



Deakin Crick, R. E. (2012). Deep Engagement as a complex system: identity, learning power and authentic enquiry. In C., S. Reschly, & C. A. Wylie (Eds.), *Handbook of Research on Student Engagement*. Springer, New York. 10.1007/978-1-4614-2018-7_32

Link to published version (if available):
[10.1007/978-1-4614-2018-7_32](https://doi.org/10.1007/978-1-4614-2018-7_32)

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Deep Engagement as a Complex System: Identity, Learning Power and Authentic Enquiry

32

Ruth Deakin Crick

Abstract

This chapter develops a definition of engagement which is underpinned by a participatory enquiry paradigm and invites an exploration of patterns and relationships between variables rather than a focus on a single variable. It suggests that engagement is best understood as a complex system including a range of interrelated factors internal and external to the learner, in place and in time, which shape his or her engagement with learning opportunities. The implications of this approach are explored first in terms of student identity, learning power and competences and second in terms of student participation in the construction of knowledge through authentic enquiry. Examples are used to illustrate the arguments which have been generated from research into the theory and practice of Learning Power and from the Learning Futures programme in the UK and Australia. The chapter argues that what is necessary for deep engagement in the twenty-first century is a pedagogy and an assessment system which empower individuals to become aware of their identity as learners through making choices about what, where and how they learn and to make meaningful connections with their life stories and aspirations in authentic pedagogy. In this context, the teacher is a facilitator or coach for learning rather than a purveyor of expert knowledge.

Introduction

The focus in education policy in the last two decades on measuring and raising academic standards has increased the attention of policy makers

and leaders on teaching and the acquisition of knowledge, skills and understanding predetermined by national curricula and assessed against ‘standards’. Essentially the process is ‘top down’ – students are recipients of predetermined knowledge sets and the task of teachers is to make the experience as engaging as possible for young people. Whilst this ‘delivery’ model works for some, particularly students whose social and cultural capital enables them to ‘buy in’ to this agenda, for too many there is increasing disengagement which

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manifests as either passive compliance or more active rejection of the status quo (Wehlage & Rutter, 1986). The compliant disengaged may not be noticed unless they are at a critical borderline in terms of the school's target outcomes, but active rejecters of the status quo vote with their feet, causing considerable political concern. The focus on outcomes concentrates pedagogical attention on the public and measurable aspects of learning. Whilst this is important, if it is at the expense of the personal and less easily measurable aspects of learning, such as learning identity and the dispositions, values and attitudes necessary for students to be able to take advantage of particular learning opportunities, then there is an impact on the quality of student engagement. Engagement in the form of compliance with a particular school and family culture may yield learning that is fragile and dependent, with a passive acceptance and memorisation of rules, concepts and information and ways of doing things transmitted in traditional ways. Such 'passive' engagement does not equip the learner to cope when things go wrong, or are no longer straightforward, or when knowledge needs to be applied in complex situations or integrated into a personal narrative. In contrast to this, deep engagement in learning requires personal investment and commitment – learning has to be meaningful and purposeful in the life of the learner and this is not procured simply by external demands (Haste, 2001).

Worldview Challenges

Underpinning these issues of student engagement are two key 'taken for granted' worldview issues. The first is an epistemological one, to do with the nature of knowledge and how human beings come to know – that is, to encounter and appropriate existing funds of knowledge and to generate and re-formulate knowledge in new contexts. The second is anthropological, to do with the nature of the person who is learning – and how he or she develops a sense of self, learning, identity and purpose in different sociocultural contexts. Educational practices are shaped by paradigmatic views of both knowledge and what it means to be

human – and thus contemporary approaches to student engagement in learning reflect these worldviews. Bottery's (1992) analysis of four major Western educational ideologies demonstrates how each has a differing view of the child, the teacher, the nature of knowledge, assessment and purpose of schooling. In the intervening two decades since Bottery's analysis, a dominant ideology influencing approaches to the reform of education combines managerialism (or the 'new public management') and public choice theory (Aucoin, 1990; Self, 2000). For Goldspink (2007b, p. 77), managerialism is an application of managerial method to public institutions and public choice theory is an extension of the logic of economic markets to administrative and political exchange (Stretton & Orchard, 1994; Udehn, 1996). This ideology, combined with curricula shaped by traditional subjects, with underlying assumptions of scientific reductionism, leads to a tendency towards what Perkins (2010) describes as 'elementitis'. This is a way of approaching complexity by focusing on the elements rather than the whole, or what Darling-Hammond (1997) described as a 'piecemeal curriculum', or Langer (1989) as 'mindless' education.

It is perhaps not surprising in this context that studies of engagement in learning have often focused on elements rather than the whole. Fredricks, Blumenfeld, and Paris (2004) summarise their review of engagement by suggesting that the individual types of engagement (behavioural, cognitive, emotional) have 'not been studied in combination, either as results of antecedents nor as influences on outcomes' and that research has tended to use variable-centred rather than pattern-centred techniques, cross-sectional rather than longitudinal. In other words, studies have focused on particular elements of engagement, and few, if any, have attempted to look at engagement from the perspective of all the relevant elements and the patterns and relationships between them. The result is that we have little information about the interactions between different aspects of engagement and little information about the development and malleability of engagement over time (Fredricks et al., 2004, p. 87). If engagement is a multidimensional construct, influenced by place,

