

CHAPTER A1

Learning to be Professional Reflective thoughts on a lifetime of trying *John Cowan*



Professor John Cowan entered academia after a successful career as a structural engineering designer. His research at Heriot-Watt University, Edinburgh, where he was the first Professor of Engineering Education in the UK, latterly concentrated on student-centred learning and the learning experience. On moving to the Open University in Scotland, he encouraged innovative curriculum development and campaigned nationally for rigorous formative evaluation in higher education. His passion for and professional interest in student-centred learning now spans over 40 years. During that time he has placed an ever increasing emphasis on preparing students to exercise stewardship over their life-wide development while at University, and in lifelong learning thereafter. In retirement he remains an active teacher in undergraduate and postgraduate studies at Edinburgh Napier University. This seminar provides a unique opportunity to enjoy the wisdom of a leading thinker and practitioner in the field of education, who can draw on an experience-rich lifetime of sustained commitment to the personal growth and professional learning of himself and others.

Summary

My proposition: our own life experiences, from which we will have learnt what becoming professional means, can provide us with a fantastic resource from which to create good educational designs. This Chapter is based on my own reflections on how I learnt (and still learn) to become professional, in four different professional fields. Out of these reflections I have gradually extracted some general propositions and principles for educational designs, which I believe are more likely to be encouraging and effective in assisting learners to begin the process of becoming professional while they are studying in higher education.

The Chapter was produced to support a seminar, in which participants had the opportunity to explore this summary statement, and its implications. Video clips of this seminar can be found at <http://learningtobeprofessional.pbworks.com/John-Cowan> Prior to reading this article I encourage you to spend 10mins reflecting on the influences which have shaped your own development as a professional. The Chapter is provided in both pdf and word format. If you chose the word format you can annotate it and add your own experiences and sense making as you read it.

Overview

The views I express in the paper for discussion which follows are strongly influenced by personal experience, extending over a long lifetime. So I begin here by explaining at some length, I'm afraid, where and how my views originated. In so doing, I add some side comments, akin to footnotes – in the right hand margin, like this. There follows a summary of the beliefs and values which I have come to hold about students' stewardship of their continuing personal and professional development, and about how it can be educationally nurtured. Finally I offer thoughts on how education could progress in the next decade or so, if we put "learning to be a professional" in a prominent place on our agenda.

Comment [J1]: Why not add your own comments, in the left hand margin, or between mine?

How did my views originate?

I was taught, during the Second World War, in six different Scottish schools. In all of them, the learning was teacher-directed. I was taught by a few splendid teachers. One, especially, revealed to me the joys of the integral calculus, which I'm sure I would never have discovered if left to my own devices. Another introduced me to a range of wonderful English literature to which I often return. Generally, however, I soon learnt to just work out what was being asked of me in the examination system, and to do it well. I did not know then that I was sussing out, and following, the hidden curriculum, but that was indeed what I was doing.

Comment [J2]: Which is not necessarily bad, pedagogically. I found it effective to be instructed how to use a pipette, or how to integrate by parts.

I wore specs before I went to school. My eyesight was deteriorating rapidly, and at that time, the professional wisdom was that the less I read, the less deterioration would ensue. So my reading outwith school was restricted to 30 minutes per day. I relied upon my mother to read to me, to enable me to do my homework. She also read for my diversion, at a time when we had radio but no television. With, rather than from, my mother I met many wonderful characters in literature whom I have ever since regarded fondly as personal acquaintances of mine, rather than as characters in books. Not unreasonably, my mother did all she could to manage me, in more than my use of my eyes. And not unnaturally, I yearned to be my own person. I suspect my commitment in due course to encouraging my own children (and, later, my students) to make their own decisions from an early age was to some extent a reaction to my own childhood experiences.

Comment [J3]: Unlike most of the "exam passing machines" of my teaching experience, I was, however, keen to follow my own direction.

Comment [J4]: Now known to be totally wrong! But too late for me!

