A living-theory pedagogy for postgraduate distance learning education

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Abstract

This paper explains my educational influence in the transformation of a distance learning MSc programme in Construction Management offered by the University of Bath. Between 2000 and 2011, I was involved in adapting the programme from a classical paper-based correspondence style of course to a cutting-edge blended learning programme of study. The focus moved from the *delivery* of teaching materials to students as recipients of knowledge to the *engagement* of students as active agents generating their own practice-based understanding. Key to this transformation was the establishment of the overarching unit *Consolidating Theory and Practice* that provides the vehicle for students to develop skills as reflective practitioners and to generate explanations of their educational influences in their own learning. However, the core of this paper centres on an archeology of my values, starting from their roots in the lives of my grandparents. I trace the evolution of those values through my parents and on to me. Using extracts from my MA dissertation, I describe how I carried out a significant reassessment of how I hold knowledge and the evolution of my values during that process. I show how my values were expressed in the course of recasting the Construction Management programme, culminating in a claim to have directly influenced students to research and produce their own living-theories.

Glossary

CMDL: The MSc programme *Construction Management by Distance Learning* (1990–2006) that preceded *International Construction Management* (2006–)

CTP: The ICM unit Consolidating Theory and Practice

ICM: The MSc programme *International Construction Management*

IEM (paper): The paper *The Integrated Engagement Model: critical factors in the evolution of a new pedagogy for postgraduate distance learning education* – written for publication in a refereed engineering journal

PBL Problem-based learning

Programme (of study): Course

Unit (of study): Module (100 hours of study)

Foreword

When employed at the University of Bath and for the five years since I retired from there in 2011, I have been involved with developing and tutoring a unit of study (module) entitled *Consolidating Theory and Practice* (CTP) within the distance learning MSc programme (course) *International Construction Management* (ICM). Students engage with elements of this overarching unit towards the end of each of the six compulsory (core) units of study; as the title suggests, students are required to show how they have integrated academic concepts into their professional practice in order to improve its quality. Claims for improvement must be supported by validating evidence, the final assessment being through a portfolio of learning presented within a web-based wiki.

About six months ago, the ICM Direct of Studies suggested that we had sufficient materials and experience to write a paper detailing our development of the ICM program over 15 years, as stated above, from a classical paper-based correspondence course to a cutting-edge 'blended learning' programme of study. The working title of the paper is *The Integrated Engagement Model: critical factors in the evolution of a new pedagogy for postgraduate distance learning education* (the *'IEM'* paper)*.* The intention is for the paper to be published in a refereed engineering education journal and it has been written (90% by me) in a style appropriate to meeting that intention. The development of the unit *Consolidating Theory and Practice* (CTP) forms a central part of the paper, which is currently in completed draft form awaiting responses from ex-colleagues acting as initial reviewers.

As a paper intended for the academic engineering community, the *IEM* paper is written in the standard third-person form and with an ostensibly objective voice. However, my background is in education and I have been active in the field of Action Research since completing an MA in education in 1994 and have been overtly engaged in Living Theory research *per se* (Whitehead, 1989) for about the past decade. Starting from the premise that all the educational initiatives with which I have been engaged have been influenced by my values, I am offering this living-theory paper *A living-theory pedagogy for postgraduate distance learning education* as an explanation of the processes that drove the writing of the *Integrated Engagement Model* paper but which are not apparent in its surface detail. These

processes are also the ones that drove my contribution to the development of the CTP unit itself as the outward expressions and manifestations of my own inner values.

Who is 'I'?

This paper is written in the first person. I am addressing you, the reader, through the first person singular part of speech "I". As a natural response to this form of address, you might be asking who 'I' is and so I am now hearing you ask the question "Who are you?" For me, this question is essentially ontological and so I cannot respond with labels such as 'male' or 'socialist' or descriptions about my functions such as 'educator' or 'father' or 'researcher'. I answer the question "Who are you?" by saying that I am a person who holds certain values relating to freedom, justice and democracy that are generally regarded as offering hope for the flourishing of humanity and which I try, often imperfectly, to live out in the form of my life. A thumbnail autobiography that offers some initial context to this statement is available via this link ([Autobiography](#)).

The phrase 'offering hope for the flourishing of humanity' is important, in that it emphasises values of freedom over bondage, democracy over totalitarianism and justice over tyranny. It removes the possibility of a sadistic despot asking the question 'How can I improve the quality of my practice' as the focus of an action enquiry leading to a values-based account of their research; it also removes the possibility of such an account being regarded as a valid (albeit unwelcome) contribution to Living Educational Theory. Wherever the term 'values' occurs in this paper, it is used in the sense that they offer hope for the future – not necessarily for the entire world across the entirety of future time, because I do not wish to become embroiled in a discussion about moral relativism. I am speaking about my values and how I am motivated by them to improve what I am doing and to help improve what others within my sphere of influence/care are doing.

This paper intends to offer a values-based account of my educational influence as a description and explanation of my living-theory pedagogy relating to a postgraduate distance learning programme. The Concise Oxford English Dictionary (OED, 2004) defines values as "principles or standards of behaviour". To this definition, I add Paul Feyerabend's (1975) observation that:

> "Values can only be clarified and understood in the course of their emergence in practice"

In personal terms, I understand my values to be the internal standards that guide my thinking, feeling and acting – that is, my attitudes and behaviour. When living true to values that are life affirming and offer hope for the future of humanity, I can claim that I am acting in a moral and ethical manner, where *morals* define my personal character and *ethics* are concerned with the social system in which those morals are applied. My conclusion is that values cannot be described but that their existence as guiding principles can be discerned by their expression in my practice, in terms of my attitudes and behaviour. Working from my understanding of how I live my life, I can identify just two overarching values – *freedom* and *justice* – to which I can trace back through their application (or inadvertent denial) to any

and all of my specific attitudes or behaviours. If these are my 'principles or standards of behaviour' (as defined above) then I identify two core drivers – *care* and *love* – that provide the energy or impetus for the practical expression of my values as my attitudes and behaviour.

