
5 Teaching entrepreneurship at university: from the wrong building to the right philosophy

Kevin Hindle

If you want to encourage entrepreneurship, it should be through some kind of apprenticeship. That would be a wonderful experience. (Birch, in Aronsson, 2004, p. 289)

The way in which a university should function in the preparation for an intellectual career, such as modern business or one of the older professions, is by promoting the imaginative consideration of the various general principles underlying that career. Its students thus pass into their apprenticeship with their imaginations already practised in connecting details with general principles. (Whitehead, 1929 [1967], p. 96)

The solution which I am urging, is to eradicate the fatal disconnection of subjects which kills the vitality of our modern curriculum. (Whitehead, 1929 [1967], p. 6)

Introduction: is entrepreneurship education the right stuff in the wrong building?

A large part of my life's work has been an attempt to educate entrepreneurs and teach about the processes of entrepreneurship and innovation. When I began to do this, in 1983, there was very little published information on the specific topic of entrepreneurship education – at university or anywhere else. Even in the late 1980s and early 1990s, there was still only a relatively small literature of entrepreneurship education (see, for instance, Plaschka and Welsch, 1990). In recent years, that previously missing literature has exploded and is growing exponentially. A few examples will illustrate the proliferation that is occurring. There is now a purpose-dedicated journal of entrepreneurship education: *International Journal of Entrepreneurship Education* (IJEE). Various business think tanks have well-developed resources devoted to entrepreneurship education (see, for instance, the Small Business Institute site at www.smallbusinessinstitute.org). Respected scholars Karl Vesper and Bill Gartner's inventory of entrepreneurship education programs (Vesper and Gartner, 2001) gets ever bigger. Conferences on how to teach entrepreneurship have reached institutional status. Syracuse University's Martin J. Whitman School of Management hosts an 'Experiential Classroom', a national program that aims to increase the skills of those who teach entrepreneurship (Syracuse University, 2004). There is now even a strong commitment to making the often arcane results of entrepreneurship research readily teachable (Hindle, 2004; Hindle et al., 2004). In the learned and versatile Jerry Katz, the discipline of entrepreneurship now has a historian of United States entrepreneurship education (Katz, 2003). Debates about entrepreneurship education at the highest level of national policy are occurring in many countries – with Germany particularly active in seeking the 'right' entrepreneurship curriculum (Klandt, 2004; Koch, 2003). Awards for excellence in entrepreneurship education have gone beyond plaques and now include dollars – the Academy of Management Entrepreneurship Division alone has three awards for pedagogy and one for the annual best PhD dissertation. In September 2004 the Academy of Management's journal

devoted to learning and education published a special issue devoted to entrepreneurship education (Green et al., 2004).

So, with all this flurry of activity focused on the work of my life and heart, I should be thrilled to the marrow. Instead, I am apprehensive, even a little sad. Why? It is not because I feel that any of the rapidly proliferating contributions are not vital or useful. It is because I believe that they could be so much *more* useful if we in the entrepreneurship education community took more time to reflect on some philosophical and contextual fundamentals of the education process itself. What we are doing in racing to detail is very dangerously like preaching to the converted in the absence of reflecting upon why it all matters.

That is what I want to do in this chapter: a little reflection on some core educational issues aimed at establishing philosophical credibility for our endeavors among communities of skeptics.

We who teach entrepreneurship at university often feel that we should get right down to details. We are prone to dismiss as trivial and unnecessary things as basic as the formal need to refute the incorrect, but still highly prevalent, belief that entrepreneurship cannot be taught. We think we know that this is such a stupid proposition that we do not bother to argue against it systematically. It is beneath our dignity. We should not be so complacent. Here is a test for you. At your university, ask 10 professors in what may be called traditional disciplines (mix up natural sciences, humanities and social sciences) for their 'honest opinion' about whether entrepreneurship can or should be taught at university. Try to get them off the record and beyond the bounds of any need to answer in a politically correct way. Many universities have a lip-service commitment to entrepreneurship and/or innovation in their mission statement. Get beyond superficial mouthing of platitudes and 'the party line' and ask your straw poll of professors what they *really* think. My hypothesis is that your distillation of the predominant emergent view will be that first, entrepreneurship cannot be taught because 'entrepreneurs are born not made' and, second, even if it could be taught, university is not the right place to do it.