My mother pushed me (mothers have a habit of doing this!), intellectually as well as scholastically. My father, who was a lecturer in a then technical college, encouraged and supported me in all sorts of ways. He was a gentle gentleman, who was ever on the lookout for people in need of assistance. He gave this help willingly and with pleasure. He shared with me his concept of a "pool of goodwill" from which we can all draw at some time or another, and to which we should all contribute as best we can and when we can, not necessarily looking for a return from the person whom we have been able to assist. I suppose my commitment, many years later, to staff development work in Third World countries was prompted by values and practices I had acquired from my father.

When I was seventeen, I went to university, where again the teaching was authoritarian, and the lecturers far from approachable. I had wanted to become a lawyer, or rather an advocate. But that called for 4 years of study, and they advised that my eyes would not last for more than 3 years. So I opted instead to study civil engineering, motivated by the prospect of designing and building useful things. Ironically, after six months, as I became physically mature, my eyes began to stabilise!

In the first three month summer vacation, I entered indentured employment with a firm of consultants, having sought and found (with my father's assistance) an apprenticeship which offered me training in the two years after graduation. The firm with whom I was to work in

various capacities for 14 years, employed many apprentices and few engineers or journeymen. Consequently the apprentices were often expected to undertake tasks well beyond their professional status. I had only been there a few weeks when I was asked if I could design reinforced concrete beams. I saw an opportunity to do something more interesting than simply colouring in prints of drawings, and dishonestly said “Yes”. Quickly I found a couple of readable books in the office library, and went home to teach myself how to design reinforced concrete beams. I soon found it exciting and motivating to go on site, to see my calculations and drawings becoming reinforced concrete foundations for an electricity sub-station, and even to solve the practical problems which my naive detailing had sometimes created.

Everything I did that summer was either self-taught, or taught to me by other apprentices – like how to set up and use surveying instruments. Senior apprentices taught me effectively, and supportively. The few engineers in the design office modelled for me the practices I wished to follow and abilities I set out to acquire. That same pattern was to apply in my second summer. Little of what I studied at university was of any direct use to me. Even the university course in surveying techniques, when at last that subject featured in our timetables, was primitive in coverage compared to what was expected of us in practice, and in which I had already acquired considerable expertise.

In due course I graduated, having again found out what the examiners expected of me, and having supplied it in good quality. In my heart of hearts, I was far from convinced of the professional or other value of my education. Admittedly I had relished the wonderful abstractions of the various courses in mathematics. And an imaginative lecturer in geology had inspired me to see and read the countryside as if for the first time I had shed dark sunglasses. But I felt dissatisfied.

And so it was that I began a habit which was to persist for the rest of my life. In the August of that summer, I undertook something akin to self-appraisal. On that first scrutiny, I came to the conclusion that my first class honours degree said little about me, except that I was an intellectual savage with a sound background in engineering theory which I wasn’t putting to much use in practice, though I now had some relevant technological knowledge and understanding, and a beginner’s practical competences. But, as I was beginning to discover, mostly from the young women of my acquaintance, but also from a close male friend who was studying to be an architect and guided me around some galleries, I knew little or nothing of art, literature, music, ballet or drama. I decided that I wanted to make good that deficiency and become a rounded person.

I consulted friends and acquaintances who seemed better equipped in these areas than me. I asked them to give me lists of what I should do, read, study, experience, to open up my education as a whole person. Some of them helped me in this way. Some of the suggestions did little for me – or maybe I mean that I did little with them. However I never grudged unproductive experiences; I was still learning negatives from them. Other suggestions led me into richnesses which have occupied me for all of my life, and have in turn opened door after door into other wonderful areas and experiences.

In my appraisal, I also reviewed my professional competences. Visits to construction sites had shown me that my knowledge of the trades in the construction industry was slight, superficial, and (in my judgement at that time), inadequate. I decided to sign up for evening classes leading me to a Higher National Certificate in Building. I didn’t want to be able to construct timber roofs, install central heating or lay bricks. But I wanted to know enough to tell if I was working with a competent joiner, plumber or bricklayer; and also to know the questions I should be asking, in order to tap into their advice and experience.