An archeology of my values

Against this background, I shall now look backwards in time for the sources of my values, which may help to give them further expression within the context of this paper as a values-based account of my educational influence. Those sources begin, within my own memory of direct experience, with my four grandparents, who raised their children (my parents) barely 100 yards apart during the early years of the 20th century, in the tenement flats located in Shoreditch in the East End of London UK (**Figure 1**). My father's family of six lived in three rooms in Gladstone Buildings and my mother's family of four lived in two rooms in Albert Buildings. It is worth noting that my mother and her sister were born 14 months apart – thereafter, their father owned a washable condom that lived on the side of the draining board next to the sink (as my mother reported when in her 70s).

Figure 1: Gladstone Buildings where my father lived 1914–1940 (early 1970s prior to demolition)

Both of my grandfathers were stokers at the time – one shoveling coal into a retort at the gas works and the other shoveling coke into a furnace at a public baths and wash house. Both families had a history of alcohol abuse but my grandmothers fought hard to keep their husbands in check so that they could run clean and decent homes and hold their heads up amongst their neighbours and in the streets outside. What values helped to keep these four adults and six children 'decent', to use a term of those times? I knew my grandparents well as a child and adolescent. My father's parents lived – from 1946 until their deaths in the 1960s – in part of the house 20 miles south of London in which I was brought up. Visits to my mother's parents, who remained in their Shoreditch flat, were frequent and I can remember absorbing the 1930s feel of that environment into my child's uncluttered understanding of the world. As a result of this immersion, I retain a strong memory of who these four grandparents were as people and of the lives that they had led. Thinking now about what

made my grandparents ' tick' and the values that guided them, the dominant impression that comes to my mind is a sense of *justice*, which broadly manifested itself in terms of *dealing fairly with others* and *speaking truthfully*, the motive force behind their expression being one of *care*, the overall result giving an advantage to the survival of the family group within that environment.

Figure 2 shows my paternal grandmother in 1963 at the age of 84; frail and almost worn out after a lifetime of caring for her family – yet now at relative ease, knowing that others had taken over the responsibility of caring for her and her descendants. Then aged 17, I would return home from school (both my parents being out at work) and talk with her about the day. With failing eyesight but an acute brain, she spent her time listening to the radio and I remember particularly hearing her views on the tragedy of the escalating Vietnam war. She spoke from an experience of seeing three sons go to fight in World War 2 (they all returned but her daughter was killed in an air raid); she had filled shell cases in 1918 and assembled machineguns in 1944. She had lived through an era whose ethic had denied her class and sex what I now understand to be social justice. Looking back to 1963, I see her generation then as a sort of partially inert geological layer, upon which the rest of the family was set.

Figure 2: Emily Louisa Mellett (Embleton) in 1963 aged 84

Moving forward to my parents' generation, I identify a continuation of those earlier values; however, I believe that values are successively adapted to inform each generation and the spirit of the age in which they find themselves. For example, with respect to their expression of the values of *justice* and *freedom*, in 1936 my father and his two brothers joined with 2000 others to prevent Oswald Moseley and his band of fascists marching through the East End – the famous 'Battle of Cable Street' ensued (see https://www.youtube.com/watch?v=-AQDOjQGZuA). In the same year, my father travelled to France to meet with other young men from France and Germany at a First World War cemetery, where they shook hands and swore never to repeat such folly. Five years later, my father was fighting as an infantryman in North Africa and Italy. Thirty years later, he wrote (Mellett EJ, 1975) an account of that time, which began:

> " Let me say at once my war effort never did bring out the best in me and whatever killing or anguish I caused as a front-line infantryman were always acts of sheer self-preservation and never for the glory of God or country. I never did leap with joy to the task of killing and maiming Germans for others; I never found my finest hour mainly because I never went looking for it. Millions of men were brave at that time but I have too much respect for their courage to be counted as one of their number."

I thank the German infantryman at Anzio whose own values of justice caused him to take my father prisoner rather than to shoot him out of hand as he lay cowering in a ditch. Over thirty years later and with his life as a soldier and prisoner of war in the historical past, my father concluded his account:

> " What did I learn from these experiences? This is the important value of experience. What do we learn?

> "I learned to give proper value to that word security. Security is not the privilege of fitted carpet or television. It has nothing to do with materialism: real security is far more basic. I learned that to have four walls and a roof, a fire in the grate, food in your belly, someone to love you and for you to love someone was the real and true basis for security.

> "I also learned that although man has been around for thousands of years, our veneer of civilisation is only about 3,000 years old. So thin, so easy to pierce and when this happens, back we go to a millennium of primitive emotions and fears. We have a long way to go before we rid ourselves of hate, greed, jealousy, anger and fear. Our civilisation will only be rock hard when the only emotions we live by are love and compassion.

> "Here we are 30 years later and there are still wars and there are still more prisoners. Will we never learn. Men who have been near to death have an understanding of the eternal verities denied to those who have never stood on the brink of the abyss. Men who stand defenceless at the mercy of a brutal foe, know the need of an inner strength that transcends ordinary courage."

My father returned to England in 1945 determined always to be positive and to value and cherish the simple things that he believed formed the core of a good life – straightforward thoughts and actions that were the expressions of a positive set of values that were largely family-wide and which developed over time and through the generations by evolution and not through revolution. I was born in 1946 and those values, affirmed by my mother's parallel values grown from her own family background, formed the basis of my outlook on life – the basis from which I make judgements and take action. It is a long way from the

tenement flats of Shoreditch in the 1920s to my life in 2016, but there is a discernable thread that links my values to this source.