The key point I am making is that though we, entrepreneurship educators, have convinced ourselves that entrepreneurship education at university is both feasible and desirable, we have shirked the responsibility for arguing the axiomatic and logical justification of those propositions to the wider world.¹ If the rest of the university faculty, our closest colleagues, in their heart of hearts do not believe in the viability of entrepreneurship education at university, the skepticism of the wider community is likely to be vast indeed. Against this background, the current explosion of papers on entrepreneurship education is at risk of merely preaching to the converted. For entrepreneurship scholars to make our recent profusion of offerings more credible to a wider audience we have to tackle, overtly, a few philosophical fundamentals and even go so far as to state what is axiomatic in our beliefs.

The particular mistake made in most of the current entrepreneurship education debate – experts talking about expertise – is that commentators often focus disproportionately and anachronistically upon one unit of analysis, the curriculum, as if it were a disembodied entity. But an academic curriculum (or a single course within it) is a dependent variable. Most importantly, it depends on the combined interaction of the teacher, the students, and the environment in which the transfer of information between them takes place. Those are the fundamental variables I would like to explore in this chapter. Since I want to focus my discussion on entrepreneurship education at university, I will start at the right generic location, a university campus but an allegedly wrong specific location, its business school.

106 *Handbook of research in entrepreneurship education*

Imagine you are on the campus of a university in North America, Europe or any other geography that contains universities that broadly comport with what might be called the 'Western educational tradition'. This university, as so many – probably too many – do, has a building which houses a business school whose principal focus is delivery of the university's MBA program. Chances are very good that if the university offers any courses or programs in entrepreneurship education, this is where you will find them. This fact is both intriguing and potentially depressing because we have it on good authority that the business school is entirely the wrong place in which to teach entrepreneurship. I will not spend too long on this point of view; I will simply locate it between two influential statements of the case: one in 1987 and one in 2004.

It is always dangerous to use the adjective 'seminal' with respect to a journal article in an academic discipline. I am going to use it to describe an article published in the *Journal of Business Venturing* in 1987. Its superficially date-bound title seems out of place for a durable article. Yet 'Entrepreneurship education in the nineties' by W. Ed McMullan and Wayne A. Long is likely to have relevance so long as entrepreneurship education is discussed. It first appeared with an asterisk in the title and the following editor's note: 'Though this article is not empirically based, it addresses a topic that is sufficiently important to warrant a one-time exception to the editorial policy' (McMullan and Long, 1987, p. 261). The essential challenge of their argument is summarized in two sentences: 'For a number of reasons, current methods for delivering entrepreneurship education have to be judged as inadequate. This new field will need to extend beyond the boundaries of schools of management or engineering, perhaps even beyond universities' (McMullan and Long, 1987, p. 262).

The primary problem as articulated by McMullan and Long was and remains a generic problem of teaching *model* (a pedagogic regime often resident in business schools). The specific *place* where the wrong model is found (business school or anywhere else) is a second-order issue. That having been said, it is fair to generalize that the MBA model traditionally employed to teach middle and senior managers how to conduct the affairs of mature, large organizations is inappropriate to the teaching of entrepreneurship. McMullan and Long argued that entrepreneurship demands, above all things, *experiential* teaching methods and milieus. They then argue that this is fundamentally at odds with the orientation of the typical university-based business school in terms of the way material is both taught and evaluated.

In 2004, the authoritative voice of David Birch argued the same thesis. Birch is an almost iconic figure in the field of entrepreneurship. He is the progenitor of much of the research and policy interest in entrepreneurship. As reported in the preface to Magnus Aronsson's recent interview with him (Aronsson, 2004, p. 289), Birch's pioneering research findings were simple and easy to understand for policy-makers: new and small businesses create the lion's share of new jobs. His findings became the foundation for government initiatives to support growing high-growth small firms – the firms to which Birch gave the immortal nickname 'gazelles'. One might, at a stretch, argue that the current volume of interest in entrepreneurship as a discipline begins with Birch. This doyen of our discipline certainly believes that the business school is the wrong building to house entrepreneurship education.

