Experiential learning: defining parameters, contextual foundations, and influential contributions

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Introduction

There are many ways that people might learn from their experiences, for example through everyday life, social interaction, or by going to a conference or other event. But are all these experiences 'experiential learning'? After all, they are all potential learning *experiences*. Many experiential learning theorists would say not. Experience alone does not necessarily lead to learning. Something has to happen to these experiences: there has to be an intention, a readiness to grasp and transform the experience in some way and at some point in order to learn from it. One way to do this is by reviewing and reflecting in or on experiences. Whilst this suggests mental processing distinct from experience, this chapter will highlight other interactional processes integral to transformation. As the term experiential learning is now commonly used this raises an important question: *what exactly is experiential learning*?

This chapter will consider the meaning of the term *experiential learning,* and in doing so, some of its defining parameters, core principles, and significant contextual issues will be outlined. Early notions of experiential learning found in ancient philosophical thought will be briefly outlined and then followed by a consideration of a few of the more significant contributions to our understandings of the term from the 19th, 20th and 21st centuries. The chapter will also demonstrate how experiential learning has continually developed and evolved in many directions, with new ideas built on preceding ones. With advances in knowledge about learning, more complex modelling of experiential learning is developing in the 21st century, and so the chapter will conclude with an exploration of the implications of this emerging complexity in terms of both theory and practice.

Experiential learning: Definitions and core concepts

Experiential learning is a *category* or *type* of learning, and the term implies that the nature of the 'experience' of learning has significance. However, *experience* and *learning*-- both fundamental to human life--are perhaps two of the most complex and elusive words to define. The word *experience* derives from the Latin *experiri*: to ***try.*** The term *learning* relates to change, or transformation, in a person, community, or organisation, resulting from the acquisition of knowledge, ideas, skills, behaviours, or attitudes derived from experiences. It can be argued that there can be no learning without experience and so they are, to an extent, intimately intertwined. It is in this vein that Fenwick (2003) suggests that "if we include all human experience, then is not every minute of our lives, and every part of our ongoing sense-making, actually experiential learning?" She notes that many writers have grappled with the difficult and not insignificant problem of where to place the boundaries around experiential learning in adult education. Yet, she points out that the "distinction between experience and non-experience becomes absurd" (2003, p. ix).

Before considering how the history and evolution of experiential learning contribute to its defining parameters and core principles, it might be helpful to give a very basic understanding of what experiential learning is. A key, foundational principle underpinning experiential learning is to *let the learners 'do' the learning* (Beard & Wilson, 2018). This principle acknowledges that, ideally, learners should explore, discover, and find things out for themselves by doing. It follows, then, that the richest resources for learning reside in the leaners themselves. Traditional teaching, teacher directed knowledge transmission, can be transformed and redesigned to be experiential, to enable learners to be more fully *engaged,* through active participation, in finding things out for themselves. Learning by

'doing' includes exploration, reflection, problem-solving, experiencing difficult or challenging tasks that evoke emotional responses, manipulating objects, asking difficult questions, observing the self in action on a video, or intentionally learning about communication through everyday social interactions. The list of possibilities for doing is potentially endless.

There is no one definition of experiential learning, but there have been numerous attempts to create one. The existing definitions can be used to construct additional foundational characteristics of experiential learning. One comprehensive definition by Itin (1999), an outdoor educator, captures some of the practical aspects of experiential learning:

> a holistic philosophy, where carefully chosen experiences supported by reflection, critical analysis, and synthesis, are structured to require the learner to take initiative, make decisions, and be accountable for the results, through actively posing questions, investigating, experimenting, being curious, solving problems, assuming responsibility, being creative, constructing meaning, and integrating previously develop knowledge. (p. 93)

Nearly a decade later Beard & Wilson (2018) define experiential learning as:

> a sense making process involving significant experiences that, to varying degrees, act as the source of learning for individuals, groups, and organisations. These experiences actively immerse and reflectively engage the inner world of learner(s) as whole beings (including physical-bodily, intellectually, emotionally, psychologically, and spiritually) with the intricate "outer world" of the learning environment, in places and spaces, within the social, cultural, and political milieu to create memorable, rich and effective experiences for, and of learning (p.3)

The existence of a rich range of definitions for experiential learning is understandable as experiential learning encompasses a broad field of practice. Non-formal learning contexts including outdoor education, expeditionary learning, adventure learning, service learning, environmental education, and adventure therapy represent some of the more popular outdoor activity-based forms of experiential learning. Experiential learning can also be implemented in informal learning contexts or form part of a community change project or a personal development initiative. Experiential learning can also be part of formal learning contexts, such as a workshop session, a classroom lesson, or programme design. Because it can be applied in so many different contexts, experiential learning avoids being interpreted as an all or nothing concept. Although diversity of practice contexts creates problematic issues for the creation of definitional boundaries, what is common to them is that the *experience* is regarded as the foundation *of*, and the stimulus *for*, learning.