As stated above, I maintain that values flow through the generations and are successively adapted to inform each generation and the spirit of the age in which they find themselves – but the core values remain. This understanding is echoed in Kremer's (2003) ethnoautobiographical view:

> "Ethnoautobiographical inquiry emphasizes the narrative nature of human beings ... This hermeneutic understanding presupposes that we are not unfolding from some presumed true essence, but constitute somatic interactive presences as human beings in time and place – imaginative acts of survival grounded in observation. ... We are entangled in a multiplicity of stories and carry multiple voices."

In this way, I believe that my values have grown and adapted as I have travelled through life, the means of those changes being a form of incremental dialectic within me between striving to discover myself while at the same time attempting to invent myself.

Personal history

Before starting work at the University of Bath in 2000, I had completed a BSc in chemistry (Nottingham University 1968) and Diploma in Education (Bath University 1971). The approach to science teaching at that time was the 'Nuffield Scheme', based on the concept of 'guided discovery', through which children's studies were carried out through hands-on experiments as they worked as active enquirers. I understood my role to involve setting the topic for investigation – largely in the form of questions – and then introducing suitable experimental approaches. This approach closely mirrored the action-reflection cycle that I encountered later when studying Action Research at Master's level. My certification as a teacher was followed by 18 years as a secondary school chemistry teacher. **Figure 3** shows me in the company of members of my tutor group who were about to leave school or enter the sixth form.

Figure 3: Working in a state comprehensive school, 1986

I like to think this 1986 picture shows that we are all at ease in each others' company and that there were no power relationship barriers between them as pupils and me as the adult teacher; there is a sense of fun and mutual respect that I now represent as the reciprocal expression of *care*. I remember feeling that education in my classrooms always worked at its best when the members of the class and I were able to 'bring out the best in each other' through caring in our own ways for each other.

This period was followed by 11 years as a freelance science author/editor (1989–2000), mostly involved with Oxford University Press educational publications; a Bath University MA in Education was completed in 1994 during this latter period. Having started my studies by completing two modules in educational technology (the design and mediation of curricula), I chose the subject 'Action Research' for my third module.

A bucket of iced water poured over my head was as nothing compared to my experience during the first three sessions of Action Research I in October 1990. Gone were the 'academically orthodox' phrases that I had written a few months before during two modules in Educational Technology, such as "the writer would suggest that ..." and "it is understood that ..." Instead, I was empowered to take seriously my own experience, my own opinions and my own values. I learned to say "I" rather than "one" or "you" or "the writer". I saw that I had been a sort of intellectually challenged camp-follower of logical positivism; I saw that my rationality was not absolute but arbitrary, being founded on *a* logic that I had mistaken to be *the* logic.

I came to the first AR module as a thoroughgoing positivist with, as stated above, a background of eighteen year's chemistry and science teaching. A white English male born 44 years earlier, I had spent my formative years doing as I was bidden by others. Determinism

pervaded the world in which I had my being. Indeed, while I did not acknowledge it by name, the positivist perspective had underpinned my approach to life for almost the whole of my existence.

As I engaged with the reading, discussion and reflection that constituted Action Research I, this underpinning was called into question as I attempted to deal with the usual forms of personally-based question which ground action enquiries of the kind: *How do I improve my practice?* In my own case, I no longer had a practice as a teacher and so my opening question took the form: *How do I improve the quality of my own thinking?* In assessing my initial position, I questioned (Mellett PE, 1994):

> "... having been brought up and educated in post-Baconian scientific Western Europe, what can knowledge be if not empirical and ordered through the agency of an analytic logic? ..."

I then went on to elaborate:

> "... brought up in a culture with this perspective, I find myself an empiricist with my knowledge based on sensory observations of individual instances. My logic is propositional and analytic and I subscribe to the mechanism of inductive inference on which our (scientific) beliefs about the natural world are founded. ..."

and concluded:

> "... I am a rational being and will reject that which cannot be tested by reason. Rationality is reflection in accordance with an analytical logic ..."

These statements represented the starting point from which the subsequent weeks saw me identifying an underlying dissatisfaction with the means that I had traditionally used to generate and hold knowledge. I was forced to confront subsidiary questions of the form: "What is knowledge? ... How can I make a claim to possess knowledge?" I inspected the foundations of my claim to having knowledge and found them far less substantial than I had previously imagined. Identifying the rules that governed my thinking (and existence) as being essentially positivistic in nature, I found that many commentators spoke out against my assumed position. Carr and Kemmis (1983) drawing on Kuhn (1970) are fairly typical of those who provided a commentary on my naivety:

> "... A close examination of how science has developed reveals that personal, subjective and social factors play a crucial role in the production of knowledge. Indeed, the significance of these factors is such that "knowledge" can be more accurately understood in psychological and sociological terms than in purely logical or epistemological terms. When understood in this way, it becomes apparent that the positivist conception of objective knowledge is nothing more than a myth."

Looking back to that time, I can see myself accumulating sufficient significant anomalies against my existing 'mental paradigm' to bring about a state of crisis that would cause a new one to emerge (Kuhn, *passim*). Trying to understand how the roots of my thinking could be possibly be based in myth in its pejorative sense (i.e. as a widely held but false notion), I traced the history of modern positivism back through Hume to Descartes and Bacon and finally to Aristotle. The outline features of the argument seemed to have been:

Aristotle (grounding his conceptual scheme in mathematics and geometry) saw causes as the essence of things to be discovered by descriptive analysis; **Descartes** (referred to as a

'continental rationalist') asserted that the exercise of the natural sciences leads to certainty; **Bacon** (referred to as a British empiricist) developed the inductive principles for amassing and interpreting data. **Mach**, the Vienna Circle and logical positivism developed the verification principle which states that something is meaningful if and only if it is either verifiable empirically or is a tautology of (propositional) logic or mathematics. (But is the verification principle itself empirical, a tautology, or meaningless?)