Quite a few business schools teach you exactly the opposite of entrepreneurship. They teach you to do the quarterly numbers for Wall Street, teach you to conserve, teach all the wrong motivations

for being an entrepreneur, teach you to take something that is there and make certain that it does well on Wall Street. Basically, business schools teach you to work for somebody. (Aronsson, 2004, p. 290)

So, if McMullan and Long and Birch and a host of others are to be believed, entrepreneurship educators at university are faced with a very real and most unlovely paradox. It seems that the business school is not where entrepreneurship should be taught at university and, yet, that is the building statistically most likely to house it (Vesper and Gartner, 2001). Things get worse as we get more analytical. The business school–entrepreneurship education paradox is actually only a subset of seven larger, interrelated problems. The first is: can entrepreneurship be taught at all? There are many strident voices answering ‘no’. The second is: if entrepreneurship can be taught at all, is the university an appropriate place to offer this teaching? The ‘no’ case is strongly advocated by many. Catching up with our paradox, we have a third problem: if the university is an appropriate place to teach entrepreneurship but the business school is the wrong place within the university to house these studies, where should they go? These questions in this order should logically take precedence over a fourth important question: ‘who should teach entrepreneurship?’ and a fifth: ‘who should learn?’ and a sixth ‘how should it be taught?’² Finally, we are in a position to ask the ontologically integrational seventh question: ‘what should be taught?’

These seven nasty questions are the rude graffiti sprayed on the imposing façade of our shiny business school. In this chapter I will try to bring out some solvents and apply some elbow grease in an attempt to rub off the seven graffiti, one by one.

Can entrepreneurship be taught at all? Teaching *it* and teaching *about it*

As a predicate to all that follows in this chapter, I adopt the widely used definition of entrepreneurship as a research field provided by Shane and Venkataraman (2000, p. 218): ‘We define the field of entrepreneurship as the scholarly examination of how, by whom and with what effects opportunities to create future goods and services are discovered, evaluated and exploited.’

As Davidsson (2004, *passim*) points out, entrepreneurship as a research field is different from entrepreneurship as a phenomenon, but for efficiency of exposition I will be satisfied with a broad definition of entrepreneurship education, which says that it is: the transfer of knowledge about how, by whom and with what effects opportunities to create future goods and services are discovered, evaluated and exploited. Put this way, it is immediately apparent that entrepreneurship education is divisible into two main areas: ‘teaching *it*’ and ‘teaching *about it*’.³

‘Teaching *it*’ embraces the vocational area of entrepreneurship: the practical components of a very applied area of knowledge. Just as medicine, or engineering, or law, or professional management has a vocational (as well as a theoretical and societal) component, so does entrepreneurship. I often wonder why there are so many otherwise intelligent people who are prone to ask the old chestnut question: ‘Aren’t entrepreneurs born not made?’ Or worse, they avoid interrogation of the proposition altogether and simply assert that entrepreneurs are born and cannot be made or at least that entrepreneurship cannot be taught. The same people are very unlikely to assert that doctors, or lawyers or engineers are ‘born not made’ or that the vocational skills of these professionals cannot be taught.

108 *Handbook of research in entrepreneurship education*

I suspect that the principal reason for entrepreneurship as a professional phenomenon (as distinct from medicine, law and so on) having to endure such an absurd proposition is that many people must carry a clear but unrecognized distinction in their heads about the *basic mechanics* of doctoring (or law or engineering) versus the concept of *being a doctor* (or lawyer or engineer). Most people intrinsically make this distinction for the non-entrepreneurship professions but fail to carry a similar distinction with respect to the entrepreneur. They accept readily enough, for instance, that a person of reasonable intelligence and dexterity can be taught the fundamental principles of medicine and how to apply them to an act of surgery; say taking out an appendix. No doctor is ever 'born', *qua* doctor. All are made: through education. However, some doctors *are* better than others, through a combination of different *intrinsic factors* (for example, greater intelligence, greater natural dexterity), different *levels of stimulus* (for example, a more or less conducive environment) and different *extrinsic factors* (for example, deeper and longer study of principles, more practice at the craft of surgery). It is no different for an entrepreneur.⁴ All aspirants have to learn their craft somehow, and many do. Ergo, entrepreneurship can be taught. Not necessarily all of entrepreneurship theory and practice can be taught to everyone, any more than the principles and details of human anatomy can be absorbed by an inadequate intelligence or delicate surgical skills can be acquired by an amputee. But there is absolutely no *a priori* justification for saying, categorically, that entrepreneurship cannot be taught.

So, why do so many people believe this – or assert it without even giving it enough thought to warrant the title of 'belief'?