Comment [J5]: Interestingly, when I graduated, one piece of advice offered (facetiously?) by our professor at the graduation dinner was to do just this!

Comment [J6]: Peers are often the most effective teachers. Watch children teaching children to play Monopoly, and see how much more effective they are than adults.

Comment [J7]: It was taught by men few of whom had practiced as engineers; and then, later, I realised that our course had been approved by elderly (usually retired or academic) members of my professional body.

Comment [J8]: An unexpected pleasure when I first overcame my reluctance to go to a performance.

Comment [J9]: Notice a growing awareness of the need for life balance.

Comment [J10]: In other words, *totally* self-directed learning can miss much that is worthwhile.

Comment [J11]: I’ve often felt in later years that the wonderful professionalism of top rate advocates and architects is seen in their ability to ask questions of fellow professionals like me, as if they were well versed in my discipline. I’d like to be able to be such a professional, asking good questions, learning from the answers, and so contributing genuinely to interdisciplinary decisions and problem-solving..

Around this time, although not brought up in a church-going family, I decided to explore what the churches had to offer. I didn't get beyond the first one I visited – a former Free Church of Scotland congregation, now back in the Church of Scotland, following the Union of 1929. The Free Church had a wonderful tradition. In protest against the authoritarian power of the lairds (landlords) and the State, they had left the established Church in 1843 at what was called the Disruption. They walked out, in principled protest, overnight becoming congregations without churches to worship in, ministers and families without manses to live in. Within a few years they were a power in the land, with a great commitment to foreign mission as well as building up from having nothing to leading achievements in Scotland. The history and tradition of standing up on principle for autonomy resonated powerfully with me, even although it was by then a thing of the past.

For some time after graduating, my spare time was mainly devoted to competitive rowing. I was a member of several Scottish Championship crews. I was powerfully influenced by an older man who was our stroke, and who held strong views about self-imposed discipline – for the crew and generally in life. Jack was in a way an avuncular or older brother hero figure for me, someone to whom I looked up, not least for the way he trained his 32 year old body to be competitive. From him, I learnt to never admit defeat. We raced once at Aberdeen, and he caught a bad crab at the start. It was obviously hopeless. Even before we had properly begun, we were lengths behind. Yet he furiously drove us pointlessly on – to catch up, and then to lead and to win. I lost more than 8 pounds that afternoon – but we had won, by a canvas. I learnt that day *never* to be put off because a challenge seems impossible.

By this time I was a passionate Scot, although not, I hope, a haggis-basher. I delighted (and still do) in the history, traditions, legal system, music and literature of my country. When many of my university classmates spread their wings to seek their fortunes around the world, I deliberately remained in Scotland, believing (I suppose) that if the able emigrated from our somewhat disadvantaged country, then life would become even poorer for those who remained. Supporting the disadvantaged was to lead me, as Scottish Director for the OU, to support the economically unsound vision of a University of the Highlands and Islands Project – and to work with some of their course teams when I retired. But I anticipate.

In the twelve years which followed graduation, I learnt a great deal on my own and from professional colleagues, and made relatively little use of my formal education. I swiftly gained professional status, and specialised in a variety of fields in civil engineering. I was a section leader at 23, leading a motley ill-paid crew of my own style and age or, in the case of our draughtsman, of more than my age. I specialised in doing jobs against the clock which others had declared impossible or had proved by their failures to be so, but on which I always managed to deliver. I was still refusing to accept that the impossible was indeed impossible.

I instigated a rule in my section. Anyone who came back from a day on the site without having learnt something (by asking or observing) which they and the others had not known previously, had to stand us all a beer. Pecuniary necessity meant that we all learnt and shared a lot in this way. So overall I was learning a great deal about life, relationships, and how to work with and manage and train people. I was the most experienced designer in my section, but I had to learn to pass demanding jobs on to those one level below me, and train them to cope, rather than doing these things myself (more competently). And in turn I had to nudge them to train their own juniors, as I had trained them, just a few years before. Professional life was becoming less challenging, and more humdrum. For gradually each new and even more demanding challenge felt less and less demanding, and more like “just another impossible job”. It was probably time to find new challenges.