I then engaged with the famous assertion of Hume (1740) that the principle of induction on which rests the acquisition of knowledge (based on sense data) leads to the conclusion that one assertion is as valid as any other. Was Hume steadily pressing me towards an acceptance of relativism? Wherever I turned, there were 'authorities' offering their systems approach to understanding life and reality – but their main efforts seemed to involve attempting to coax reason into giving an account of its own experience of itself.

Pressing onwards and continuing to use a propositional logic to inform my ongoing comparative analysis of texts, I constructed an argument that helped me both to circumvent Hume and to undergo a distinct shift of perspective. It was Popper (1953, 1974) who enabled this transformation by considering the process of induction to be unnecessary for the realisation of human knowledge. Like him, I am now quite happy to admit to the general fallibility of human knowledge and to simply regard its essential character as conjectural. Citing classical Newtonian mechanics as an example, Popper looks on it as no more than a marvelous conjecture, a strangely successful hypothesis and, in the light of the Theory of Relativity and quantum mechanics, a staggeringly good approximation to the truth. He goes on to assert that:

> "Once we fully realise the implication of the conjectural nature of human knowledge, then the problem of induction changes its character completely: there is no longer any need to be disturbed by Hume's negative results, since there is no need any longer to ascribe to human knowledge a *validity* derived from repeated observations. Human knowledge possesses no such validity.'"

The key word to me in Popper's observations above seems to be *conjecture*. This word has a corporate and cooperative ring to it which stands opposite to the idea of an isolated observer constructing theories. Once I accept the notion of human knowledge as being conjectural, I no longer have to consider different areas, each making its own claim to legitimacy. But the most important implication of my Popper-aided shift in perspective was to realise that *it can in fact be done*. Therefore, no one claim to knowledge can demand an innately superior position to any other. The positivist outlook may well 'deliver the goods' in the sphere of the sciences, but it cannot lay claim to all areas of human endeavour and understanding. It must wait in line and make out its case.

I dropped the notion of a universal validity for knowledge and substituted for it the notion of conjecture shared by a critically-thinking but pragmatic community. By these means I was finally able to comprehend the meaning of the assertion by Spengler (in Bloor 1983) that:

> "... if we appreciate each culture in its individuality we will realise that the unshakable truths and convictions of its members are but expressions of one specific existence and one only ... Mathematics is not a universal thing; there is not, and cannot be, number as such. There are different number worlds and the character of a piece of mathematics depends wholly on the culture in which it is rooted, the sort of mankind it is that ponders it ..."

I had earlier seen Aristotle laying the foundations for the positivist paradigm as he grounded his conceptual scheme in the *episteme* of mathematics and geometry. Carr and Kemmis told me that: "the positivist conception of objective knowledge is nothing more than a myth." I had now come to read that word *myth* in my own non-positivist context as a token of cultural consensus. The character of human reflection on any phenomenon "depends wholly on the culture in which it is rooted, *the sort of mankind it is that ponders it*..." (Bloor, *passim*, my italics).

The taught Action Research modules led to a dissertation entitled *Making the Break* (Mellett, 1994) based on an action enquiry into the evolution of my educational development. The full title was *Making the Break: how can I undertake and understand my search for an enhanced comprehension of my life through moving beyond forms of existence that are grounded in 'mere formal rationality and instrumental reason'?* – which stands almost diametrically opposed to my initial question *How can I improve the quality of my thinking?*

The focus of this enquiry derived closely from the following quotation (Roderick, 1986) that summarised for me the mounting disquiet I felt about positivism and its claim to be the sole arbiter of reason and its concomitant effect on the way we treat each other in all our dealings in almost all fields of discourse and action.

> ".... the Enlightenment project of liberating humanity from myth and the unknown has, by becoming an end in itself, turned into its opposite – a new and more powerful force of domination. The old terror before the unknown becomes a new terror: the fear of anything that cannot be calculated, standardised, manipulated or instrumentalised. Enlightenment progress in scientific- technological knowledge (= power), while creating the objective possibility for a truly free society, leads to the domination of external nature, society and inner nature.

> "What Lukacs analysed as the reification of consciousness was the price the potential subjects of liberation paid for the progressive overcoming of material necessity. Throughout the course of Western civilisation, the rationality of myth, as well as the Enlightenment which replaced it as reason only to become a myth itself, exposes Western reason as a destructive force.

> "Reason abstracts, conceptualises, and seeks to reduce the concrete and the non-identical to identity, to destroy the otherness of the other. Horkheimer and Adorno locate the irrationality of what Weber analysed as rationalisation at its deepest source – the identity logic which is the fundamental structure of Western reason. Human liberation could be conceived, if at all, only as a complete break with mere formal rationality and instrumental reason ...."

Thus, my values relating to freedom, justice and democracy now lead me to dislike power relations, hierarchies and adversarial/propositional argument and to favour consensus, collegiacy and inquisitorial/dialectical enquiry. These values are tattooed on the inside of my skin and the manner in which I express them in practice is now consolidated into the impetus that guided the choice and action constituting my educational influence as I contributed to the development of the distance learning master's programme between 2003 and 2013. These values are the current expression of those at the core of my grandparents' and parents' lives.