A third definition of experiential learning, created by Boud, Cohen, and Walker in their book *Using Experience for Learning* (1993, p. 8), further develops these principles:

> We found it to be meaningless to talk about learning in isolation from experience. Experience cannot be bypassed; it is the central consideration of all learning. Learning builds on and flows from experience: no matter what external prompts to learning there might be – teachers, materials, interesting opportunities – learning can only occur if the experience of the learner is engaged, at least at some level. These external influences can act only by transforming the experience of the learner.

In this definition the word *experience* is portrayed in two very different but interwoven ways. Firstly, experience is purposefully provided, or pointed to by the teacher, which then becomes the raw material for learning. Secondly, learners brings their own experience to the table, and so the experience of learning becomes more significant for the learner when it builds on what is already known, i.e. there is an element of continuity to any experience (Dewey, 1938). A 'suitable' experience for learning is

intentionally planned and designed unless it is informal and emergent (Megginson, 1994). Thus, expert design skills are required on the part of the educator. Experiential learning design involves the art and science of intentionally orchestrating and choreographing learning experiences to provide opportunities for learners to achieve desired outcomes or objectives (See Chapter 13 for a general discussion of instructional design). Experience design is not just about the design of things for learners to *do*, or the design of the resources required. There are two other experience design considerations for the teacher or facilitator: the design of an experience *for* learning (for example an experience to develop team building or communication), and design of an experience based on an understanding of *how* people learn, not only with regard to cognitive processes but also the ways in which learning is embodied through movement, spatial perception, and social interaction. The definition by Itin focuses on the micro layers of experience, such as being curious, creative, and asking questions, whilst Beard and Wilson focus on the universal macro layers of experience, referring to cognitive, physical, emotional, and spiritual modes. However, both definitions highlight the special role that the experience plays in learning when it takes centre stage. Together these definitions reveal that *experience* engages the whole person.

So far, several foundational concepts have been established from these definitions: (1) *experience* is important to the learning process, taking 'centre stage' in experiential learning design; (2) the *experiential* dynamic has multiple layers in that the experience *of* and *for* learning are both important in the design of experiential learning; (3) learning engages the 'whole' person in terms of their *inner* experiences (cognitive, affective, etc) and the *outer* world experiences (spaces, power, culture, interactions with others and materials, etc); (4) there should be a certain *quality* to the experience so as to *engage* the learner etc; (5) the experience should be *memorable;* (6) *conditions* for learning, and learner *motivation*, active *engagement* and *immersion* are significant; (7) that experience can be generated by an instructor to be experienced by the learner, or drawn on from the student to make use of their existing experience as content, (8) the richest resources originate within the learner as new experience builds on previous experiences creating continuity; and (9) the *experience* of learning has potential for transformation of the 'self', and or other/s.

Early beginnings: the contributions of philosophers from the East and from the West.

Moon (2004,) comments that across many disciplines the "views of experiential learning differ widely" (p. 110), and in this respect any search for unanimity might be impracticable. She does however suggest that the core meaning of experiential learning is derived from "all those who have contributed to the literature" (p. 107). Because experiential learning has a long history, there have been many contributions, only a few of the more prominent contributors can be briefly discussed in this chapter.

An important starting point for understanding the evolution of experiential learning concerns how the term experience has been understood over the centuries. The ancient philosophers from both the East and West explored the role that experience plays in terms of how we humans make sense of our world. Some writers even suggest that the term *experiential learning* is descended from the work of Aristotle (Stonehouse et al., 2011), who was regarded as an empiricist in that he argued that we can only know the world through that which is presented to our senses. This is in comparison to Socrates, who focussed on learning through the experience of questioning and social interaction, or Plato, the rationalist who used the experience of argument and logic. Although these philosophers had differing views, between them they identified some of the most significant ideas about how humans learn from experience. That is that we can learn from social interaction, and from our embodied sensory and cognitive capacities. However, these early philosophers argued that workers and slaves required only basic training for a job, and Aristotle "explicitly excluded women and slaves from higher stages of

education" (Palmer, 2001, p. 18). This is significant as concerns over the need to create a just and democratic society emerge later as an important principle in the evolution of experiential learning.