A part-time job, lecturing in evening classes, was advertised. I thought it might be like training my apprentices, so decided to give it a try. I enjoyed the experience, and the feedback was encouraging. So I opted to move into academia full time. I gave myself five years to satisfy myself that I could do the job well. At the end of the five years, I did not feel at all satisfied – but I knew that I loved working with learners. So I gave myself an extension, to enable me to go to a two-week summer school at UMIST, advertised intriguingly as being about learner-centred learning. I found in that fortnight that my desire to be a better teacher than those who had taught me quickly translated into a desire to teach differently, and especially to concentrate on promoting learning rather than delivering teaching.

I was inspired by the writings of Carl Rogers and especially by this course directed by Professor Bill Morton. I came home, tore up all my carefully prepared lecture notes from the previous five years, and decided to start anew. I moved as quickly as my conservative colleagues could tolerate towards what was then called independence (or more accurately autonomy) in learning. I progressively offered my students meaningful choices in the rate and approach which they took to their learning, the outcomes which they pursued, and their assessment of the consequent learning and development, which was objectively evaluated as a distinct improvement. As a result, I became less and less concerned with the content which my students would cover, and more with the abilities which I wanted to help them to develop. For I hoped that – as soon as possible – they would responsibly and ably take charge of their own learning and development.

I went on to research (consecutively) in four different fields, to publish in all of them, and to gain higher degrees in two of them – and all of this activity was almost entirely self-directed and self-managed. Mindful of my father's example, I took advantage of British Council funding to undertake staff and curriculum development work in Third World countries, without a fee, for at least three weeks in every year – and gained great strength (and confidence) from these demanding experiences. Eventually I was to take a further undergraduate degree (in social sciences). As a result I have taught in my career in four quite distinct discipline areas. Additionally, a feature of my teaching, which is partly a consequence of my advancing years, and partly a consequence of the rapidity with which the world is changing, has been that almost everything I have taught has been outwith the curricula of the courses I had taken as a student. And that called for more self-direction. It has also reinforced my belief in the transferability of generic abilities.

I am now 77 years old. I still regularly teach undergraduates and postgraduates – though not full-time. Each summer I still carry out a self-appraisal, pinpointing what should feature on my forthcoming agenda for development. I identify the understanding I wish or need to acquire, and the abilities I should hone or develop. My aim is to feel reasonably satisfied with my updating and updating of my personal and professional competences.

My views about learning to be professional have originated from the life history on which I have touched here. In writing these reflections, I have found it difficult to differentiate between three influences. First, there are the practices which appear to have been effective in enabling me to respond adequately to the demands of an ever-changing world. Next, there is what I have tried on principle to embody (apparently with good effect) in the various undergraduate and postgraduate programmes for which I have been responsible. Finally there is what I hope will characterise the university course on which my grand-daughter embarks this September.

I lump all of these together in the next assertive section, where I state a relevant belief, and then, in italics, add a note to amplify its implications.

Comment [J12]: Their toleration was low! Fortunately the one exception was my highly supportive Head of Department.

Comment [J13]: I mourn the demise of the influence of the Education for Capability Manifesto.

Comment [J14]: This is an interesting contrast with present day postgraduate supervision, where fear of adverse dropout rates seems to have led to powerful direction by many authoritarian supervisors.

Comment [J15]: It's easier to take risks outwith your own academic territory, and supportive in so doing to work with willing followers.

Comment [J16]: Is this not true for most of us? The half-life of an electronics degree is said to be less than four years. And new methods of learning emerge rapidly. E-learning is now being overtaken by ubiquitous-learning.

Comment [J17]: With assistance, as ever, from peers and colleagues who help me to identify unperceived needs.