Working within the context of postgraduate distance learning

I started work at Bath University in 2000, with responsibility for the provision of teaching and learning materials in three distance learning MSc programmes (Construction Management CMDL; Electrical Power Systems EPS; and Integrated Environmental Management IEM). At the same time, a new Director of Studies (Alex Copping) was appointed for the CMDL Construction Management programme. An outline of the programme is available via this link (CMDL outline). My initial work included updating the workbook text and revising the supporting resources. However, the MA in education that I had studied ten years earlier had brought about a transformation in my understanding of educational learning. That transformation, as described above, moved me from a technical and positivist approach focused on the transmission of knowledge to a reflexive view focused on the creative capacities of the individual learner to make sense of their 'living curriculum' in the face of the transmission of a 'given curriculum'.

In 2006, a major pedagogical review was undertaken of the MSc *Construction Management by Distance Learning* (CMDL) programme as part of the University's quinquennial review process. As a consequence the Director of Studies implemented a major programme update (2007–2009) which included a change of name to *International Construction Management* (ICM), reflecting the international range of students' working environments, cultures and jurisdictions. Programme materials in the six core units were amended to incorporate more of an international flavour. However, the greatest change was the introduction of a blended learning study process incorporating paper-based 'workfile' study materials, web-based support materials and activities within the *Moodle* Virtual Learning Environment, ICT-mediated discussion forums and residential summer schools.

Drivers for change

Embarking on this transformation in 2007, I started from the fact that the majority of the target audience would be students who had been out of education for a number of years and that the job of the ICM team was to induct them back into education *as it is now* (as in 2007). Students had often come from a first degree teaching experience – usually 15 or 20 years previously – that had been rule-bound and didactic, which was the approach of the original CMDL programme that it was my task to amend and augment.

While it was a straightforward task to update the *content* of the programme, that activity revealed to me that the *process* of the programme was simply out-of-date for modern purposes, both in terms of students' professional needs and of contemporary distance learning educational practice. Simply stated, the programme was 'getting by' using educational stratagems that had, in my experience, been superseded by secondary schools many years before. For example, tutors (and faculty academics) were unaware (and unconcerned) that it is not valid to set an examination paper that offers a choice of three out of five questions where the questions are not similarly structured – and to then add the marks of each student's three choices and then compare the students within the examination cohort. I had 15 years earlier been writing mode 3 CSE examination questions (for candidates below the 50th percentile in ability) that had to be structured across all levels of Bloom's (1957) Cognitive Taxonomy, with the same weighted profile for each

question and subject area. (An outline of Bloom's 1957 taxonomy and its 2001 updated form is at http://www.nwlink.com/~donclark/hrd/bloom.html)

Returning now to my 18 years as a schoolteacher (1971–1989), I had never risen in rank above that of a classroom teacher. I did not aspire to the rank of head of department or beyond. I had found that I naturally adopted the role of trusted advisor and, in terms of influence, could often work as 'the power behind the throne' – in a collegiate and not in a subversive sense. I was generally regarded by my colleagues as clear-sighted and able to identify the significant aspects of complex situations; to 'go to the heart of the matter' and suggest options for action. This position was the one with which I felt most comfortable and which is reflected in a stanza from The Love Song of J Alfred Prufrock (T S Eliot, 1917, 1969) – a poem that has accompanied me through life:

> No! I am not Prince Hamlet, nor was meant to be;
> Am an attendant lord, one that will do
> To swell a progress, start a scene or two,
> Advise the prince; no doubt, an easy tool,
> Deferential, glad to be of use,
> Politic, cautious, and meticulous ...

This position also chimed with the values I identified earlier: values which lead me to dislike power relations, hierarchies and adversarial/propositional argument and to favour consensus, collegiacy and inquisitorial/dialectical enquiry. I also gave expression to these values within my duties as a lay magistrate between 1992 and 2006 (see https://www.judiciary.gov.uk/you-and-the-judiciary/going-to-court/magistrates-court/). When chairing a bench of three magistrates (as *primus inter pares* – 'first amongst equals') and with responsibility for the running of a court hearing criminal cases, I would always seek consensus, even though judicial decisions in the UK are based on an adversarial application of the law. When working as the court chairman, I regarded my position as one of authority derived from experience rather than one of assumed power granted by the role.

It was against this historical background and with the skills and attitudes it had engendered that I tackled the revision of the construction management programme's teaching and learning materials. Looking in the academic literature for a formal expression of the approach that had guided my practice in the past, I was grateful to read Donald Schön's (1991) assertion that the capacity to reflect on action so as to engage in a process of continuous learning was one of the defining characteristics of professional practice. This approach was (and remains) a defining characteristic of my 'being alive in the world' and was the approach that I took to the exploration of chemistry and science with my secondary school students. Insights from Donald Schön's seminal work supplied a formal footing for the need for change in the ICM programme that the changing times demanded. Schön argued that the model of professional training which he termed 'technical rationality' of charging students up with knowledge in training schools so that they could discharge when they entered the world of practice – perhaps more aptly termed a 'battery' model – has never been a particularly good description of how professionals 'think in action', and is quite inappropriate to practice in a fast-changing world.

Schön (1987) concluded:

> "I have come to feel that [the] only learning which significantly influences behavior is self-discovered, self-appropriated learning."

In other words, an academic programme of study can provide the opportunity, the environment, the encouragement but the learning belongs ultimately to the learner, who will contextualise that learning within their professional practice – as in Step 4. of the Kolb (1984) learning cycle.

1. Concrete experience →

2. Observations and reflections →

3. Formation of abstract concepts and generalisations →

4. Testing implications of concepts in new situations →

   and back to 1. again . . .