Eastern philosophy, particularly from Confucian and Taoist traditions, also contributed early foundational concepts. The common Chinese aphorism: "*I hear, I forget; I see, I remember; I do, I understand",* is derived from Confucian thought. This contributes more concepts to the practice of experiential learning, notably that experiential learning involves actively 'doing' for one's self, i.e. *learning by doing*, and that such an approach enhances memory, and *understanding*. The aphorism was first written in the rich pictographic Chinese language, and the Western understanding is reportedly an inadequate translation, particularly in terms of the meaning of the original Chinese notion of *doing*. Confucian philosophers sought rather to capture the broader notion of the role of experience in learning, notably the need for *immersion*, *practice*, *dedication,* and *discovery,* of an attitude, a skill, or knowledge (see Beard & Wilson, 2018). These early philosophical deliberations, concerning the part played by *experience* in terms of how we might know the world, continued. However, it was not until the early 19th century that the many foundational concepts related to experiential education were developed, largely due to concerns about the experience of schooling. It is at this point in history that the heritage of experiential learning is significantly rooted in, and intertwined with, experiential learning in formal educational settings.

19th Century: Inequality, and Traditional Educational Methods

Beginning in the late 19th century, an impetus for change grew out of concerns about the experience of schooling. These included: the arrangements of 'the typical traditional schoolroom, with its fixed rows of desks and its military regimen of pupils who were permitted to move only at certain fixed signals' (Dewey, 1938, p. 61); concerns about the teaching methods of recital and rote learning that prevailed at this time; and elitist and repressive ideas about schooling. The following passage, taken from a U.K. educational pamphlet in 1867, illustrates an elitist mentality that promoted social control:

> The lower classes ought to be educated to discharge the duties cast upon them. They should also be educated that they may appreciate and defer to a higher cultivation when they need it, and the higher classes ought to be educated in a very different manner, in order that they may exhibit to the lower classes that higher education to which, if it was shown to them, they would bow down and defer (Curtis, 1963, p. 256).

In the 1880's leading U.K. educationalists argued that more rigorous, child-centred methods should be introduced, built on "progressive discovery involving observation, experiment, and the use of inference" (Curtis, 1963, p.295). These ideas developed contemporaneously in both the U.S. and U.K., and they were being encouraged by similar minded theorists. In the U.K. educational progressives proposed the Heuristic Method (meaning discovery), and these ideas had clear similarities to the "scientific discovery methods" proposed by John Dewey in the U.S. Both involved learning experiences that called for the systematic use of observation, hypothesis forming, experimentation, and testing. These "progressive" proposals for schooling advocated for an approach that is regarded as essentially *humanist,* in that learners' experience of learning, and their own ideas, are respected and given value when teaching methods embrace them discovering things for themselves. This push for progressive educational change, and the impact that John Dewey and others in the U.S. had in the U.K. is further illustrated by the following comment by Curtis (1963, p. 369-370):

> The idea that education means learning from books has given place to a wider interpretation, and the project method and activity methods have replaced the meaningless grind of earlier

days. In this respect the ideas of John Dewey have had a strong influence, and the value of practical occupations in the school has become widely recognised.

These progressive ideas about active, learner-centred methods of teaching in schools laid some of the foundations of what was to become known as 'experiential education', a term which was to become regarded at times as synonymous with experiential learning.

The early 20th century: The impact of the work of John Dewey

John Dewey, like others, built his ideas on the work of peers and predecessors. For example, Jean-Jacques Rousseau published *Emile* (1762), a book that exposed oppressive schooling. It is suggested that his revolutionary ideas about the need for a more "natural", developmental education, are "now strongly associated with the names Piaget, Vygotsky and Dewey", and that "Rousseau's ideas were as much a revolt against Plato as Plato's were against the schooling he sought to replace" (Wilson, 1998, p. 279). Rousseau became famous for his ideas about teaching by using the senses and applying the principles of nature found in the natural environment. His thinking, along with others, relates not just to teaching methods within school classrooms but also experiential education within nature and the outdoors in general. Thus we can see the early experiential foundations of outdoor education, adventure education, and environmental education. Whilst the focus of Dewey's work was school education, his thinking continues to inform and underpin the concepts and practices of adult experiential learning in the 21st century. Dewey focussed on the nature of the 'experience' of learning in schools. The oppressive school conditions highlighted above would have been in existence before, during, and after Dewey's own schooling and were influential to his thinking. Likewise, the practice of teacher as strict disciplinarian and the notion of the unquestioned authority transmitting fixed knowledge would have undoubtedly shaped Dewey's reaction against these "traditional" approaches.

Dewey produced several books that have contributed many foundational concepts underpinning experiential education and experiential learning. His core educational ideas are described in *Experience and Education* (1938), a book based on a series of lectures he gave on the state of the school in 1937 and said to contain the most concise statements of his ideas about the needs, problems, and possibilities in education. It was written after Dewey's direct teaching experiences with progressive schools and because of much criticism of his ideas. Dewey argued that a thorough "scientific" approach to learning should be adopted in schools, in which children would engage in rigorous investigation that would result in them intelligently exploring lived experiences using observation, reasoning, thinking, testing, reflection, and subsequently, would scrupulously test and revise their hypotheses as provisional but not final truths.