Comment [J18]: I draw a distinction here. I am currently updating myself on new thinking about e-moderation. I am uprating my keyboard speed and accuracy.

What matters to me in “learning to be a professional”?

Ultimately it is my will to become a certain type of person which drives me to cope with the challenges that enable me to become that kind of person. In fact, the more worthwhile the challenge, the greater my resolve.

We should expect development to entail challenge and changes in ourselves, which we will not always find it easy to accept at the time.

I believe I should take early and every responsibility for developing myself as a whole person, with my personal and professional qualities comprehensively inter-related. It is up to me to make my own education more complete – not the people who seek to educate or manage me.

Our personal and professional development should be fully integrated with who we are, and in how we wish and plan to develop.

I have ever yearned for my education to be supportive and inspiring, rather than directive and authoritarian; it should concentrate on enabling and nurturing my development.

Educational experiences should first enable learners to discover who they want to be and might become. They should then support the learners' pursuit of their choices for development and encourage them to see the opportunities in the world around them.

The main drive for my professional and personal development comes from my own aspirations, needs and interests. However, my ambitions can be fired – or extinguished – by others.

Development, while being self-directed, should not be deaf to advice or suggestions or structured assistance available from others.

Rediscovery of the wheel is a potentially wasteful activity. Although for some of us, inventing our own wheels is the form of doing through which we learn to master something in the context in which we are working. There are many effective resources which are already available to me as a learner. These may take the form of courses, resource materials and opportunities organised by others; or they may be around me in examples of objectively judged good and effective practice, which I can emulate in my own ways.

Resources for learning should be sought zealously from what is available. They are most likely to prove useful if their intended outcomes are in accord with goals which learners have already and recently identified for themselves.

There is a powerful role in my development for courses and events which inform me, help me to be aware, or motivate me. But the reflective development of the abilities which carry such learning forward is very much a personal affair.

Development of abilities should be self-managed and self-monitored.

An emphasis on self-direction and self-management should not preclude helpful and facilitative involvement with others – peers, colleagues, mentors or tutors.

Learners of all ages should consciously seek, and expect to benefit from, constructive interaction with peers – and tutors.

I have long been committed to the view that the measure of someone's intellectual ability is not what they know, but the quality of the questions which they ask. I believe that, like all effective learners, I should develop the skills to find things out for myself, with confidence and skills to learn from others who are more experienced and knowledgeable than me.

We need to cultivate the ability to question, which characterised us as young children. Throughout life, we should all consciously strive to interrogate people, data, and resources pertinently and searchingly – so that we learn as much as we can from them.

The longer I relied upon decisions which were made by others on my behalf, the more difficult it was for me to pick up such responsibilities for myself, later; and so the less well prepared I could have been for autonomous life, later.

In higher education, or earlier, learners should develop and use to good effect the abilities to direct and manage their own development, on which they will depend thereafter.

My autonomous development depends *inter alia* upon the exercise of my ability for self-judgement. These judgements apply both in identifying needs and possibilities which should have my attention, and (later) in reviewing the progress I have made in achieving such aims.

Objective self-evaluation, based upon carefully considered data, is an essential feature of a sound process of personal and professional development.

The most worthwhile learning and development for me will be transferable between situations, organisations, professional roles and even disciplines. Analysis, problem-solving, the making of judgements and the effectiveness of interpersonal relationships may differ from one discipline and context to another; but they usually have more characteristics which are transferable than which are idiosyncratic. It is when I have come to conceive of abilities in generic terms (my meta-learning), albeit with considered variations according to context, that I have truly achieved deep understanding and soundly-founded abilities. Then I am better prepared and able to move from one context to another.

Education and personally managed development should eschew compartmentalisation of learning and development; and zealously pursue an effective grasp of the concept of transferability of learning and of abilities.

Just as metacognition is the ability to think about how we think, and is something to be encouraged and exploited; so too, without a name, there is an ability to think about what is entailed in our various abilities, and how they their oversight can be enhanced, which we might call meta-reflection, and is equally rewarding.