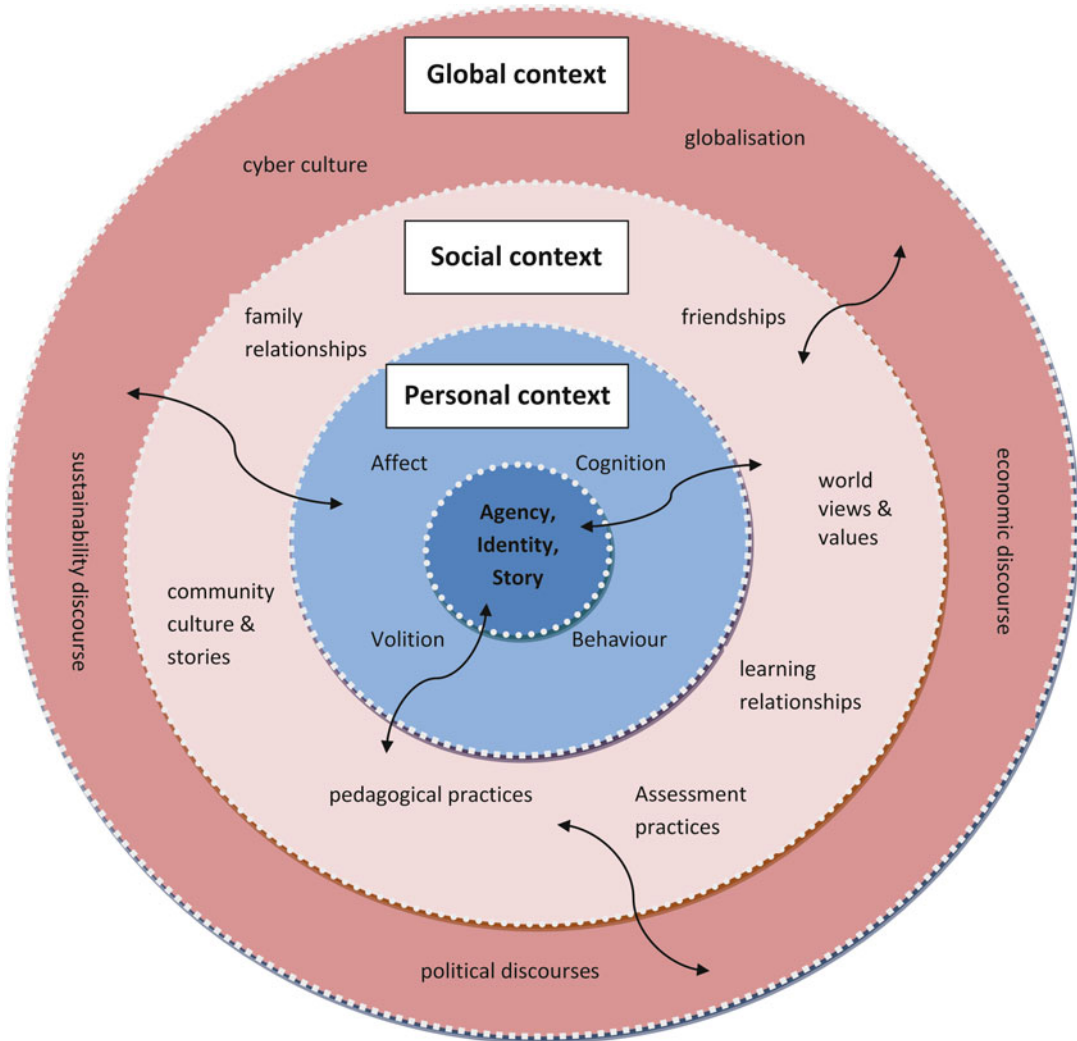


Fig. 32.1 Understanding engagement in learning as a system of systems

time, cultural and social context, as well as factors internal to the person, then it follows that it is important to understand the complex and dialectical relationships between the relevant aspects and to understand engagement as a complex system of systems, including systems internal to the student (such as motivation, agency, meaning making and identity) and in the environment (such as pedagogy, management of learning and culture). Figure 32.1 sets this out in diagrammatic form.

In this chapter, I first explore a definition of engagement which is underpinned by a participatory enquiry paradigm which invites an exploration of patterns and relationships between variables

(such as assessment practices and motivation for learning) rather than a focus on a single variable (such as *only* cognitive engagement). Next I explore the implications of this in two ways: first for learning – in terms of student identity, learning power and competences; and second for curriculum – in terms of student participation in the construction of knowledge. I will illustrate my argument with empirical resources generated from two sources. First is the 10-year ‘ELLI’ research programme (www.vitalpartnerships.com), which has explored and examined the development of engaged learners who understand and are able to deploy their own learning power and the implications for

pedagogy, using the Effective Lifelong Learning Inventory (ELLI), a self-report inventory designed to assess a person's learning power. The more recent Learning Futures programme in the UK with its innovative school level practices aimed at increasing student engagement in learning is the second source. The Learning Futures programme was funded by the Paul Hamlyn Foundation, in partnership with the Innovation Unit and worked with a cluster of 15 schools to develop a model of deep engagement in learning (Innovation Unit 2008).

These two programmes of professional development and research, generated from different sources, have involved several hundred teachers and tutors and several thousand learners. The focus of the ELLI programme has been on the dynamic assessment of learning power and ways in which teachers and schools can progressively hand over responsibility for learning to students (e.g., Deakin Crick, 2009a; Deakin Crick & Grushka, 2010; Deakin Crick & Yu, 2008; Goodson & Deakin Crick, 2009; Jaros & Deakin Crick, 2007). The focus of the Learning Futures programme has been on the organizational conditions in schools which support engagement, including enquiry-based learning, coaching and mentoring, school as base camp and school as learning commons (Deakin Crick, Jelfs, Ren, & Symonds, 2010; Paul Hamlyn Foundation & Innovation Unit, 2010).

Deep Engagement

Within the literature, it is common to distinguish between engagement measured by conformance or compliance (e.g., attendance), academic engagement (e.g., commitment to a limited range of academic performance criteria or passing the tests) and intellectual engagement. The former is concerned with whether students conform to the rules of an institution – it has little to say about processes or outcomes of learning. The second concentrates on a very limited subset of outcomes of schooling, whilst the last implies a more complete concern with learning process and outcomes at the whole person level. This last approach is reflected in current policy goals for education in

many countries and is the approach advocated here because it enables a fuller theorisation about the person who is learning, his or her development as a person in the community and the ways in which proximal and distal social environments influence that learning, which is important for understanding deep engagement.

Deep engagement in learning is particularly important in the fluid, networked and global twenty-first century world for two reasons, as Bauman eloquently argues. First, the contemporary search for identity is 'the side-effect and by-product of the combination of globalising and individualising pressures and the tensions they spawn' (Bauman, 2001, p. 52) and, second, 'educational philosophy and theory face the unfamiliar and challenging task of theorising a formative process which is not guided from the start by the target form designed in advance' (Bauman, 2001, p. 139). We need a theory and practice of engagement in learning which facilitates the formation of identity and combines this with processes for scaffolding and supporting the processes of knowledge creation in a world where relevant outcomes can no longer be predetermined.

When a learner is deeply engaged in learning, he or she is an intentional participant in a social process which is taking place over time. Seely Brown and Thomas (2009, p. 1) argue that we need to embrace a theory of 'learning to become' in contrast to theories of learning which see learning as a process of becoming *something*. They say that the twentieth century worldview shift from learning as transmission to learning as interpretation is now being replaced by learning as participation – fuelled by structural changes in the way communication happens through new technologies and media. Participation is embodied and experienced – and embraces tacit as well as explicit knowledge (Polanyi, 1967).

The potential revolution for learning that the networked world provides is the ability to create scalable environments for learning that engages the tacit as well as the explicit dimensions of knowledge. The term we have been using for this, borrowed from Polanyi is *indwelling*. Understanding this notion requires us to think about the connection between experience, embodiment and learning. (Thomas & Seeley Brown, 2009, p. 10).

This way of knowing is fundamentally experiential (Heron & Reason, 1997; Reason, 2005) and positions the person, as learner, as part of a whole in relation to fellow humans and the natural world. Experiential knowing – through direct encounter – is the distinguishing feature of a participatory enquiry paradigm and is the foundation for the development of critical subjectivity (Heron & Reason, 1997).

