotional and political context that provides opportunities and stimuli for student learning. New spaces increasingly provide very real opportunities for the individual to learn in a deep way about themselves and their interactions with their outer world. The design and use of the student learning environment is beginning to metamorphose. In the past it was strongly associated with the lecture theatre and textbooks; nowadays, even in higher education it includes distance education sites, common areas such as halls, social group work space with cafe culture sofas and coffee, outdoor green spaces, amphitheatres, video clips, and virtual discussion groups. An illustration of the transition in thinking can be found in the following Indiana University definition of a learning environment:

"A physical, intellectual, psychological environment which facilitates learning through connectivity and community." <http://www-lib.iupui.edu/>

Whilst students traditionally spent many hundreds of hours learning in lecture theatres and seminar rooms, learning is increasingly spilling out into informal learning spaces that are increasingly being used for more formal learning as is illustrated by the case study in Figure 3. In Finland there are lecture theatres with seat hammocks, specifically designed to enhance the creation of certain mental states, such as relaxed alertness, and in Lancaster University students learn about countryside recreation within Mongolian style tents with wood-burning stoves, located in the grounds of their countryside campus. There is a considerable, and growing body of literature highlighting the rapid evolution of new learning spaces, not least an intense interest in future 'classroom' design. The lecture theatres and seminar rooms that we as lecturers inhabit, only encourage ephemeral relationships as we arrive and occupy the space for one or two hours at a time and then move on to another 'given' space. Replacing or upgrading old learning spaces such as classrooms with new learning spaces is expensive.

Floor space and wall space can be used far more creatively to actively engage learners. Tiles or squares of carpet or masking tape can provide perfect grids to use in developing learning models, to create patterns or for generating active discussion or reviewing techniques. History can be mapped out on the floor with colour coded cards (see 'Walk the Talk' for a fuller description), and students can kinaesthetically 'walk-the-talk', for example, demonstrating their understanding much more effectively. Technological tools are also influencing learning space, with items such as interactive whiteboards and large plasma screens, which can enable the instant capturing of fresh, 'live' and indigenous intellectual property. As pedagogy interacts with the operational facilities and the media technology, the learning environment will undergo rapid change. This will change the future layout of walls and learning space and enable active movement of people and information. This is important, for I believe that good learning environments will increasingly provide areas that maximise the flexibility and mobility of information, people, and space.

Designing Learning Activities

The second tumbler in the model explores some principles involved in the design of learning activities. Snyder (2003) notes that a number of studies that compare active learning with passive learning, show that active learning methods generally result in greater retention of material at the end of a class, superior problem solving skills, more positive attitudes, and higher motivation for future learning. Creating a real sense of engagement in an active learning journey over periods of time such as a semester or a year or the duration of a degree, can be a transformative experience for students. Journeying, with its sense of setting off, building, constructing, changing, and arriving are all important conceptual ingredients in generating powerful experiential learning. Experiencing learning as separate modules will need to change so that the whole experience is more connected to the journeying through stages of dependence, counter dependence, independence and interdependence. By 'active' learning methods I mean intellectually, physically, socially and emotionally more active. Active learning can offer a greater depth of information processing, greater comprehension and better retention, in contrast with the passive learning techniques that characterise the typical classroom, in which lecturer wisdom is offered for students to dutifully record in notes. Active learning involves students doing something and taking a participatory role in thinking

and learning. The melange of activities can include elements such as: kinaesthetic activity; mental challenges; experiencing a learning journey; overcoming obstacles; following or changing rules; and altering reality. Although much more research is needed into learning activities used in higher education a basic typology of activity might for example include:

1. Creating a sense of a learning journey for students, with a clear vision of the bigger picture, with a destination, and route maps to guide.
2. Creating and sequencing an array of intellectually, physically and emotionally stimulating activities.
3. Adjusting or suspending elements of simulation or reality to create learning steps.
4. Creating activities to stimulate and regularly alter moods....acknowledge the student experience, create relaxed alertness, understand peak or flow learning.
5. Using the notion of constructing or deconstructing activities, such as physical objects, or non-physical items e.g. the gradual construction of a model, a concept, historical maps, key ingredients, typologies, a phrase or poem.
6. Creating and managing the learning community through a mixture of collaborative, competitive or co-optive strategies.
7. Creating and acknowledging feelings, values, targets, ground-rules, restrictions, obstacles and allowing students to address change, success and failure.
8. Consider multi-sensory teaching – see the next cog - experiment with building in a holistic 'sense' of the material covered consider the sensory enhancement of material e.g. touch, smell, colour.....
9. Providing elements of real or perceived challenge or risk....and allow students to address risk and the stretching of personal boundaries.
10. Introducing complex design, sorting and/or organisational skills.
11. Developing generic functional student skills alongside specific course content work - such as literature searching, writing introductions, conclusions, researching skills, etc.
12. Designing quiet time for reflection – using the notion of physical and mental 'space'.
13. Allowing the story of the learning experience (including emotions) to be told by the learners (student progress files, learning logs, reflective exercises, group reflective dialogue).