The principal reason is simply confusion of an end result (an entrepreneur exists) with the processes (including but not limited to learning and behavioral change) that produced the end result. The entrepreneur underwent a process of education that contributed to the nature of her current existential state. The confusion arises because most people know a lot more – and a lot more *about* – doctors than they do entrepreneurs or *about* entrepreneurs. The *Global Entrepreneurship Monitor* (GEM) research in all countries (Hindle and Rushworth, 2004; Reynolds et al., 2004) indicates that the majority of the population claim never to have met an entrepreneur. Most people in a developed economy have met a doctor. When people meet or hear about a distinguished surgeon, their knowledge of the world enables them to know that the surgeon must have had a long training including many successes and failures. When they meet or hear about a successful entrepreneur people tend not to reflect on the skills that the person has had to acquire but only on the results that it has produced. These results (often including substantial personal wealth) are abnormal in terms of the standard risk–reward profiles of economic actors with whom people are more familiar. The entrepreneur thus appears to be very different and very special – just as a doctor dispensing modern medicine in an underdeveloped environment might seem to uneducated villagers to have been born with special skills. There is the added complication that there is no such thing as a *lucky* brain surgeon: warning – don't do it at home! There is such a thing as a lucky business initiator: somebody who succeeded in business despite himself. But such a person should be called 'a lucky person' not 'an entrepreneur'.

So, provided that one does not confuse the aptitudinal and motivational predicates of the student with the transferability of the subject matter, it is clear that the vocational aspects of entrepreneurship can be taught. Some of these aspects are the same or very

similar to the vocational aspects of management: skills in accountancy, finance, marketing, strategy, organizational behavior, and so on. Some are specific to entrepreneurship (in the sense of practicing innovation and creating new organizations to pursue an opportunity) as distinct from management (optimizing resources and relationships within an existing organization). Such specific skills of entrepreneurial capacity include opportunity evaluation and entrepreneurial business planning.

If we can accept that the skills of doctoring can be taught – to some people, not all – even if the aptitude and motivation to be a great doctor cannot, we should have no trouble accepting that the skills of entrepreneurship can be taught even if the aptitude and motivation to be a great entrepreneur cannot. In particular, we must never confuse the difficulty or even impossibility of motivation with the possibility of knowledge transfer. People do not often make this mistake when observing the field of medicine or most other fields; they do when contemplating the field of entrepreneurship. They should not.

So much for 'teaching it'. What about 'teaching about it'?

In entrepreneurship education, as in every other professional domain, we need to distinguish teaching concerning the phenomenon itself (the vocational domain) from teaching *about* the phenomenon (its meta aspects; its theory and the way that this phenomenon impacts on other phenomena). The theory of medicine advances knowledge and improves practice and so does the theory of entrepreneurship (see Fiet, 2000). The practice of medicine has effects: it impacts on society and the economy in many and varied ways. So does the practice of entrepreneurship. Just as the substantive vocational component of entrepreneurship can be taught, so can its theory and effects.

The ways and places in which we teach entrepreneurship

Many people who seem to be saying that entrepreneurship cannot be taught are really saying: 'You can't teach it in this manner or in this place.' So it is with David Birch. When asked by Magnus Aronsson, 'Can entrepreneurship be taught?', his immediate answer was: 'If you want to teach people to be entrepreneurs, you can't' (Aronsson, 2004, p. 289).

It is safely predictable that this 'sound bite' will be quoted out of context thousands of times in the coming years by those who, for whatever reasons, want to perpetuate the myth of entrepreneurship's non-teachability. It is going to damage both the cause and the credibility of university entrepreneurship educators unless we put some philosophical apparatus in place to deal with it. Birch's statement seems fairly definitive. Yet a mere one sentence later Birch goes on to say: 'If you want to encourage entrepreneurship, it should be through some kind of apprenticeship. That would be a wonderful experience' (Aronsson, 2004, p. 289).

This is immediately followed by Birch's next assertion (quoted in the previous section of this chapter) that business school is the wrong place to teach entrepreneurship. So, taken in context, what we have here is *not* an assertion of the absolute impossibility of teaching entrepreneurship but a preference for the *mode and location* of instruction. When it comes to entrepreneurship education, Birch likes the possibility of learning in an active business environment from a proven performer, and he is skeptical about the efficacy of prevailing norms at most business schools. So, rather than resting satisfied with a facile approach – 'David Birch thinks that entrepreneurship can't be taught and we know you can, so he's wrong' – entrepreneurship educators should probe deeper. In the concluding

110 *Handbook of research in entrepreneurship education*

section of this chapter I will suggest that a very useful agenda for entrepreneurship education research might be based upon creative investigation of the utility of the apprenticeship concept. Meanwhile, I rest content with tossing the hoary old non-teachability chestnut into the fire by stressing my appeal to basic logic: there is no a priori reason that entrepreneurship cannot be taught. We can teach it; we can teach *about* it and we can teach it in lots of different ways and places.