The experience of deep engagement then is multidimensional and implies participation and experience which leads to personal commitment and investment in learning over time (Fredricks et al., 2004, p. 82). This form of engagement can be understood as ‘deep’ in that it is prolonged, purposeful and enacted in a sociohistorical trajectory. It inevitably includes an ethical dimension because it is about how a person embodies and enacts their learning in the world. The first part of a working definition of deep engagement in learning, or our way of recognising it when it happens, is when a learner becomes personally absorbed in and committed to participation in the processes of learning and the mastery of a (chosen) topic, or task, to the highest level of which they are capable. This means that he or she will be aware of, and attend to, the processes of learning, rather than just the outcome, and will utilise his or her own power to learn to serve his or her chosen purpose – developing his or her learning identity and mindfully using the scaffolding provided to pursue the journey towards his or her chosen outcome. He or she will increasingly take responsibility for his or her own learning trajectory, and his or her learning will be meaningful to him or her, both in his or her life beyond the classroom and in the trajectory of his or her particular life story.

This definition of engagement goes beyond the more recent consensus which has emerged around the integration of the cognitive, affective and behavioural elements of engagement (Fredricks et al., 2004; Guthrie & Wigfield, 2000) because it assumes a critical sociocultural context in which students identify value and purpose in their learning and take responsibility as agents of their learning, embodied in a particular context in place and over time (Goodson, 2009; Goodson

& Beista, 2010; Goodson & Deakin Crick, 2009). It is critical because it involves ‘humanisation’ (Freire, 1972) and emancipatory rationality (Habermas, 1973) and is embodied and located within the personal and communal narratives through which human beings seek and make meaning; thus, it is also ethical. Deep engagement leads to what Bateson (1972) describes as third-level learning, which involves personal transformation – rather than only repetition (primary learning) or learning to learn (secondary learning).

Engagement and Motivation for Learning

It is a *sine qua non* that in order to be engaged in learning, a person needs to be motivated to learn – to have a ‘desire to engage’ of sufficient quality that it drives the individual to take advantage of particular learning opportunities. Motivation thus precedes engagement. In a systematic review of the impact of testing and assessment on students’ motivation for learning, Harlen and Deakin Crick (2003a, 2003b) identified 19 studies from a total collection of 183 which explored, through different research designs, the impact of assessment on students’ motivation for learning. Overall, the review suggested that summative testing and assessment can unwittingly depress motivation for learning and that motivation itself is a complex construct which should be an outcome of education as well as a precedent. The study argued that motivation for learning is influenced by a range of psychosocial factors both internal to the learner and present in the learner’s social and natural environment. The American Psychological Association’s Learner Centred Principles (1997) focus on factors that are internal to and under the control of the learner, as well as taking account of the environmental and contextual factors which interact with those internal factors (McCombs & Lauer, 1997). Of these 14 principles, three deal directly with motivation for learning. The first of these has to do with the motivational and emotional influences on learning, which are affected by the learner’s emotional state, beliefs, interests,

goals and habits of thinking. The second refers to the learner's creativity, higher-order thinking and natural curiosity that contribute to intrinsic motivation to learn. Intrinsic motivation for learning is stimulated by tasks of optimal novelty and difficulty, relevant to personal interests and providing for personal choice and control. The third principle has to do with the effect of motivation on extended learner effort and guided practice – without motivation to learn, the willingness to exert this effort is unlikely without coercion. These three broad principles indicate the range of factors that have to be taken into account when considering motivation for learning. They have to do with the learner's sense of self, expressed through values and attitudes; with the learner's engagement with learning, including their sense of control and efficacy; and with the learner's willingness to exert effort to achieve a learning goal.

None of the studies in this review dealt with all the variables included in the concept of motivation for learning, but the reviewers grouped them according to the particular outcomes that were investigated in terms of motivation for learning. Expressed from a learner's perspective, these three groups were as follows:

1. What I feel and think about myself as a learner
2. The energy I have for the task
3. How I perceive my capacity to undertake the task.

This tripartite construction of the term motivation for learning was developed in response to the range of empirical studies on aspects of motivation for learning drawn from around the world. It goes beyond a behavioural definition and draws attention to the 'personhood' and the identity of the learner. This attention to the self of the learner is important because the capacity of the individual to become the 'author' of their own learning is another defining feature of both motivation for and deep engagement in learning. The 'author' metaphor implies intentional self-direction (Black, McCormick, James, & Pedder, 2006) and the creation of a unique story. However, beyond this, and relevant to engagement, are the lateral and temporal connectivities which shape a person's sense of self, particularly personal and communal stories and networks of relationships

(Bloomer, 2001; Bloomer & Hodkinson, 2000). Attending to the self raises challenges for contemporary pedagogy, particularly within a high accountability, outcomes-focused framework; the theoretical and practical implications are significant. Finding ways of enabling learners to make meaningful connections between their own life story, the world in which they live, their particular community and tradition and the processes and content of their learning in school requires a personalised and local approach and learning and assessment strategies which can move easily between personal and public domains. In the following sections, I begin to explore some of the aspects of learning which are relevant to engagement, using the metaphor of learners as 'authors' heuristically. To be an 'author' of one's own learning suggests that (a) there is an agentic self who is producing the 'texts' of learning, (b) there is a coherent story to be told and (c) there is a context in time and place within which the learning is taking place.

Elements of Deep Engagement in Learning

Perezhivanie: Resources of the Self

An author does not arrive at the creation of a story empty handed. Rather he or she has already an idea to pursue, drawn from his or her experience and interest. In the same way, the learner arrives at a learning opportunity already possessing a way of knowing and being in the world which is the sum of their experience to date. Vygotsky (1962/1934, 1978) described this as 'Perezhivanie', the term used for accumulated lived emotional experience, including values, attitudes, beliefs, schemas and affect. For Vygotsky, *Perezhivanie* is the process through which interactions in the 'zone of proximal development' are perceived by the learner. The 'zone of proximal development' is entered when a learner and a more experienced other participate in a relationship of 'cognitive scaffolding' through which the learner becomes more capable of achieving particular learning outcomes through