Dewey was regarded as one of the most distinguished promoters of the need for more "progressive" approaches to education. He was, however, critical of both progressive and traditional education, particularly because he saw that both lacked a coherent theory of experience. He sought to advance the intimate relationship between education and experience, though he noted that not all experiences are educative. What Dewey means by this is that some experiences can distort or arrest development and growth. An experience may be fun, but if it engenders careless attitudes, or callousness, or if future experiences are restricted because of them, then these experiences are mis-educative. Dewey also introduced the notions of *continuity*, and *interaction,* that '*intercept and unite'* experience (Dewey, 1938: 44). In this way, he argued that experiences do not occur in isolation: modes of experiencing interact with and are linked to previous experiences of the learner. Such continuity creates the foundation for ever expanding possibilities for future experiences.

For Dewey, the problem for traditional education was the nature of the educational experiences, and so he outlined many important features required in the careful design of experiences, a process that he regarded as being more difficult and strenuous for teachers than teaching by rote and drill. Dewey's specific concerns were that significant effort was required to determine the materials, methods, and social relationships needed for experience-based education. He felt that abstract ideas should be translated into 'concrete', physical, and material form so that the abstract would have practical application. Whilst his ideas continue to influence educational reform efforts in many ways, Palmer notes that Dewey's ideas never fully permeated the classroom realities of the U.S. educational system (Palmer, 2001).

The Late 20th century: Other contributors

From the above discussions, it becomes clear that the 19th century foundational roots of experiential learning came about as a result of concerns about the inadequacy of teaching methods, repressive and inequitable forces, and the use of strict discipline. These roots are considered as being located within progressive, humanistic, and liberatory movements representing additional foundational concepts underpinning experiential learning. Tony Saddington (1999) utilises the metaphor of a tree to highlight the complexity of experiential learning, with the roots being the underpinning theoretical positions and the branches being the different approaches to practice. He explains the importance in adult education of experience within three traditions. The *progressive* tradition, he suggests, utilises the learner's own experience as an important source of knowledge, whereas traditional didactic approaches present knowledge as given. The *humanist* tradition pursues and values wholeness, self-actualisation, and personal growth. The *radical* tradition sees reflection on experience as a means of resisting oppression, encouraging empowerment and generating social transformation. According to Usher, these traditions explain why experiential learning is often quoted as an approach that is "central to the theory and practice of adult education" (Usher as cited in Hager, 2009, p. 169).

Whilst these concerns about schooling gave rise to important underpinning foundations for experiential learning, the term was not specifically used, nor mentioned by Dewey; nor was it generally known. Seaman, Brown & Quay (2017) have tentatively traced the first use of the term *experiential learning* back to human relations training of the 1940s, though it is not clear whether the term may have simply evolved as a shorthand version of what was generally known as *experiential* and *experience-based* approaches to adult human relations training, where people reflected on and discussed their community and workplace experiences. These authors suggest that the "phrase itself began to circulate in the 1950's and proliferated in the 1960s and 70s as authors published models based on their involvement in therapeutic and adult education practices" (p. 3). Boydell (1976) refers to a US doctoral thesis (Hughes, 1974) that similarly describes experiential learning as the classroom adaptation of two decades of research on human relations training that used laboratory education and the T-Group method. The term T-group is short for "training group", and the term "laboratory" here refers to workshop style investigations that were conducted by behavioural scientists on the development of interpersonal skills to help individuals, groups, and communities gain awareness about human relations. This is significant as Kurt Lewin's Action Research and T-group training methods applied the following sequence: *concrete experience*; *observations and reflections*; *formation of abstract concepts and generalisations*; and finally *testing the implications of concepts in new situations*. It was this approach that was to become the foundational basis of the experiential learning theory (ELT) developed by cognitive psychologist David Kolb and his colleagues (Kolb, Rubin & McIntyre, 1971).

David Kolb played an important role in popularizing the term experiential learning in the late 20th century. His seminal publication, *Experiential Learning: Experience as the Source of Learning and Development,* published in 1984, raised the profile of experiential learning across the globe, an

achievement that few if any other experiential learning authors have accomplished. The growing popularity of experiential learning at that time was reflected by the fact that the first major international conference on experiential learning was held in 1987 (see Weil & McGill, 1989), and it is significant that it attracted practitioners from a diverse range of disciplines. Other theorists were also using the term "experiential learning"', such as the management educator and consultant Tom Boydell in 1976. Others have produced important texts with noteworthy titles that use other popular phrases associated with experiential learning. Edward Cell, for example, produced a book on experiential leaning at the same time as Kolb (1984) titled *Learning to Learn from Experience*. Kolb's early publications in the 1970s also introduced the Learning Style Inventory, which he argued would allow learners to recognise their preferred ways of learning and help them gain greater control of their learning abilities. Learner control, as has been highlighted so far, is an important principle for experiential learning.