This brings the argument to the point where issues of educational method and educational context raise several a posteriori reasons that entrepreneurship may be *difficult* to teach. To some of these we now proceed. The first is a location issue.

Entrepreneurship and the university: the principle of vocational transcendence and the 'plus-zone' challenge

The answer to this question requires, first, an overt statement of one's belief in what distinguishes university education from other sorts of education and, second, a recognition of the important distinctions and relationships between the 'teaching it' (vocational) and 'teaching about it' (theory and impact) aspects of entrepreneurship.

To deal with the first issue, it is time for me to introduce an intellectual hero: Alfred North Whitehead. My views on education in general and university education in particular are substantially derived from the great philosopher and substantially contained in just one of his many books. Whitehead first published *The Aims of Education and Other Essays* in 1929. Whitehead is the reason that the question 'why?' will not feature in this chapter. Because I subscribe to Whitehead's educational philosophy, I am able to treat the question 'Why would anybody want to study any subject matter – including entrepreneurship – at university?' as answered. Whitehead argued: 'The function of a University is to enable you to shed details in favour of principles' (Whitehead, 1929 [1967], p. 48). People reading these words ought to be clear that Whitehead, though a giant among philosophers, was no aloof boffin living in an ivory tower. He also wrote: 'I am certain that in education wherever you exclude specialism you destroy life' (Whitehead, 1929 [1967], p. 10). He was an enthusiast for business schools (Whitehead, 1929 [1967], pp. 91–102, *passim*) and even wrote for the *Harvard Business Review* (Whitehead, 1933). But he insisted that business school curricula should never be allowed to ossify and ought to favor experimentation. I call Whitehead's philosophy, built on this unique distinction of university education from all other types, 'the principle of vocational transcendence'. I believe that much of the current debate about entrepreneurship education at university is weakened through inadequate attention to this axiomatic principle and the philosophical issues it raises. Whitehead wrote:

The justification for a university is that it preserves the connection between knowledge and the zest for life, by uniting the young and the old in the imaginative consideration of learning. The university imparts information, but it imparts it imaginatively. At least, this is the function which it should perform for society. A university which fails in this respect has no reason for existence. This atmosphere of excitement, arising from imaginative consideration, transforms knowledge. A fact is no longer a bare fact: it is invested with all its possibilities. It is no longer a burden on the memory: it is as energising as the poet of our dreams, and as the architect of our purposes. (Whitehead, 1929 [1967], p. 93)

I say then, that the university *is* an appropriate place to study entrepreneurship but only for people who want to consider the phenomenon imaginatively rather than

mechanistically. For me, this is a foundational axiom. If you believe that a university is just another venue for transfer of vocational instruction – no matter how technical or elevated that instruction may be – then we are not on common ground. Whitehead's most famous work is, of course, his co-authorship with Bertrand Russell of *Principia Mathematica* (Whitehead and Russell, 1910, 1912, 1913), their attempt to argue the totality of mathematics as a subset of logic. My specialist training and intellectual capacity are insufficient for adequate comprehension of that work. But I am able to appreciate great wisdom expressed in great prose. Because of their lucidity, economy, comprehensiveness and elegance, the 10 chapters of Whitehead's *The Aims of Education* have always been, are now and are likely to remain for me the pinnacles of educational philosophy. Within the collection, of particular relevance to the subject matter of the present chapter is Whitehead's essay, 'Universities and their function' (Whitehead, 1929 [1967], pp. 91–102). It holds a double relevance to my purpose because Whitehead made his appeal for the fundamentally generic function of the university with specific reference to the rise of business schools at a time when they were rare rather than commonplace.