Thus, I reasoned that self-actualised learners (Maslow, 1943) such as construction managers should integrate insights from their programme of study into their own professional practice and thus improve its quality *as they study*.

Schön (1987) then pointed me to a necessary change in my perspective and function as an educator:

> "In a reflective practicum, the role and status of a coach take precedence over those of a teacher as teaching is usually understood. The coach's legitimacy does not depend on his scholarly attainments or proficiency as a lecturer but on the artistry of his coaching practice."

I understood this statement to oblige the programme to move from a 'delivery' mode to an 'engagement' mode: declamation should give way to conversation i.e.

> "In this reflective conversation, the practitioner's effort to solve the reframed problem yields new discoveries which call for new reflection-in-action. The process spirals through stages of appreciation, action, and re-appreciation. The unique and uncertain situation comes to be understood through the attempt to change it..."

Faced with the clear need for a change in the paedagogical approach of the programme, the Director of Studies and I recognised the need to aim at producing what he called *professional articulacy* within each student through their engagement with the programme. At the outset, the impetus was to seek a learning approach that encouraged students to actively engage in the process of study rather than simply being passive recipients. Distance Learning students to date (i.e. up to 2006) were generally passive learners responding to content-driven learning experiences. I felt that these students were in fact in a unique position (engaged full-time in their professional work) to be able to benefit from a reflective learning approach.

In formulating a new and more appropriate pedagogy , I reasoned that the majority of students have a professional background in management and that their jobs routinely involve them in the processes of problem-solving and decision-making. Against this background, all of these self-selecting, professional, often self-financing, mature students are essentially asking (action research) questions of the sort "How can I improve the quality

of my practice?" (Whitehead, 1989). Thus, the professional requirements and particular demands of the modern student imply an increasing need for improved process skills that comprise a mix of the higher-order cognitive skills as described by Bloom's (1957) taxonomy of the cognitive domain: knowledge < comprehension < application < analysis < synthesis < evaluation. It was not sufficient to respond to these needs and demands by simply offering an updated range of knowledge and comprehension. (An outline of Bloom's taxonomy is at http://www.nwlink.com/~donclark/hrd/bloom.html)

However, the Director of Studies and I recognised that much of the existing pedagogy worked very effectively at the lower levels of cognitive skill and so it was decided that it would not be necessary to start from scratch; it should be possible to meet the modified aims by developing the programme from the elements of good practice and content that had already been achieved. This good practice had been overtaken by events in curriculum design and methods of mediation and by the requirements of the students themselves as professional construction managers. Thus, the decision was to adopt a future strategy that aimed to blend two extra strands into the latter parts of the existing framework i.e. (i) the use of new technologies and (ii) a process-driven methodology.

I reasoned that managers in the Construction Industry have to understand situations portrayed to them and to make judgements. Such process skills cannot be developed by simply taking in a body of new knowledge. With the integration of decision-making as a driver for change within the programme, a model of professional expertise derived by Cheetham and Chivers (2005) from Dreyfus and Dreyfus (1980) provided the conceptual underpinning for moving managerial performance from an analytical and rational basis (competence) to a holistic and intuitive one (expertness); advancement of ability in this area (situational understanding and judgement) follows the hierarchy: *Novice–Advanced beginner–Competent–Proficient–Expert*.

This deepening approach is what I sought to be applied to changes in the programme – to engage students in a 'culture of enquiry' approach to learning to enable students to:

- critically to review their engagement with the programme, to set targets and seek to realise them
- understand the quality and value of their professional practice through their studies
- make a valid claim that they understand their own educational development and, as a member of a collaborative community, establish an autobiography of their own learning.

I looked on these changes as a means of empowering students to take some control over their education by becoming active agents within the educational process. I regard this approach as being the latest manifestation of the skills and attitudes that I began to develop as a classroom science teacher 25 years earlier. With these drivers for change identified, the requirement was then to develop an appropriate curriculum.

Consolidating Theory and Practice

In its current form, each of the six ICM Core Units is now supported by printed content that is supplied in a ring-binder designated the *Workfile.* This content is also available online. Each of the constituent workfile sections (typically 6–12 per unit) is prefaced by a *Focus Question* that stimulates a discussion between students around the world moderated by the unit tutor. Students are encouraged to keep a record in a reflective journal of contributions to the forum discussions that they find significant. The accumulated responses help to broaden students' understanding of the international context of their profession while encouraging them to reflect on the significance of the content of the current section to their own professional circumstances.

To facilitate the reflective learning approach, the old 'Case Study' unit was replaced by a completely new integrated unit *Consolidating Theory and Practice* (CTP). This unit runs vertically through the first six core units of the ICM programme, with each core unit containing an element of CTP study based around the subject-matter of that unit. Each element of CTP study takes the form of a one-week web-based activity that takes place towards the end of the unit study. **The intention of the CTP unit is for students to show how they are working as reflective practitioners, integrating insights from their academic studies into their professional practice in order to improve its quality.** CTP assessment is based on portfolio work in a web-based wiki template rather than a formal academic essay.

The processes by which students study the Core unit materials address the stated requirement for them to work as *reflective practitioners* and to move their understanding from the *parochial to the global*. Both of these requirements stand at the centre of the new unit *Consolidating Theory and Practice* (CTP). The new CTP unit was developed completely from scratch, rather than adapting and augmenting existing teaching and learning materials, which gave the opportunity to build the unit by means of assessment-led curriculum design rather than content-led design which had directed previous revisions of existing units of study. Assessment-led design builds on the sequential responses to the following questions:

1.   What new knowledge and skills do we want the students to have at the end of their study that they did not have at the start?
2.   How can we judge the extent to which they have made these improvements?
3.   What resources do the students need in order to make these improvements?