Working with the Senses

*“The natural attitude of common sense leads us to overlook the phenomenon of the perceived world...as we get on with life we do not notice the **role of the senses** in organising experience and constituting the physical world; it is precisely their business to make this role invisible to us.....Hence to rediscover and articulate it we have somehow to get a detached sideways look at ordinary experience.”*

*Merleau-Ponty, **The World Of Perception**
From the Introduction by Thomas Baldwin.*

The third tumbler considers how the senses - sight, touch, taste, hearing and smell – have the role of transmitting information which may then be interpreted and subsequently acted upon. Just using sensory-laden language appears to support more effective learning; neuro-

linguistic programming for example - O'Connor and Seymour, (1995) - tells us that good educators use communication that conveys visual, auditory and feeling messages to engage a broader range of learners in a more effective way, and learners also generate clues as to their preferred ways of receiving and handling sensory data in order to construct their own 'map' of reality.....I hear what you are saying (auditory), I see what you mean (visual), I get the hang of it (kinaesthetic): these indicate sensory preferences for learning. Lecturers too often use their preferred representational systems when communicating. Auditory dominant students might like audio tapes, talks, rhythms and sounds. Kinaesthetically dominant students like physical activity, which might include physical challenge or active drama and role play. With large groups of students, sample products can be passed around the lecture theatre to enable students to feel, see, move, explore, and try out. Environmental awareness in product-design students is heightened when I wind up a clockwork radio and show students my mobile phone charging off my solar rucksack while we discuss the basic principles of sustainable product design: the experience becomes more sensory, more engaging and memorable. Enhancing and awakening the senses and linking them to learning activities can create more powerful learning. The more senses we stimulate in an activity, the more memorable the learning experience will become because it increases and reinforces the neural connections in our brains. We also know that moods can be influenced by background music, by smells and by room colours. Music can be used to generate energy or for relaxation and contemplation that can enhance learning (Miles, 1997; Rose, 1996). Sensory reduction is also often used – blindfolds, for example, are the stock in trade of many outdoor education programmes.

Walk the Talk - Experiential Learning Case Study

Mapping the history of the environmental movement

W h a t i t a c h i e v e s

It develops a kinaesthetic learning imprint in the mind and body generating spatial awareness: learning by mapping and then walking the history of environmentalism.

It develops a deep understanding of complex information.

Active kinaesthetic reinforcement of learning increases active energy levels.

U n d e r l y i n g p r i n c i p l e s

The technique actively encourages group **research** and **collaboration** into specific allocated areas such as the voluntary sector, the laws, or government departments.

The technique uses spatial arrangement of **colour coded cards** (visual-spatial), with collaborative discussion (oral) and walking (kinaesthetic) the historical map of **events**.

The activity uses **space** (the room) as a time zone/line. A form of testing can be added using a **viva** principle if needed.

This activity develops a '**kit**' presented in a video box to give to students (see resources needed).

D e t a i l s

Students form groups to research specific aspects of environmental movement history using a prepared record of events spanning the last 300 years. This database is now available free on the Higher Education Academy HLST Network website at: (http://www.heacademy.ac.uk/hlst/events/detail/Learning_for_sustainable_futures).

In week six, the students map out on the floor their environmental history using coloured cards offering additional information in both written and oral form. Blue cards represent environmental laws such as the National Parks Act, yellow cards are used for the NGOs, grey for QUANGOS such as the Countryside Agency or English Nature, orange for key events in history such as the War or the Mass Trespass. The front of the room is the present day, the back of the room is the early 1800s.

The picture-map layout on the floor or large table demonstrates student knowledge and interpretations of the subject. Students thus **walk the talk** presenting their historical map as they journey through time and floor space. This kinaesthetically reinforces the learning and tests understanding in a visual-oral way.

The same can be done in other subjects, such as:

- 1. Literature reviewing** techniques exploring key texts (The texts are spread out in a large space and debated and discussed as people move around them – the spatial re-organisation and debate is key. They can explore similarities and differences, spatial temporal issues (for example, the international geographical spread of literature). Newspaper stories can be introduced first to explore these skills with less experienced learners.
- 2. The history of philosophy/philosophers.**
- 3. The history of computers.**

Figure 3: *Walk the Talk* Experiential Learning Case Study

Working with The Emotions

Boud, Cohen and Walker (1993, p. 14) note:

“...emotions and feelings are the ones which are most neglected in our society: there is almost a taboo about them intruding into our education institutions, particularly at higher levels.”

Fineman (1997, p. 13) made a similar observation and stated that:

“Learning is inextricably emotional and of emotions. The traditional cognitive approach to management learning has obscured the presence and role of emotion...”