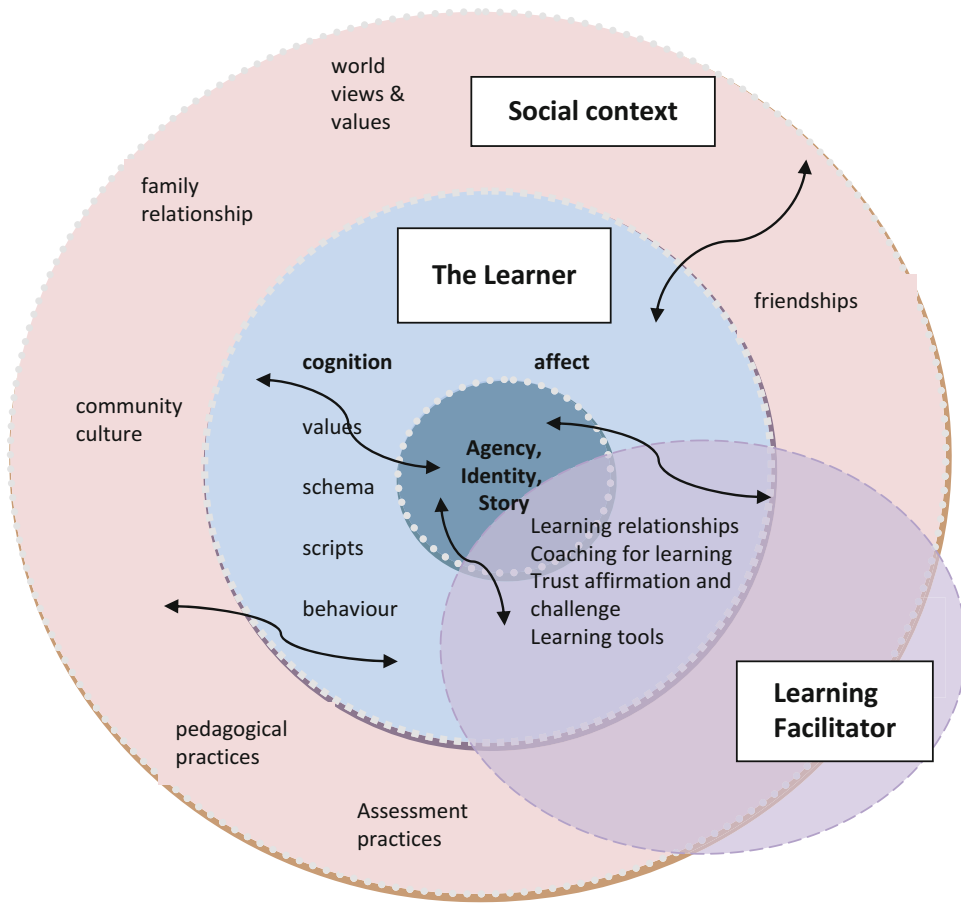


Fig. 32.2 Perezhivanie and the zone of proximal development

modelling, imitation and repetition. What a learner brings to learning in this context is deeply personal and unique, although necessarily experienced and accumulated over time in the context of relationship, community and tradition. Mahn and John-Steiner (2002) argued that by expanding the scope of the examination of the zone of proximal development, we can understand it as a complex whole, a system of systems which includes the interrelated and interdependent elements of participants, environments, artefacts (such as computers or tools) and context. In order to develop a theoretical purchase on this concept of 'Perezhivanie' and explore further its implications for engagement in learning, we will break it down into 'identity', 'story' and 'values, attitudes and dispositions' (see Fig. 32.2).

Identity: The Missing Link

Sfard and Prusak (2005) suggest that the notion of identity is the missing link between learning and its sociocultural context.

We believe that the notion of identity is a perfect candidate for the role of "the missing link" in the researchers' story of the complex dialectic between learning and its socio-cultural context. We thus concur with the increasingly popular idea of replacing the traditional discourse on schooling with the talk about "construction of identities" (Lave & Wenger, 1991, p. 53) or about the "longer-term agenda of identity building" (Lemke, 2000; Nasir & Saxe, 2003). (Sfard & Prusak, 2005, p. 15).

For Sfard and Prusak, identities are stories about persons. They define identities as 'collections of stories about persons that are 'reifying,

endorsable by others and significant' and argue that a person's stories about themselves are profoundly influenced by the stories that important others tell about that person. Identities are discursive counterparts of one's lived experiences – they are stories which are told and re-told and which are open and susceptible to change. The importance of this for understanding engagement in learning is that positive identity talk – that is, reifying statements such as 'I am resilient', or 'You are creative' – makes people more able to engage with new challenges or opportunities in terms of their past experiences. Identity as a discursive activity becomes an important bridge between the lived experience a person brings to the learning encounter and the movement forwards towards the construction of a new identity. Since all learning includes a knowledge content – learning is always about some new knowledge of some sort – it follows that the process of knowledge construction can also scaffold identity formation.

Sfard and Prusak go on to operationalise their definition of identity for learning by describing the gap between a person's actual identity and their designated identity:

The reifying, significant narratives about a person can be split into two subsets: actual identity, consisting of stories about the actual state of affairs, and designated identity, consisting of narratives presenting a state of affairs which, for one reason or another, is expected to be the case, if not now then in the future (2005, p. 18).

For the learner as 'author', the space between the 'actual' and the 'designated' is a powerful site for engagement and another way of conceptualising the zone of proximal development. Pedagogy for engagement must first acknowledge this space and second facilitate the learner in actively and critically narrating the terrain it represents. Such pedagogical skills of facilitation are more akin to coaching than to traditional teaching or mentoring because the purpose is to facilitate the learner to become the author of his or her own learning journey rather than to transmit information or know-how from an expert to a novice. Where a person is severely disengaged from learning – for example, a young offender in prison for violent crime who may be 'stuck' with their actual

identity – then the facilitation task begins to look more like counselling because the task will be to explore those factors in a person's story which block movement forwards and to help them to re-imagine a designated identity: who they want to become. This relates to knowledge construction in that the starting point for engagement is interest in *something* such as an object, or artefact, or event or place. To be interested in something, that something has to have meaning to the 'learner' to connect to their life story in a particular way. Building on that interest (which is personal and idiosyncratic) are certain thinking and learning capabilities such as observing, generating questions or more sophisticated knowledge mapping. These are all activities undertaken by the learner in the process of knowledge construction about something and engagement in the task of knowledge construction is fuelled by its meaningfulness to the learner.

Personal and Community Stories

Within this participatory framing of learning, the individual learner is not a 'monad' or an 'island' but is defined and realised in relation to other people. He or she constructs meaning through time in the form of stories which are developed in the context of relationships, through telling, witnessing and retelling. A person's 'reifying, endorsable and significant stories', which constitute his or her identity, are developed discursively in relationships and community. This discursive process inevitably draws on the wider community stories and worldviews that shape the 'oughts and permissions', the symbols and values and power structures in a particular community. Such stories are particular to time and place, embodied, told and re-told locally. They shape the habits, traditions and rituals of learning – the dispositions, values and attitudes which a learner brings to each encounter with new learning opportunities. For example, in a community where unemployment is historical and widespread, young people growing up are likely to imbibe the wider community story of resignation and low aspiration and internalise it as part of their own actual

and designated identity. Their identity as learners – that is, their sense of confidence to learn and change and their awareness of their own power to learn – is therefore a key vehicle for self-directed change, aspiration and movement towards designated identity.