Kolb specifically states (1984) that "learning is a process whereby knowledge is created through the transformation of experience: (p. 38). Kolb acknowledges that he built his theoretical ideas on Dewey's work as well as nine others within the fields of philosophy and cognitive and developmental psychology, including William James, Jean Piaget, and Kurt Lewin. It was Dewey's ideas about the use of "scientific" methods and reflection on experience, as well as the four-step sequence of Lewin's training group process that were particularly influential to the development of Kolb's experiential learning model. The model incorporates four basic modes of experience which relate to each other in what he called an experiential learning cycle: *concrete experience, reflection, abstract thinking, and action/testing.*

Kolb refers to the four experiential *'learning modes'* as representing four individual abilities (Kolb, 1976: 28). These modes require the learner to be actively involved in a concrete experience, to reflect on this experience, and, using analytical skills, be able to conceptualise and apply solutions to solve problems through a process of testing and experimentation. For Kolb, the experience has to be 'grasped' in order for it to be transformed into learning. He explained that grasping occurs in two ways: through a concrete experience, and through the development of abstract concepts or ideas. Transformation of the experience also occurs in two ways: through reflective observation and active experimentation. Assessing the learner's capacity to engage in these four activities formed the basis of his learning styles inventory. When modelled as a cycle, Kolb's theory is easily remembered, and along with its relative simplicity, this may be one reason why it has gained considerable influence.

The 21st Century: *Learning* and *experience* as complex concepts.

Whilst circular models like Kolb's reached a peak of popularity in the 1970's, they began to lose prominence by the early 1990's (Boydell, 1976; Taylor, 1991; Seaman, 2008). Although the learning *cycle*, as a visual *representation* of Kolb's theory continues to be remarkably influential, it is not without criticism. It is regarded by some as being overly mechanistic and formulaic (see Rowland, 2000; Moon, 2004; Seaman, 2008). Other criticisms include (1) its undue focus on cognition in a way that downplays the importance of other modes of experiencing, including the role of the body, emotions, and the influence of social and cultural contexts (2) the view of the learner as an isolated individual working alone to make sense of experiences, and (3) the lack of recognition that other modes of experiencing, beyond the four highlighted in the model, also play a role in learning. That Kolb's theory is overly individualistic is a critique put forward by Holman et al., (1997). These authors suggest that although extremely influential, the learning cycle is located within the cognitive psychology tradition, and mechanically explains learning as divorced from social, historical, and cultural contexts. They argue that social interaction in learning is important, and that the idea of a learner mentally (cognitively) reflecting on learning events as an isolated individual suggests an "intellectual Robinson Crusoe", as if the experiential interaction with "others" and the "world out

there" somehow does not exist.

From a critical feminist perspective Michelson (1998) questions the privileging of mind over body and the lack of recognition of the role of the body as a site of knowledge in the experiential learning theory articulated by Kolb. Fenwick (2003) critiques Kolb's experiential learning theory because it suggests that "knowledge is extracted and abstracted from experience by the processing mind (Fenwick, 2003, p. 21), as if learning is some-*thing concrete* and knowable rather than in a permanent fluid state of construction. She suggests that experiential learning should be understood as involving the whole person, "physically, emotionally, sensually, mentally and perhaps spiritually" (p. 13). *Learning Through Experience: Troubling Orthodoxies and Intersecting Questions is an* influential text in which that Fenwick explores four theoretical orientations toward experiential learning in addition to the experience-reflect-learn *constructivist* theory that Kolb's work is orientated towards. The four other orientations are *situative* theories (place, participating communities of practice), *psychoanalytic* theories (unconscious desires, ego etc), and *complexity* theories (exploring complexity, systems, ecological relationships). Seaman, who similarly offers alternative theoretical perspectives in his text *Beyond Learning by Doing* (2012), argues that "constructivist models reduce the highly interactive and bodily qualities of outdoor and adventure experiences to secondary elements in an individual's experience" (Seaman, 2008, p. 14). Whilst there is not the space here to explore the orientations that Fenwick points to, they underline the importance of the calls for theories that broaden the notion of experiential learning.