During the past few years this failure to consider emotional awareness has decreased as a result of writings on emotion and emotional intelligence. Goleman (1996) championed the subject in his book *Emotional Intelligence* and drew on the work of Salovey and Mayer (1990) who classified emotional intelligence into five main domains: knowing one's emotions, managing emotions, motivating oneself, recognising emotions in others, and handling relationships. In spite of this societal and institutional pressure for objectivity the emotions have a powerful place in the process of learning. Boud and Miller (1996, p. 17) stressed that

“The affective experience of learners is probably the most powerful determinant of learning of all kinds...”

Managing the emotional climate, accessing emotion, mapping or encouraging change in the basic emotional make-up of students is a difficult yet necessary skill for lecturers (Mortiboys, 2002). Being able to sense, and where appropriate steer, the emotional bases of student behaviour is a key skill. Yet this needs emotional maturity, responsibility and personal understanding by tutors. Students are also increasingly being encouraged to undertake

personal and professional development portfolios and progress files that, through reflective exercises, examine emotional states in learning.

Working with the many forms of intelligence

The fifth tumbler addresses the nature of intelligence. In addition to emotional intelligence there are also other forms of intelligence which need to be considered and addressed in learning design. Before Gardner's (1983) book, *Frames of Mind*, much emphasis was placed on IQ - Intelligence Quotient which was based upon the narrow consideration of mathematical and linguistic skill. Gardner drew attention to the notion, and importance, of other forms of intelligence and proposed seven types:

1. Linguistic
2. Logical/Mathematical/Scientific
3. Visual/Spatial
4. Musical
5. Bodily/Physical/Kinaesthetic
6. Interpersonal
7. Intra-Personal

Stimulating these many forms of intelligence is key to inclusive pedagogy, and verbal/linguistic learning activities might include: reading books, journal logs, debate, storytelling, verbal humour, poetry, or creative writing. Bodily/kinaesthetic learning activities might include: role play, moving laminated cards, things to touch/feel, using physical metaphors, encouraging movement, or using stick-it labels that can be rearranged. Mathematical logical activities might use mind maps, systems processing, force field analysis, or assigning numbers to things. Visual/spatial learning activities might use wall charts, spatial anchors, gestures by lecturers, guided visualisation or imagery, visual aids, sketches and diagrammatic representations. More examples can be found in Beard & Wilson (2002).

Advantages of the Learning Combination Lock

Having investigated the six tumblers of the Learning Combination Lock (LCL) above, it is now possible to consider some of its merits and applications:

- The Experiential Learning Model and LCL are meta-models which attempt to provide a broader perspective of the learning process and its various elements and theories.
- Some learning theories tend to operate as closed systems operating in isolation from other theories. The LCL encourages a broader perspective which has the possibility of incorporating new theories with existing ones.
- The LCL provides the opportunity to consider other learning models rather than being like the golfer who is only able to use a limited number of clubs from the golf bag.
- The LCL is sufficiently flexible to incorporate the main behavioural, cognitive, and humanist schools of learning without placing them in opposition to each other.
- The LCL provides a systematic approach to the support of learning.

- The checklist of elements for each tumbler provides an *aide memoire* for the educator, trainer and developer.
- The metaphor of the combination lock should not limit the use of only one ingredient from each tumbler. In practice, learning events may incorporate several elements from a tumbler.
- The metal rod running through the core of the Learning Combination Lock represents the needs of the learner. These should be central to any consideration of the various options available in each of the tumblers.
- The LCL should not be used as a one-armed-bandit approach to selecting the ingredients for experiential learning activities. The learning needs and objectives should be carefully considered before addressing each tumbler in turn and selecting those combinations which are likely to be effective.
- The LCL is not an exclusive list of the tumblers and elements which might be considered in the design of a learning event. It allows trainers, educators and developers to add to the lock and build their own personalised set of learning permutations which respond to learning needs, thus adding to the millions of combinations. I encourage you, the reader, to customise the model for your own particular requirements.
- The LCL should not be applied in a mechanical fashion without an understanding of the tumblers and the principles of learning. Rather it should be considered a form of reference to guide the design and delivery of programmes.

Conclusion

In this chapter I have emphasised the importance of using the concept of experiential learning as a means of drawing together theory and practice. Drawing upon a new innovative pedagogic model for effective practice, many of the elements involved during the interaction between the learner and the external environment, i.e. the whole experience, can be built into the learning design process. The tumblers encourage a systematic questioning of six fundamental ingredients of learning whilst simultaneously providing an almost infinite number of learning design permutations.

The value of the Learning Combination Lock will be in the extent to which it is applied and further developed. Please feel free to use and adapt the model for your own purposes. For a full description of the application of the model see Beard and Wilson (2006).

As Kurt Lewin stated: "*There is nothing so practical as a good theory.*"

Biography

Dr. Colin Beard is a Faculty Teaching Fellow at Sheffield Hallam University. He is also a National Teaching Fellow and Fellow of the Royal Society of Arts. Colin advises many higher education institutions on innovations in teaching and learning, and he works extensively with international companies advising on and the effective experiential education and training of staff.

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