The novelty of business schools must not be exaggerated. At no time have universities been restricted to pure abstract learning . . . There is however this novelty: the curriculum suitable for a business school, and the various modes of activity of such a school, are still in the experimental stage. Hence the peculiar importance of recurrence to general principles in connection with the moulding of these schools. (Whitehead, 1929 [1967], p. 92)

The way in which a university should function in the preparation for an intellectual career, such as modern business or one of the older professions, is by promoting the imaginative consideration of the various general principles underlying that career. Its students thus pass into their period of technical apprenticeship with their imaginations already practiced in connecting details with general principles. The routine then receives its meaning, and also illuminates the principles which give it that meaning. Hence instead of a drudgery issuing in a blind rule of thumb, the properly trained man has some hope of obtaining an imagination disciplined by detailed facts and by necessary habits. (Whitehead, 1929 [1967], p. 96)

How should we meet Whitehead's call to 'promote the imaginative consideration of the various general principles underlying' entrepreneurship? In a previous paper (Hindle, 2001) I labeled this as meeting the 'plus-zone challenge': the challenge to transcend vocational mundanity and specifics in an entrepreneurship curriculum and attempt to do something unique and valuable for the 'whole person', the entirety of every student. Some of what I had to say in that paper is redeveloped and expanded here.

For an entrepreneurship education program to be truly worthy of a university setting, it needs some intellectual challenges that take it beyond mere training and give it claim to being education. These challenges revolve around philosophy, subject-critique and self-critique. On the one side, what I am about to argue will sound too 'theoretical' to those who would seek to limit entrepreneurship's teaching environment to a vocationally orientated training regime. On another side, what I am about to argue will sound too 'practical' to those who would seek to limit the university's canon to the classical minimum espoused by, say, Allan Bloom, in his eloquent argument that when a university tries to do too much, it achieves too little (Bloom, 1987). I will take the risk of pleasing neither audience because I believe that entrepreneurship, as a major social phenomenon and a deeply important realm of human behavior, can provide the basis for learning that

112 *Handbook of research in entrepreneurship education*

transcends specialist functionality and does something for the total development of each human being who studies it. It is this strange and rare experience of learning something universal from the deep study of something specific that is the great thing that distinguishes a university – look at the *universality* so broadly proclaimed in that name – from all other halls of instruction. Education is literally a ‘leading out of’, a ‘leading beyond’. Whatever the specific curriculum focus, whatever the age, whatever the model of university governance in or out of vogue, university *education* always requires a plus sign at its heart. It requires first that the specific subject matter on its curriculum is important to humanity. Second, it requires transcendence. A great program extends students’ horizons of humanity.

Entrepreneurship needs no justification to study it on the grounds of its importance to humanity. It is a wellspring of economic growth, social renewal and personal development. Such an important subject is worthy of deep research, significant reflection and sustained dialogue. When a subject – any subject – has the depth of importance which entrepreneurship possesses, I believe it is capable of being the foundation for great education. Here, I mean education in the sense that Allan Bloom (1987, *passim*) meant it but not limited to the narrow range of subjects he claimed were capable of providing its core. The essential university experience in my view involves an environment where a person’s ability to exercise complete freedom of enquiry never results in wasted time. If anyone learned physics from Einstein, that person’s explorations and speculations would never be futile. That person would always be in danger of discovering new worlds. If another person learned philosophy from Bertrand Russell, her humanity would expand in proportion to her reading. University education is about getting to the beyond through the agency of a great teacher. It provides what I call ‘plus zone’. The concept of the ‘plus zone’ is embodied by Alfred North Whitehead’s characterization of university education as the whole that remains when all the parts you were taught have been forgotten.

Accordingly, the ‘plus zone’ is the area where curriculum attention should be given to transcending vocational specifics in the quest for general principles. It is their personal acquisition of general principles that will ultimately give any university student his or her unique voice in the conversation of humanity. In a later section of this chapter, I will provide a diagrammatic representation of an approach to curriculum design, which might result from application of a consciously applied ‘plus-zone’ approach. At this point of the argument, though, I wish to limit myself simply to emphasizing the importance of the plus-zone approach and its fundamental compatibility with entrepreneurship as subject matter, because skepticism about the place of entrepreneurship comes from two directions. It is not only practitioners who are skeptical about whether entrepreneurship education belongs in a university. Many respected and respectable scholars within the university would be, and are, frankly appalled at the notion that something as amorphous and messy as entrepreneurship should even be considered as worthy subject matter for university education. Allan Bloom provides an excellent example.