Personal Qualities: Values, Attitudes and Dispositions for Learning

The process of moving from a particular identity towards a designated one is a discursive activity. In Vygotskian terms, it is also scaffolded – the quality of relationships and the language used within this discursive activity are of crucial importance. As well as language about the content of learning, it is the language of the values, attitudes and dispositions for learning which the learner needs in order to engage with the task of change. The term ‘disposition’ is not sufficient to describe this because although it is in part a rich progeny of Aristotelian ‘hexus’ and connects with Bourdieusian ‘habitus’, it is all too often reduced simply to a ‘tendency to behave in a certain way’. What is being described here is a set of personal qualities or orientations towards learning which are understood and manifested in thought, feeling and action and derived from values and attitudes – sets of beliefs with affective loading. The term ‘learning power’ is more appropriate because it incorporates values, attitudes and dispositions and in addition invokes the important concept of agency and use.

For example, say a learner has chosen to engage with learning about volcanoes. His or her designated identity is to become ‘someone who knows a lot about volcanoes’. To become that designated person, he or she will need to utilise his or her *curiosity* in uncovering information, he or she will need to be *creative* in order to devise ways of understanding how volcanoes work and *resilient* in the face of challenge. He or she will need to map new knowledge to what he or she already knows (*meaning making*) and have a sense of the extent and purpose of the task and what resources he or she needs to deploy (*strategic awareness*). He or she will need a level of

confidence in his or her capacity to move towards his or her designated identity (*changing and learning*) and to utilise his or her social resources to optimise his or her learning (*learning relationships*). Such personal qualities constitute *learning power* – empirically derived clusters of values, attitudes and dispositions which are necessary for an individual’s engagement with learning opportunities.

These seven dimensions emerged from successive factor analytic studies (Deakin Crick, 2004; Deakin Crick, Broadfoot, & Claxton, 2004; Deakin Crick & Yu, 2008). They have been constituted into the ELLI, a self-report questionnaire designed both to measure a person’s learning power at any moment in time and to stimulate personal change through providing a framework for a coaching conversation between a learner and teacher/facilitator. The online questionnaire produces a spider diagram, with no numbers, which represents what the individual says about themselves in terms of the seven dimensions of learning power. Ten years of studies with school-age children, students in further and higher education and adults in the workplace have demonstrated the value of awareness of these dimensions of learning power in stimulating engagement in learning.

Learning Power and Engagement at Work: An Illustration

The importance of the relationship between personal learning power and engagement is particularly stark in remote indigenous communities in northern Australia where there is a powerful legacy of marginalisation and the systematic disenfranchisement over 200 years of a particular way of life with its unique ways of knowing, being and relating, traditions and rituals. As an extreme example (alas not the only one), it has explanatory power for mainstream pedagogy. What follows is an explanation of how learning power can form a bridge between individual and community identity and engagement in formal learning opportunities and then a particular example of their application.

In order for young people in these communities to become authors of their own learning, and to articulate positive designated identities, there is a pedagogical imperative for the facilitation of authentic connections between these *particular* ways of knowing, being and doing in *particular* communities and the discursive tasks of identity formation and the generation of learning power. Metaphor, symbol, image and narrative are powerful ways of forming a bridge between two worlds, between a particular culture and learning power (Deakin Crick & Grushka, 2010; Grushka, 2009). They are epistemologically rich because they form a link between two worlds – the experience and ‘Perezhivanie’ of the learner and his or her community and ideas and practices for learning and (re) engagement in public ‘curricula’. Metaphor, image and story can create conditions for the development of deep learning which carries the qualities of the development of critical subjectivity (Heron & Reason, 1997) through generating and linking experiential, presentational, narrative and propositional knowledge.

In the twenty-first century, even the most remote communities are both local and global – cyberspace is ubiquitous. Remote and relatively underdeveloped communities are connected to cyberculture through mobile technologies. The shaping power of cyberspace creates both challenges and opportunities for identity construction and engagement in learning. The sheer complexity and volume of communication and information overwhelm traditional ways of organising and communicating knowledge whilst opening up new opportunities and necessities. Cyberspace challenges traditional ways of living and learning whilst at the same time enabling their reconstruction and reformulation because it makes knowledge and information widely available and provides new tools and artefacts for participation which can transgress geographical and economic boundaries. For example, the ELLI tool is stored online on cloud servers, in a secure repository called ‘The Learning Warehouse’ and local organisations use a ‘portal’ to access the tools and ideas, whilst a ‘trade entrance’ enables researchers with appropriate permissions to access anonymised data for analysis.

Learning Power and Engagement in Indigenous Australian Communities

The following example, drawn from research and development projects in Northern Territory, Australia, provides a graphic illustration of the power of cyberspace to enable a remote indigenous community to connect their traditional culture with the ideas and practices of learning power drawn from research. Damien is a teacher in Gapuwiyak School who has led the community in identifying six birds from the Yolngu sacred songlines, and a seventh bird, which is not sacred, which function as metaphors and symbols for the seven dimensions of learning power. For example, the Sea Eagle, or Djert, was chosen to represent the quality of critical curiosity, and the Emu, or Wurrpan, was chosen to represent the quality of strategic awareness. After long discussions with the whole community, these seven birds were ratified by the elders, painted in original indigenous art forms and used to communicate about learning power with the community. In this picture, Damien has copied his own learning power profile from the computer onto a whiteboard and attached the original paintings of the seven birds at the relevant points of his own spider diagram. He is facilitating his community in understanding learning power as part of the discursive act of identity formation – and giving an invitation to the community to participate in learning, to re-create constructive learning identities, which will facilitate the construction of new designated identities (Deakin Crick, Grushka, Heitmeyer, & Nicholson, 2010) (Fig. 32.3).

The Relationship Between Learning Power and Engagement

The model of deep engagement described in this chapter is one which connects the learner’s sense of identity and agency with their personal learning power, and these are utilised by the learner in a meaningful process of knowledge construction which leads to active engagement in the world. These have been referred to elsewhere as four stations in the learning journey (Deakin Crick, 2009b).



Fig. 32.3 Identity formation as a discursive community activity

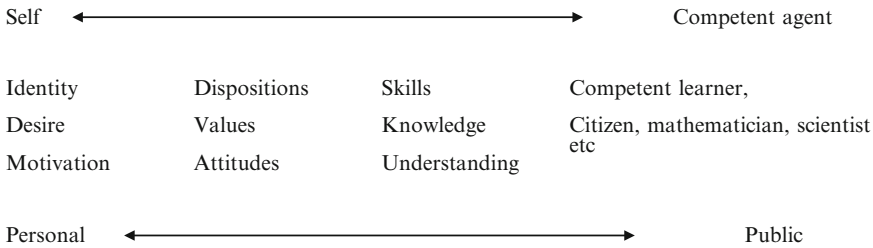


Fig. 32.4 Four pedagogical moments for deep engagement

They represent four pedagogical moments which require attention for deep engagement in learning (Fig. 32.4).

Research into learning power suggests that its pedagogical value is important for engagement because self-assessment of values, attitudes and dispositions for learning (learning power) provides a framework for a coaching conversation which both reflects ‘backward’ to the individual’s learning identity whilst also providing a framework for scaffolding the journey forwards towards the construction of new knowledge and its meaningful application. This is a pathway for the development of critical subjectivity since it engages experiential, presentational, propositional and practical ways of knowing as a pathway towards intelligent and principled participation

in the world (Heron & Reason, 1997). The following sections address key pedagogical themes which are important in this process: language and place, coaching relationships and conversations and scaffolding the process of knowledge construction.