We should all develop the ability to review how we review, how we plan and how we monitor our self-directed and managed development.

I am committed to the belief that development should be a joyful process in which I rejoice in encountering new situations, mastering interesting new learning, taking satisfaction from being able to do something better or differently, and in which I am refreshed by each challenging change in direction.

Our agenda for development should always include some items which are there because we simply want to make progress there, or expect doing so to be a novel experience – and fun.

Much the same points are made, in a somewhat different fashion, in the final section of these notes, where I spell out a specification for the type of educational programme I would dearly like to see in place, to cater for life-wide as well as lifelong learning and development.

Learning to be Professional: some propositions to support effective learning

What, then, does this say about curricula and experiences in which "learning to be a professional" matters, and is pursued with potentially good effect?

I believe it is consistent with the views expressed above for undergraduate provision in which students learn to be professionals, to:

1. Ensure that, if "**learning to be a professional matters**", then this is explicitly **acknowledged and valued** in every aspect of the programme –promotional materials, intended outcomes, curricular designs and assessment.
2. Overtly concentrate on encouraging and enabling learners to become **the kind of person they want to become**, personally and professionally. Help them to discover this person and nurture their will to be and become.
3. Incorporate at least important parts of the provision in which students will **self-create, plan and self-direct their learning, manage their activity in learning and developing, monitor progress against aims, and in due course evaluate attainment**.
4. Encourage learners to **create or access real and relevant experiences** that will help them appreciate what being professional means; and value their attempts to make their own education more complete.
5. Place appropriate emphasis on the various **interpersonal abilities** which are key life skills and crucial in professional life. Encourage learners to appreciate that these abilities are developed and practiced in all aspects of their lives.
6. In encouraging development of relevant abilities, urge that careful consideration be given to **life balance**, so that study, employment and social activity are all recognised as important.
7. Ensure that **transferability** of abilities is stressed (especially in assessment), and that evidencing of performance can occur at any point in a programme or outwith it.
8. Stress the importance of self-evaluation as a key professional skill and expect students to **self-evaluate** their developments overall and **holistically**, and not in a compartmentalised arrangement.
9. Place more emphasis on **formative** assessment (which identifies need and scope for development) than on summative assessment (which ranks performance at a given point in time).
10. Accept that if an aim matters to a student, then it matters. Show genuine **unconditional positive regard** for self-directing aims and self-determined outcomes.

11. Ensure that personal development tutoring, in particular, **empathises** with affective needs, which are often more important for learning than cognitive or interpersonal aims.
12. Welcome situations in which tutors learn from or with students, and otherwise exhibit **congruence**.
13. Encourage rigour and **objectivity** in planning and evaluating; discourage subjectivity, while recognising that decisions based upon values are often made in the heart – and poorly justified.
14. Structure the programme carefully to promote interaction with, and support from, peers, with **socio-constructivist** impact on learning and development. Peers can usefully contribute opinions, comparable and contrasting experiences, and insights. Make it clear that peers who assist have been shown in many research studies to profit more than those they assist!
15. Create opportunities for learners to **interact with professionals** in the disciplinary field to provide them with insights into their professional world; and encourage them to engage in professional conversation.
16. Encourage students to learn to be incisive **users** – using resources, tutors, specialists in libraries, IT and elsewhere, and peers – to good effect.
17. Teach and enable learners to practice the skills which allow them to form productive relationships in social environments, and to **network** to good effect. For these are skills which do not come naturally to most students, in relation to learning and developing purposefully and effectively.
18. Overtly discuss what being professional means, and encourage the pooling of perceptions based on learners' own experiences. **Encourage them to identify people whom they admire for their professionalism, and to analyse what it is that defines their professionalism.**

The question I always have to ask myself is how well do the experiences I design match up to these high ideals?

Well, that's what I think. **But what do you think?**

If you would like to comment please contact me at J.Cowan@hw.ac.uk