These criticisms warrant further exploration as they signpost areas for the further advancement of experiential learning in the 21st century. The theoretical trajectory outlined so far, from ancient Confucian sayings and other philosophical roots, the work of Dewey, Kolb, and on to the work of Fenwick, Michelson, Roberts, and other contemporary writers, illustrates that the understanding of experiential learning has become more discerning and complex. Long ago Dewey advised that there was a need to create a sound and substantive *philosophy of experience*. Any philosophy of experience, Dewey argued, should investigate the complexity of life as humans *experience* it. According to Crosby (1995), Dewey maintained that, as humans, "We find ourselves in continual transaction with the physical, psychological, mental, spiritual world, and philosophy should be a systematic investigation into the nature of this experience" (p. 11). This reference to the need to investigate all these modes of experience becomes significant to the creation of additional foundations on which to build new theories of experiential learning in the 21st century in which many interacting modes of experience are assumed to be in constant flux. Similarly, the interactional processes involved in learning are neither static nor confined to a few experiencing modes, because, as Davis and Sumara (1997) suggest, any enquiry into the experience of learning should not focus "on the components of experience but, rather, on the relations that bind these elements together in action" (p.108). Feeling or sensing and thinking, body and mind, culture and politics, individual and group, nature and nurture represent some of the components of experience that continually interact and overlap. Like Fenwick, Davis and Sumara suggest that cognition does not reside solely in the mind of the individual, and they question what might happen if learning is considered in ways other than from a constructivist orientation:

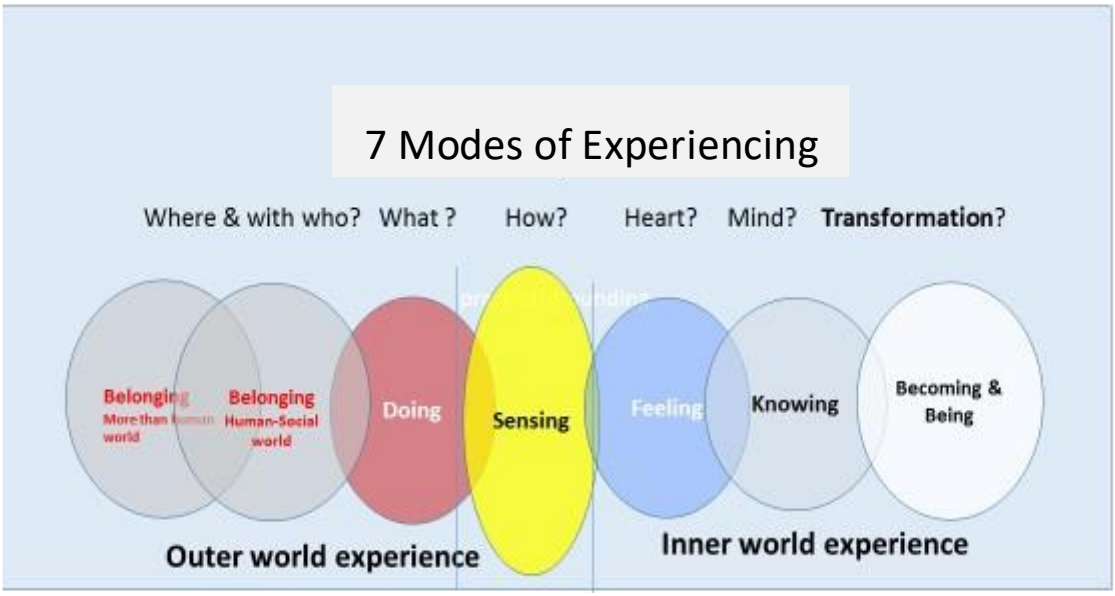
> [What would happen] if we were to reject the self-evident axiom that cognition is located within cognitive agents who are cast as isolated from one another and distinct from the world, and insist instead that all cognition exists in the interstices of a complex ecology of organismic relationality? (Davis & Sumara, 1997, p.110).

Fenwick positions this work by Davis and Sumara within the theoretical orientation of *complexity theories*. In this orientation there is a recognition that humans continually act and interact within a fluid, overlapping, and interconnected ecology of experiences. Interactions occur between

psychological, biological, personal, social, and cultural selves. She notes that this orientation focuses on co-emergence of all the systems (e.g. learners, settings, etc). From this perspective, thinking does not occur separately from our sense of belonging, being, or acting in the world. Humans operate within large social networks where we negotiate norms and values and attend to relationships, involving power and politics, within complex societal, historical, and environmental frames. Thus, experience is jointly constructed through interactions with 'others', including the non-human world. Contemporary theories and modelling of experiential learning would ideally reflect this complex, experiential ecology in a way that has applications for educational practice.

An illustration of an approach that embraces complexity can be found in the work of Beard & Wilson (2018). In this work, a model based on seven overarching *modes of experiencing* is offered to acknowledge the complex interactions occurring between *belonging, doing*, *sensing*, *feeling*, *knowing,* and *being* in the world. They also differentiate and subdivide layers of experiencing: sensing, for example, incorporates the sub-level modes of visual, haptic, auditory, kinaesthetic, olfactory, spatial awareness, and other modes of sensing. Their multi-disciplinary approach adopts an ecological, holistic modelling of *experiencing* as shown in Figure 1 below. The basic interpretation of their modelling shown below is a simple linear representation, offered as an introduction only for ease of understanding because these foundational components are in fact, not separate. Rather, they are in a constant state of interactive flux. The model in Figure 1 positions the *sensing body* as an *interface* between the internal and external world modes of experiencing.