Language and Place

The research into learning power provides a language which can be appropriated differently in diverse communities, in diverse places, and can be used to conduct ‘identity talk’ about learning and about how a person might choose to engage with learning opportunities. If identity formation is a discursive activity, then it follows that language is

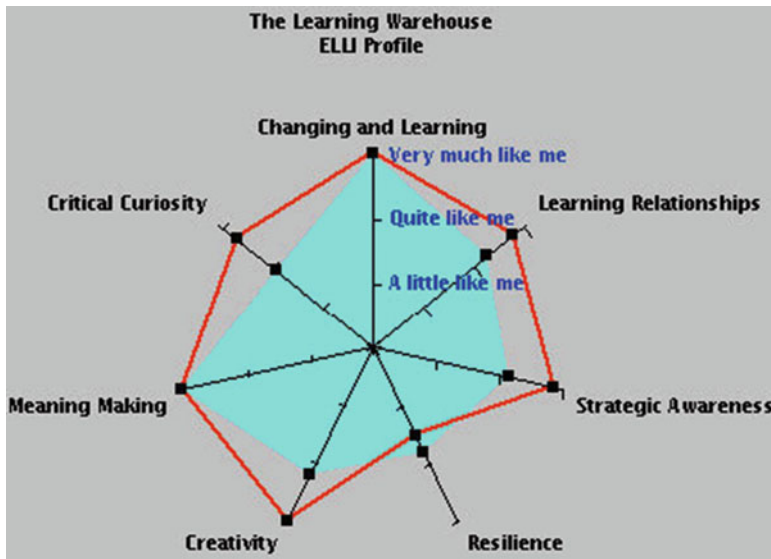


Fig. 32.5 An individual learning power profile with pre- and post-measures

required as a medium for that discourse. The richer the language and the more it reflects, harmonises and critiques the community's stories, which shape the individual's, the more useful it is in creating the conditions for engagement. What Damien was doing in the picture, extending the verbal language of learning power through art, was creating a visual language which connects the deep experiential knowledge of his people with the concepts and ideas of learning power. Engagement in learning is always placed and particular (Deakin Crick & Grushka, 2010; Deakin Crick, Grushka et al., 2010; Goodson & Deakin Crick, 2009). In this example, it was significant simply to be having these conversations with people who have been traditionally disenfranchised from formal western schooling traditions. The first stage is to open up the possibility of learning and change – the next step is to utilise that hopefulness, through coaching conversations in the context of trustful relationships so that the individual can begin to identify and appropriate more formal learning opportunities.

Framework for a Coaching Conversation

A learning power profile provides a framework for such coaching conversations which move in

the zone between the identity of the learner and a particular negotiated learning outcome. The fact that the assessment is based on a measurement derived from a self-report questionnaire is important because it reflects back to the individual what they have said about themselves. The feedback (Fig. 32.5) is in the form of a spider diagram without numbers, and the purpose is for the learner and a coach or facilitator to reflect on the shape, how it connects to lived experience and how it might be changed, or on the changes to the shape after a second assessment event. The shaded inner spider diagram represents the pre-test measure from the self-report questionnaire, and the post-test measure is the single, outer line. In this case, the individual's second self-assessment shows an increase in critical curiosity, creativity, learning relationships and strategic awareness. This was a young person in higher education in Bahrain, who had experienced coaching conversations with a tutor about her spider diagram, which included the formulations of targets – what the individual wanted to change and why and how she could achieve that change in the highly academic context in which she was learning.

Feedback alone is not sufficient for deep engagement. For deep engagement, the assessment event needs to be located within a pedagogy

which attends to ‘identity’ and ‘authorship’ in learning, in a community which operationalises both a shared language with which to describe learning power and pedagogical skill in coaching as well as teaching. What is necessary is a pedagogy and an assessment system which empowers individuals to become aware of their identity as learners through making choices about both what, where and how they learn, and to make meaningful connections with their life stories and aspirations in authentic pedagogy. In this context, the teacher is a facilitator or coach for learning, rather than a purveyor of expert knowledge. The quality of trust is a core resource for such coaching (Bryk & Schneider, 2002).

Scaffolding the Process of Knowledge Construction

The third theme is that the dimensions of learning power provide a framework for the journey from a chosen starting point, where the self is engaged, towards a negotiated learning outcome. The most powerful engagement for learning occurs where learning is authentic, active and enquiry led (Newmann, 1996; Newmann, Marks & Gamoran, 1996). The first condition for this is when the learner is personally involved in selecting the focus for their enquiry which has meaning and relevance to them in their lives beyond the classroom and where the learner is the ‘author’ of their own learning journey. The second is where learning is designed as enquiry: the co-construction of knowledge through disciplined enquiry which involves building on a prior knowledge base, striving for in-depth understanding and expressing findings through elaborated communication. The third is when the learner is actively engaged in the production of discourse, products or performances that have relevance to learners beyond school and require more active engagement than simply repetition, retrieving information and memorisation of facts or rules (Deakin Crick, Jelfs et al., 2010). These findings from the Learning Futures project, drawing on both quantitative and qualitative data, are consistent with the research in authentic pedagogy developed in

Chicago by Newman and colleagues (Newmann, 1996; Newmann & Wehlage, 1995; Newmann et al., 1996) and the related research in Australia into quality teaching (Goldspink, 2007a, 2007b, 2008; Ladwig & Gore, 2004; Ladwig & King, 1991, 2003).

The dimensions of learning power contribute to approaches to enquiry which are authentic and active because they bring a structure to learning which is assessable at key stages in the process and facilitates the process of identity construction. Research and development studies focusing on the learning power dimensions and enquiry identified eight distinct stages in a sequential but iterative and cumulative enquiry pathway which map onto four key aspects of pedagogy for engagement: the self who is learning, the personal learning power necessary for engaging with learning opportunities; the construction of knowledge and its application in the real world (Deakin Crick et al., 2007; Jaros & Deakin Crick, 2007). These begin with the personal, local and experiential choice of the learner and move from there, invoking an increasingly complex sequence of thinking and learning capabilities, to an encounter with pre-existing funds of knowledge which constitute the formal curriculum. The learner is coached in that journey by a facilitator/coach who supports him and provides prompts, guidance and resources at key points. The sequence begins with the person of the learner and her choice. It is described in Fig. 32.6 in table form, then in narrative.

First: Choosing: The student is encouraged to choose an object or place that fascinates them. Careful, ‘hands-off’ prompting and guidance may be needed from the facilitator/coach to ensure that personal interest is strong and authentic. The rest of the process will be highly influenced by the integrity of this choosing process. Sometimes the ‘object’ turns out to be a person or event – it is its susceptibility to observation and the strength of the student’s interest and engagement that are important.