The knowledge and skills listed in 1. can be derived from 'current good/accepted practice' circulating within professional and academic circles; it can also be negotiated with students, either directly or through an interrogation of past practice and principles and students' evaluation. The judgements to be made in 2. rely on a set of graded assessment criteria designed to discriminate between the quality of work submitted for summative assessment. Students are provided with a copy of these assessment criteria at the start of their studies. A copy of these criteria is available via this link (CTP Assessment Criteria). Students engage with the resources in 3. via the printed materials and online forums; they also actively seek information and develop process skills through interaction with each other, the CTP activities and their Core unit tutors and CTP tutor. The CTP unit introduction to students is available via this link (CTP intro (text).pdf)

My living-theory pedagogy – evidence from portfolio assessment

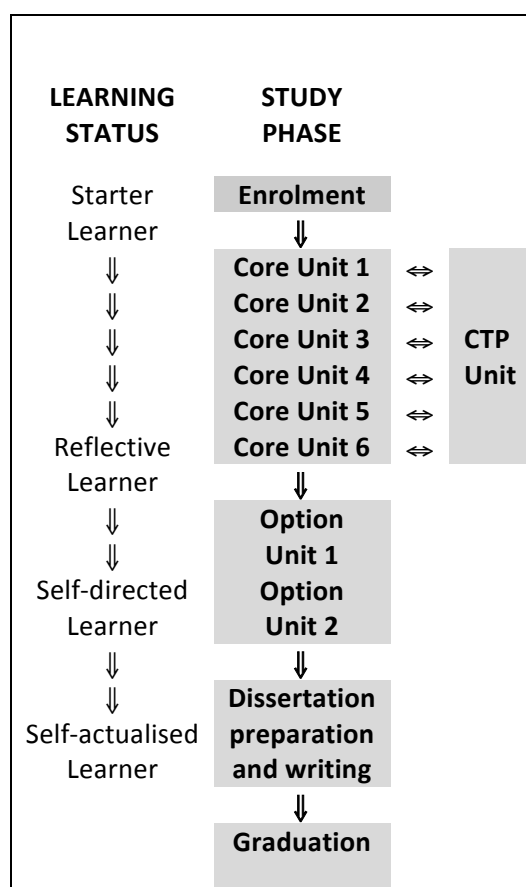| LEARNING STATUS	STUDY PHASE		
Starter Learner	Enrolment ⇓		
⇓	Core Unit 1	⇔	
⇓	Core Unit 2	⇔	
⇓	Core Unit 3	⇔	CTP
⇓	Core Unit 4	⇔	Unit
⇓	Core Unit 5	⇔	
Reflective Learner	Core Unit 6 ⇓	⇔	
⇓	Option Unit 1		
⇓			
Self-directed Learner	Option Unit 2		
⇓	⇓		
⇓	Dissertation preparation and writing		
Self-actualised Learner			
	⇓		
	Graduation		

Figure 4. Student's learning during their ICM programme studies

The diagram given in **Figure 4** summarises the ICM programme as a whole and the overarching CTP unit within it. Students enter the programme as 'starter learners' whose educational experiences to this point have largely been based on content-driven and didactic forms of study. The educational processes of the six core units, especially the 'Focus Discussion Questions' and associated forums, encourage students to consciously become reflective practitioners and require them to overtly make a claim that they understand their own educational development.

As they incorporate insights from their academic studies into their practice in order to improve its quality, they are encouraged to identify the processes by which their choices are made and by which their actions are informed. To meet these requirements, students must implicitly recognize their personal motivations – based on their values – for choosing specific areas for their self-motivated educational efforts. In this manner, I would assert that students are researching their own practices, within their enterprises as reflective practitioners, offering values-based explanations for their educational influences in their own learning i.e. their own living-theories. This claim can be illustrated by the following example from a student's work that I recently assessed (2016).

Pearce Sanders' portfolio

I have assessed the portfolios of three cohorts of students who have used the latest format of the wiki template finalised in 2014. The individual scores show a spread of marks from a minimum of around 35% to a maximum of 95% – all approximately within a normal distribution with a mean at around 65% (see Mark Distribution). Thus, I would claim that (a) the assessment criteria adequately discriminate across the full range of quality and that (b) the majority of students have attained a pass mark (45%) that indicates a general understanding of the requirements of the unit and the forms of response required.

The student Pearce Sanders (see Title Page for his professional context) was the member of this group who most fully grasped the requirements of CTP and the opportunities it offers. His work achieved a final mark of 95% against the assessment criteria and includes clear evidence for his implicit claims that he understands his own educational development through having carried out a form of living-theory research that has directly influenced his own learning and the learning of others. For example, in the Unit 1 section Reflective Practitioner, the skill he chose for improvement was the concept of psychological contracts and how they motivate people. Following a Skills Assessment that scores highly against the assessment criteria relating to working as a reflective practitioner, I can see (p. 9) Pearce's underlying values relating to social and economic justice at work where he says:

> "... I was leading a small group of paid hourly workers that were employed by Flatiron, but in their eyes under a calculative contract. I wanted to understand their needs and motivate them the best way possible to build the foundations in the area in a timely manner, but retain a high quality of work. The key to bridge the gap of calculative to co-operative contracts I felt was to make the group of employees seem like a crucial working group to Flatiron as a whole, which undoubtedly they were. I took to practice an idea that has been constantly put forth by our head office; Flatiron ONE policy (figure 1, attached in this document), where I re-iterated to them that what they perform today, matters to everybody on this project and everybody working for Flatiron across North America. They were all part of the same team working towards the same goals. They were not just a number and a lost employee to Flatiron; the corporate message from the very top does not believe in that. I shared on a weekly basis cost reports, schedule reports, and other detailed information about our high productivity with the field crew and not just my management team. On top of this I requested from my firm social outings (nice local dinners) that were paid for by Flatiron because of the great level of work done by the field crew. They really did feel appreciated by Flatiron throughout the working term. Numerous times extra hours of work were put in planning, scheduling, and end of day finishing that the crews were not paid for. They knew the rewards were coming back to them in other ways. After the field work I also recommended a few of them for certain promotions that have helped their careers. As Drucker (1966) discusses aligning Flatiron's objectives with the employees objectives, by constantly evolving the field crews and making them seem part of the team - being 'ONE' Flatiron, bridged that 'gap' of the wants between the individual and the company."