Figure 1: A simple linear representation of the foundational dimensions or modes of experiencing.



This model, and the theorising that accompanies it, unlike most other experiential learning models does not neglect the "extra-human" (physical, natural world of living species, and spiritual aspects). What is suggested in this new modelling is that experiential learning should move beyond simplistic approaches to experience design by giving design attention to the holistic breadth and depth of experience. In the design process, the questions of *where, when,* with *whom*, by *doing* what, and *why* and *how,* of the experience all require consideration. All these interacting modes of experiencing contribute to the potential for change and transformation of our *being (*ontological/self/who we are/identity/values/beliefs etc), and these in turn can result in learning, change, and/or action (e.g. behaviours, skills, and agency) or an intention to act, in individuals, organisations and groups. Beard &

Wilson (2018) argue that individuals, organisations and groups exist in a state of *becoming,* always changing, always in an interactional process of re-making the self and/or the world. To an extent, this ecological approach to experience can be seen to build on Dewey's broad philosophy of experience, as outlined above, where he suggests that we humans are in a continual transaction with the physical, psychological, mental, and spiritual world, and that philosophy should systematically investigate the nature of these experiences.

Complex models and complex experience designs

Theory and practice should inform each other. Indeed, Lewin suggested that there is nothing so practical as a good theory. Here, I provide a design that illustrates this theory-practice relationship is one that is used within a higher education setting called *Walk-The-Talk.* The context in this case is learning about the evolution of the environmental movement in an experiential learning-*by-doing* design that includes, for example, understanding the evolving environmental tactics, laws, significant events and milestones, extinctions, environmental disasters, significant individuals, and the private and public organisations involved. The design includes relationship building and active and creative engagement by the leaners in the process of finding out by *doing*. It also includes the co-creation and continuous development of learning materials and other resources by students across several cohorts. The following description highlights how this was done.

The design was first conceived and developed for adult evening classes delivered for the local community on behalf of the U.K. Workers Education Association (WEA). The community wanted to be more actively involved in environmental issues, including local planning, and so a learning experience was designed to utilise their existing experience, to facilitate active engagement, involvement, participation, and discovery. The design was further developed over a period of three years of evening class delivery to community groups. It was eventually utilised with mature students studying for an environmental MA, and it is this higher education design that is described below.

There are three distinct phases to this design solution with each involving a very different experience in terms of the interactions with knowledge, objects, materials, and peers. Each of the adult students contribute to the experience by utilising their own existing life experiences and expertise. First the students work together in small groups to acquire information about a topic they select from a list that included identifying when certain organisations were established; which government bodies were set up, when and why; the impact that specific environmental events had on development and change. This fact-finding phase is simply termed the *informational* phase. The substantial amount of foundational information acquired is shared amongst groups and discussed before progressing to the next stage. The students also documented this work, creating booklets, and databases. These documents also formed foundational learning material for future cohorts who inherited and then further develop and update them each year. Over several years, a complex database covering over 350 years of the evolution of the environmental movement was co-constructed in an electronic format. However, knowledge acquisition on its own generates only a limited understanding that has been referred to as "surface learning" (Marton et el., 1976). In this phase of experience design, the production of foundational "teaching" materials was carried out by the students. This serves additional purposes, such as to develop a sense of confidence, responsibility for their learning, a sense of belonging to, and interdependence with, other students, and as a preparation and a prerequisite to the next, more complex design phase.

This second phase experience is called the *'relational'* phase of learning as it explores connections and relationships between events. During this phase, students are required to develop a greater depth of understanding beyond knowledge acquisition by considering how the facts, figures, and other

information are related to the broader evolutionary narrative. To do this, the students are asked to design a representation to show the spatial relational complexity, i.e. how one set of events or facts are related to (many) others. Their representation took the form of a large floor map not unlike the now iconic cartographic design of a subway or underground map. Each group lays out their own specific key data on the floor, using colour coded, laminated cards with dates and basic information on them. These cards, consisting of an initial set created by the instructor and further added to by students over many years, are utilised by students to construct a representation of their group data. When the other groups add theirs, a collective visual 'representation' is developed that is required to 'fit' in terms of the spatial (in relation to) and temporal (time) elements of other group data (see Kirsh, 2010). This skeletal but complex representation acts as a visual 'tool' (see Verschaffel et al., 2010) to be explored and further developed in a process that can enhance thinking and reasoning by making visible what they were beginning to understand in terms of the complex evolution. Students interact by, for example, walking amongst the cards (embodied), examining the map from different (spatial and temporal) perspectives, and articulating (oral) and sharing (social) what they see (sensory/observation/thinking aloud). As the relational complexity emerges, the reflective conversations generate a deeper understanding (higher abstract conceptualisation) of the evolution of the environmental movement. This phase also generates further queries and questions. The *Walk-the-Talk* experience can also be recorded, captured, and posted online to be shared and further analysed. The recording can also be enhanced with facilitator-instructor comments and challenging questions.