Second: Observing/describing: The learner observes and describes the chosen object/place,

Fig. 32.6 Sequence of stages in personalised enquiry

Eight steps-for framing pedagogy	
Thinking and Learning Capabilities	
Choosing and deciding	PERSONAL CHOICE
Observing and describing	OBSERVE AND DESCRIBE
Questioning	GENERATE QUESTIONS
Storying	UNCOVER NARRATIVES
Mapping	CREATE KNOWLEDGE MAP
Connecting	CONNECT TO EXISTING KNOWLEDGE
Reconciling	RECONCILE WITH ASSESSMENT PURPOSE
Validating	CONDUCT ASSESSMENT EVENT
Applying	APPLY NEW KNOWLEDGE

both as a separate, objective entity and in relation to their own interest and reasons for choosing it. In this, the learner is developing their sense of personal responsibility. This initiates the cycles of a personal development process which is recorded in a *workbook* and in which the student, tutor and later others participate. It requires the student to develop the critical curiosity and strategic awareness necessary for independent learning, in the context of learning relationships. The student is also developing a sense of himself or herself as a learner who can change and grow over time.

Third: Questioning: The learner starts asking questions: obvious, but open ones, such as *How did it get there? What was there before? Why is it how it is? Who uses it? How and why did they get involved?* He or she is initiating and conducting a process of inquiry and investigation, driven by personal interest and shaped in turn by the answers to his or her own questions. The learner is exercising and developing critical curiosity. All the time, the student is encouraged to reflect on their motivation, reasoning and identity as a motivator of their own learning.

Fourth: Storying: The questioning leads to a sense of narrative, both around the chosen object and in the unfolding of new learning. Historical and present realities lead to a sense of ‘what might be’ both for the object/place and for the learner and their learning. She or he is becoming the author of his or her own ‘learning story’ or journey.

Fifth: Mapping: The learner begins to discern that this ‘ad hoc’ narrative leads in turn to new concepts, propositions and knowledge. Self-referenced learning starts to be related to a wider awareness of the ‘other’. The learning becomes a ‘knowledge map’ which can be used to make sense of the journey and of new learning as it comes into view. The student is ‘making meaning’ by connecting new learning to the ‘story so far’.

Sixth: Connecting: With informed guidance and support from the teacher, the student’s widening ‘map’ of knowledge can be related to existing maps or models of the world: scientific, historical, social, psychological, theological, philosophical... This is where awareness of the diversity of possible ‘avenues of learning’ becomes useful. It requires the tutor or teacher to

act as supporter, encourager and ‘tour guide’ in the student’s encounter with established and specialist sources and forms of knowledge.

Seventh: Reconciling: The student arrives at the interface between their personal inquiry and the specialist requirements of curriculum, course, examination or accreditation. The student’s development as learner enables them to encounter specialist knowledge and make sense of it, in relation to what they already know and in the way they already learn, interrogating it and interacting with it, instead of simply ‘receiving’ it, using the model of learning and ‘knowledge mapping’ skills they have developed through the inquiry. This is where the resilience will be tested, that will have started to grow through the responsibility and challenge of a self-motivated inquiry.

Eighth: Validating: The student can forge links between what he or she now knows and institutional and social structures receptive to it: qualifications, job opportunities, learning opportunities, needs, initiatives, outlets, relationships, accreditation, publication.... This may take the form of a portfolio, presentation or written essay, based on the *workbook*, making explicit both process and outcomes of the inquiry. The learning has met its communicative purpose. The learner has created a pathway from subjective response and observation towards the interface with established knowledge. In doing so, he or she has also achieved life-enhancing personal development by asking and answering such questions as: *Who am I? What is my pathway? How did I get there? Where does it lead me? What were the alternatives? Who helped me and how?*

Ninth: Applying: The student has completed an authentic enquiry about an issue of significance and meaning in his or her life. This might be the solution to a problem, which can now be prototyped and tested, or it might have identified an unfolding employment trajectory or niche or raised citizenship issues which can be addressed in the community. At this stage, the question is: *How do I build on and consolidate this knowledge that I have acquired?* The enquiry is authentic and useful in terms of both content and process.

These sequential but iterative stages of authentic enquiry frame a pedagogy which integrates the identity and personhood of the learner with the process of knowledge construction. Although in practice, they are not linear or strictly sequential – each stage may be revisited in a spiral formation throughout the enquiry project – these are nevertheless key aspects of knowledge construction which frame enquiry from the ‘bottom up’, that is, from the lived experience of the learner in the real world to an outcome which can demonstrate higher-order creative and critical thinking, in contrast to traditional pedagogy which is ‘top down’ and begins with the (prescribed) knowledge itself, where the teacher’s job is to make the experience of acquiring that knowledge as meaningful as possible to the learner. In authentic enquiry, the problems are formulated by the learners themselves – they are seeking to answer questions which they own, rather than find solutions to other people’s problems or questions.

For deep engagement, it is this connection between ‘experiential knowing’ and a ‘knowledge product’ which is crucial. Even where a completely free choice of starting points in enquiry projects is not possible, for example, in some formal educational contexts where ‘coverage of content’ is a political necessity, these stepped processes of enquiry ground and engage the learner in an authentic and active process of learning. Even in these circumstances, teachers can facilitate the sort of authentic choice which connects with students’ experiential knowledge, even though that choice may be bounded by curricular demands. Stepped processes of enquiry can provide a form of *structured freedom* which enables learners to connect their learning with their own identity, story and purpose and thus experience deep engagement. Without authentic choice on the part of the student, there is less likelihood of making these deep connections – and students may not get the opportunity to frame their own questions and formulate authentic problems. Indeed, some forms of project-based learning do not allow for this sort of enquiry at all if they begin with predetermined problems or questions which already have predetermined answers. The danger then is that the learner is more concerned with finding the right answer than formulating a solution.

The key role of the seven dimensions of learning power is that where the learner is aware of their own learning power profile and chooses to take responsibility for developing himself or herself as a learner, then the dimensions of learning power provide scaffolding for negotiating these steps. For example, good choosing requires creativity and questioning requires critical curiosity. Knowledge mapping requires meaning making and strategic awareness and reconciling requires resilience and so on. Reciprocally, the enquiry process provides salient opportunities for building strengths in selected learning power dimensions. There is thus an intimate relationship between learning power (dispositions, values and attitudes) and authentic enquiry-based learning.

Research in the Learning Futures project suggests that this approach represents a substantively different paradigm for learning and schooling from conventional models. In order to realise the potential of engagement in learning that this vision represents, schools have needed to engage in processes of profound change. Authentic learning has been modelled at all levels in the system: student, teacher, school and networks. Such a school is personified by teachers, leaders and a community who take collective responsibility for student learning and work together in professional enquiry which is aligned to schools' authentic goals. The school is characterised by people's openness to learn, willingness to change, professional courage, engagement in disciplined professional enquiry and a shared commitment to a locally owned and defined language for organizational, professional and personal learning (Deakin Crick, Jelfs, et al., 2010, p. 185).