Looking at this extract, I see Pearce wanting to understand the needs of his team so that he can bridge the gap between the wants of the individual and those of the company. He achieved this objective by helping this group of employees to appreciate the crucial role they are playing in the project. He emphasised that they were not just anonymous functionaries to the company but that they were all part of a company-wide team working towards common goals. This inclusional approach was reinforced by sharing with the crew cost reports, schedule reports and other detailed information about their high productivity; the sense of being appreciated and affirmed was further strengthened by social outings to

restaurants paid for by the firm. As a result, the crew automatically 'went the extra mile' when circumstances required, while some of them were ultimately recommended by Pearce for promotion on the basis of their contributions.

Within these descriptions and explanations, I see Pearce's actions being motivated and informed by values relating to social and economic justice. I suspect that these values have always been an innate part of his being in the world but that the CTP unit has enabled him to specifically identify their influence, albeit implicitly rather than explicitly within his account. While the CTP unit as envisaged and designed by me requires students to consciously work as reflective practitioners, the brief does not require them to *explicitly* express their living-theories as such – the term is not used in any of the unit materials or briefs. However, the best students' work (as Pearce Sanders' above) does express their living-theories, but *implicitly* within their accounts and in accordance with the explanation of living-theory given on the EJOLTs home page i.e.

> "Researchers generate their living-theories as their values-based explanations for their educational influences in their own learning, the learning of others and the learning of social formations" http://ejolts.net/

Thus, I am claiming that the process of designing the CTP unit illustrates my values-based educational influence on my own learning, while the work of Pierce Sanders illustrates those influences on the learning of others.

There is a further influence that extends to the learning of social formations, via an external examiner from the University of Reading who attends ICM Examination Board meetings. This examiner showed an interest in CTP from its first emergence into the ICM programme and went out of his way to engage me in conversation at each of the six-monthly meetings. He also took away links to the unit content and informed me about the progress of his 'home grown' version of CTP and its incorporation into a Reading University master's programme. In this case, I see 'The University' (both Bath and Reading) constituting social formations that have been influenced by my living-theory pedagogy for postgraduate distance learning education.

Conclusion

This account started with an exploration of the values that I understand to have informed the manner in which my grandparents lived within the time and place that they found themselves. I then traced the development of those values through the lives of my parents and their influences on my own early life. Autobiographical details have been included in an attempt to help you, my readers, form an impression of who I am at an ontological level, as a person who holds certain values relating to freedom, justice and democracy that are generally regarded as offering hope for the flourishing of humanity and which I try, often imperfectly, to live out in the form of my life. In terms of their expression as an educator, those values then developed through my work as a secondary school teacher and through the influence of a subsequent MA in education specialising in Action Research.

These values drive my educational endeavours. My dislike of power relations, hierarchies and adversarial/propositional argument leads me to integrate elements of consensus, collegiacy and inquisitorial/dialectical enquiry into my educational initiatives and actions. This ontological stance provided the pedagogical focus for my work in recasting the teaching and learning materials for the revised *International Construction Management* programme and the design of the unit of study *Consolidating Theory and Practice*. My educational values and influence encourages the engagement of students with their study rather than the delivery of packaged knowledge to them. Under this influence, students learn to act as reflective practitioners, to share their professional knowledge as educational contributions to the programme, and to improve the quality of their own professional practices while undertaking academic study. Without explicitly using the term *living educational theory*, the assessment process requires students to offer a valid claim that they understand their own educational development, by showing how they have incorporated academic concepts into their professional practice in order to improve its quality.

Finally, the educational principles inherent in the Consolidating Theory and Practice unit have now spread beyond their origins in my values and the development of that unit for the University of Bath MSc ICM distance learning programme. Members of the University of Reading are now incorporating these principles into their own Construction Management MSc programmes in order to improve their quality, as illustrated by the statement at
https://www.reading.ac.uk/CME/pg-taught/cme-pgt-courses.aspx

> "... each programme has a core module in which the material from the taught modules is integrated and applied through case studies or other applied work."

The term 'applied work' refers to students' own professional practices.

My aim in writing this paper has been to give you a sense of who I am in terms of the values that I live by and the way in which those values have informed my educational endeavours. Those endeavours range from family interactions and experiences to formal educational settings, the subject of this paper being an MSc distance learning programme. The details about my family history may seem extraneous to some, but my intention is to be as explicit as possible about a human attribute that is implicit by its very nature. We can see the footprints left by values in action; but values are *noumenons*, as contrasted with *phenomena*, which can be apprehended by the senses. In this way, I hope that the details of my life will speak for my values and that the nature of my educational endeavours may be seen as expressions of those values – as I have attempted to make a claim to have developed a living-theory pedagogy for distance learning education.

Acknowledgement

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[1] This paper has included material that was written up to 25 years ago, when the author had access to copies of the works referenced here but was lax in noting page numbers or has mislaid them. That access is no longer available and so there are several instances where it has not been possible to include the specific page reference to the passage quoted.

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