The third and final phase is termed the *transformational* phase, involving a level of critical reflection, dissonance, and discomfort, where values, beliefs, views, and existing interpretations are challenged and questioned. In this case, for example, questions included: *Why are the leading characters mostly men? In what ways has the voluntary movement developed or been thwarted in terms of their changes in tactics over periods of time? What is the political story behind this spatially expanded timeline? What is your own personal contribution to environmental change? Where and in what way does equality fit into this storyline? What role do the public, private and voluntary sector play?* This pedagogic example briefly illustrates an experiential design that embraces the holistic ecological complexity of *experiencing* that has been alluded to earlier in this chapter (For a full account see Beard, 2018).

Implications for practice

This Walk the Talk example outlines several important aspects of experiential learning including valuing the learner/s as a source of knowledge, as whole persons able to think for themselves and take responsibility for their learning. The students are required to develop a deep level of understanding about how a substantial number of interrelated events contributed to the development of the environmental movement, and they do this by being actively involved in several modes of experiencing. Whilst the full extent of the design format cannot be presented here, this approach involves the intentional design of active *doing* (e.g. producing databases, booklets, and factsheets), *sensing* (e.g. moving colour coded cards containing key facts with their hands to place them in the correct spatial and temporal relationship in a way that produces a pictorial and textual representation of the evolutionary narratives), *thinking* (e.g. developing abstract reasoning through discussion), and *belonging* (e.g. engaging in a variety of peer interactions). The students also experience a range of *feelings* during the three phases (the *joys* of sharing and self-discovery, the *unsettling feelings* that are the result of *dissonance* created by the design of difficult *questioning* which challenges the assumptions held by a group or an individual *feelings*).

The implications for experiential learning are that the seven core modes of experiencing (Figure 1) offer a design framework that promotes the inclusion of a wide range of experiential activities. Within each mode it is the active 'verbs' that point to the experience designs. *Doing* might for example involve

undertaking an expedition, the design and implementation of an experiment, the *production* of databases, *creating* a reflective photo log (See Beard & Rhodes, 2002), a video diary, a radio programme, or the *choreography* of a dance routine. A s*ensing* experience might involve the experience of *manipulating* objects (*touching*, *rotating*, *handling*) or other materials (to create new *thinking*), or the *observation* (*seeing*) of a presentation or event, or *listening* to (*hearing*) a recording and *taking notes*. *Social interaction* might involve group *conversations* (*social belonging* mode of experiencing) that can also generate new abstract concepts (*thinking mode of experiencing*), and difficult *questioning* and *dissonance* might challenge assumptions held by a group, or an individual, leading to unsettling *feelings* (*feelings* mode of experiencing). In practice all these core modes are interactively intertwined in a complex experiential fluidity. An important design skill is the ability to understand how the experiences are put together, to create the overarching *shape* and *flow* of the whole experience (Beard, 2022).

Conclusion

This chapter has described the evolutionary roots of experiential learning though only the more prominent contributions are outlined due to space limitations (for a more extensive coverage, see for example Smith & Knapp, 2011). What has been revealed is that experiential learning is a contested term, often with contradictory meanings. Long ago, philosophers noted the importance of learning by doing, and they debated how we can know and make meaning of the world. Late 19th century educational concerns about the need for more rigorous, scientific, child-centred teaching methods within school classrooms, contributed to new thinking about experiential education. Outside the classroom there were calls for more holistic approaches to education grounded in adventure and environmental education (Veevers & Allison, 2011). In addition, conversational reflection on past experiences in adult group learning processes within organisational and management workshops in the 20th century gave rise to a focus on experiential learning in adult education. More recently there have been calls for a broadening of understanding of experiential learning. Fenwick (2003) for example suggests the adoption of a more diverse range of theoretical orientations, whilst Roberts (2012) outlines the diverse 'currents' that exist in the flowing river of experiential education. Over time, new contributions have led to an increasingly complex conceptualization of experiential learning in terms of both the theoretical foundations and the design of effective practice. To return to Saddington's (1999) tree metaphor, the full extent of the ever changing mass of entangled roots of experiential learning may never be fully exposed. This abbreviated introduction to experiential learning has necessarily omitted a great deal of detail. Indeed, *experience* is a term that, as historian Martin Jay suggests in his book *Songs of Experience,* 'exceeds concepts and even language itself' (2005, p. 5). The more we know about experiential learning, the more we recognize that there is much more still to understand, and the more we participate in experiential learning, the more we learn about it by experiencing it for ourselves.

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