A Narrative Example from Practice

In order to ground these ideas in student language and practice, I shall draw on a piece of narrative data from the Learning Futures project in the UK in which we compiled over 180 hours of student talk about learning in schools which were seeking to be radical in their approach to engagement. This example is particularly useful for illustration and representative of many other students

who were successfully and deeply engaging in their own learning. The school serves an economically deprived community, and 'Craig' himself faced many challenges arising from these conditions. He was 12 and he and his year group were working in a specially framed curriculum slot (of about 7 hours per week) called 'My World', free of prescribed content and framed by authentic enquiry projects. Within this space, the class selected their own focus for their enquiry, using learning power language as scaffolding. In this case, the teacher had used the metaphor of an island where the class were marooned and had to survive on their own, without their teacher. The focus in this project in terms of content was on 'taking responsibility for my own life and learning'. The teacher framed the project, deliberately gave the students responsibility for the selection of content and process and was available to coach and mentor them individually. The project concluded with an authentic assessment event in which groups of students presented their work to each other and community members. In the following excerpt, Craig was being asked what he had learned in his My World project:

Craig: Well .. when we was in our groups, something I learnt really well is my learning relationships and my changing and learning.....Just sometimes ...I used just to go off task. Then something happened, like a spark in my brain or something and all of a sudden I thought I may as well get a good education and do like stuff, don't talk about something I'm not meant to.

Craig: It's just like ... it's given me an experience of like the future. Like if I keep acting like a free child in the future, I'm never going to get anywhere....I think it's kind of a gift like that I can actually develop new skills without acting up or nothing. I reckon yeah, it's a gift.

Interviewer: So if I looked at your map would I see this journey on your map?

Craig: In the forest there's a waterfall and I can't get past it... God gives

Mr M the helicopter, helps me over the waterfall – drops me down to a place I need to be.

Interviewer: If you had to think of the one best thing about My World what would it be? The single most important thing that you value the most.

Craig: The ELLI dimensions

Interviewer: Why is that then?

Craig: It's helped me get a long life.

Interviewer: Helped you?

Craig: Get a long life.

Interviewer: Say a bit more?

Craig: Like I never used to know like all this stuff, like (inaudible) I never knew it existed, like changing and learning and resilience. And as soon as I got it all into my head, I've never ever gave up on stuff I need to reach my goal.

Interviewer: So that's the best thing, because it's given you ...

Craig: Strength to develop skills and get along life easier.

Interviewer: And what ... how does it differ from your other classes then?

Craig: Like French and all that?

Interviewer: Like French and History and ...

Craig: It's like [French and History] just given me reams and reams of facts, but like this has given me like tips, hints and helping me to get a long life easier.

Interviewer: But do you think the facts are important?

Craig: Yes, sometimes I need them.

Interviewer: Does My World help you with the French and stuff?

Craig: Yeah.

Interviewer: Yeah how does it help you with the other stuff then?

Craig: Like French and all that? It helps me with my French to never give up. Helps me to like develop skills with other people – critical curiosity, like to tell ... if they say something and they want you to think it's true, you can actually say it's not ...

This excerpt demonstrates Craig's sense of identity and a movement towards a designated identity. He is moving from someone who was not engaged or focused on learning in school to someone with an emerging vision of himself with a different future. In a previous interview, he talked about seeing people on the streets asking for money and not wanting to end up like that. In this same interview, he talks about himself going to sixth form and getting a good job. It also shows how the language of learning power has enabled him to understand himself and to project forwards towards a particular outcome. His perceptions of the difference between the enquiry approach and the more traditional 'top down' pedagogy are insightful and demonstrate the beginnings of critical subjectivity. He is using experiential and presentational knowing when he describes being stuck on the island by a waterfall that he could not get past, until God gave his teacher a helicopter to help him get to the place he needed to be. This was describing the profound change he has experienced in his engagement in learning in school. He instinctively knows that this level of engagement in own learning enables him to critique what he experiences around him and what he is told. He is able to evaluate these capabilities in terms of a newly acquired strategic awareness of their value to his lifelong journey. He has seen, for himself it seems, the limitations of the 'free child' which 'used just to go off task' and was 'never going to get anywhere' and has accepted as 'a gift' his newfound idea of himself (designated identity) as someone who is changing and learning and never giving up. He has become engaged in his learning and its story and the effect on his life is transformative.

Conclusions

The ideas discussed in this chapter are in many ways in their infancy, based on only 10 years of research and development, within a growing, but nonetheless still limited, professional community. At the heart of this work is the imperative to find and develop forms of pedagogy which apportion equal significance to the formation of identity and the development of personal learning power, as to the traditional acquisition of knowledge, skills and

understanding beloved of conventional curricula. For learners to be deeply engaged in learning over a life time, the learning needs to be personally significant and meaningful to the learner, who also needs to develop the necessary values, attitudes, and dispositions – learning power – to engage with new learning opportunities and to forge their own purpose for learning and acting in the world.

There are many limitations of this research programme – much of it is small scale and mixed methodologically which brings its own challenges. Much of it has been practitioner led, and Western contemporary structures of schooling are not hospitable to it. There is scope for large impact studies, to explore the impact of this approach to learning on both engagement over time and standard achievement outcomes; the subject matter calls for new methods of educational enquiry that can do justice to narrative, qualitative and quantitative evidence as attention moves between the personal (ipsative) and the public (standardised) assessment outcomes of education, only some of which can be measured quantitatively. When all is said and done, the light in a learner's eye that denotes engagement may be recognised in practice but is much more challenging to investigate through traditional research methods.

What also becomes clear is the importance of particular concepts of place and time, which have not been traditionally theorised in pedagogy: a learner is always embedded and embodied in a particular place at a particular time and his or her learning is a journey of which he or she must progressively become the author. The language and assessment practices of learning power provide a way of connecting the deeply personal with the public and scaffolding the journey of learning as enquiry rather than only as received transmission.

Exploring the concept of engagement from the perspective of a participatory paradigm allows us to see it as a complex system of systems which better reflects the reality of learners, classrooms, schools and communities. A complex systems lens may be particularly valuable for understanding the ways in which the development of learning identities and deep engagement is history and community dependent. By accounting for complexity, it becomes clear that there are many factors which

influence the level of a student's engagement in learning in school. These range from the deeply personal (such as identity) to the public (such as encounters with existing funds of knowledge and assessment events). In a world of almost infinite complexity, endless change and multiple possibilities, our approach to engagement in learning needs to be as complex and rich as the challenges we face. Understanding deep engagement as participatory enquiry, with a set of pedagogical design principles, which integrate the personal with the public, the process with the outcome, the local with the global, means that we can move beyond the confines of the 'classroom' and 'one size fits all' solutions towards a more flexible, imaginative and professionally rewarding way of designing and managing learning that is deep and engaging.

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