Bloom was a man who would no doubt have cursed the sacrilege of tainting the groves of Academe with something as base as an entrepreneurship curriculum. He would have done it with Ciceronian eloquence and probably in Ciceronian Latin. Yet would-be entrepreneurship scholars ought to pay him some heed. In *The Closing of the American Mind*, Bloom wrote:

To sum up, there is one simple rule for the university's activity: it need not concern itself with providing its students with experiences that are available in a democratic society. They will have them in any event. It must provide them with experiences they cannot have there. (Bloom, 1987, p. 256)

I answer this charge by *half* agreeing with Bloom because, contrary to Bloom's view, I believe in *two* simple rules: not one. Yes, first and foremost (see Whitehead, 1929 [1967], *passim*) the university's task is to provide that imaginative contemplation of specific knowledge that can be had nowhere else. But, second – and no less importantly – the modern university *does* have to concern itself with 'providing experiences' closely related to the dynamics of the dreaded 'real world'. It cannot stand completely aloof from democratic society like some kind of Greek Chorus, wailing in the wings. This is so for reasons too numerous to discuss fully within the confines of this chapter. It must suffice to say that in an age of technology, some experiences of democratic society are simply not available *without* active university involvement. Contrary to Bloom's argument, for many issues of *content* the modern university must function as a conduit – moving the student to and from other learning and experiences in time, space and mind – not anchoring the student to a body of received wisdom in an ivory tower. But at the level of *context* Bloom remains totally right.

So, my first rule for people who want to develop entrepreneurship curricula suitable for delivery at university is: subscribe to Whitehead's philosophy about the role of university education. My second rule is that you must ask the great question posed by Allan Bloom in *The Closing of the American Mind*. What is it that your university can add to an entrepreneurship curriculum that will make the learning experience unique? What do you have to put in your entrepreneurship program to provide an experience that your students can have *nowhere else*? The challenge of the plus zone is to find a stimulating answer to this question. If your university has an answer, or is attempting to find one, you have or will create an entrepreneurship curriculum worthy of a university: and a university worthy of trying to teach entrepreneurship. As usual, Whitehead says it best: 'The careful shielding of a university from the activities of the world around is the best way to chill interest and to defeat progress. Celibacy does not suit a university. It must mate itself with action' (Whitehead, 1936, p. 267).

In this chapter, three questions now stand between us and the ability to argue for a suitable curriculum development model for teaching entrepreneurship at university. They are: where, who and how?

Where within the university does entrepreneurship belong?

There is no single, universally correct disciplinary location for entrepreneurship education. Within the university, entrepreneurship belongs wherever you want to put it so long as the key condition of imaginative transcendence of the immediately vocational is met. You teach it wherever the right mindset prevails. In actual university practice, there is a healthy proliferation of locations emerging. There are liberal arts–entrepreneurship double degrees on the rise (akin to the commerce–law or arts–law degrees that have proved so successful); some entrepreneurship degrees are housed, not in business schools, but in engineering schools, schools of design, social science faculties, and special centers devoted to nothing but entrepreneurship. Some courses are undergraduate, some are graduate. Of course, not all (if any) business schools themselves comport with standardized negative stereotypes.

114 *Handbook of research in entrepreneurship education*

The only rule, based on Whitehead's educational philosophy, must be for your university to put its entrepreneurship offerings wherever there is a passionate desire to teach them well.

the first requisite for educational reform is the school as a unit, with its approved curriculum based on its own needs, and evolved by its own staff. If we fail to secure that, we simply fall from one formulation into another, from one dung-hill of inert ideas into another. (Whitehead, 1929 [1967], p. 13)

Once you accept that 'the proper function of a university is the imaginative acquisition of knowledge' (Whitehead, 1929 [1967], p. 96), it is immediately apparent that there is an infinity of conceptual and physical locations suitable for delivery of entrepreneurship education within a university. The only place you must not put it is anywhere where imagination is likely to be stifled. If your business school is such a place, then your business school is not fit to teach anything at university, let alone entrepreneurship. Fix the imagination problem and your business school will serve as a great location for entrepreneurship education: as would anywhere else on campus. The location problem falls to the ground. The business school can remain standing so long as you fill it with the *university* principle of vocational transcendence.

Who should teach entrepreneurship at university?

The following section borrows extensively from my writing in chapter 13 of a co-authored book (Legge and Hindle, 2004, pp. 375–7).

Many universities now offer PhD programs in entrepreneurship. Those who complete such programs are eligible for appointment to the teaching staff of their own or another university. They will join a cadre of allegedly professional entrepreneurship educators – most particularly in the USA, where formal entrepreneurship PhD programs are most heavily institutionalized. Many of the younger cadre have not had, and may never get, much direct involvement in business. This raises hackles in several barnyards. It should not: but it does. The distinction between *pouvoir* and *savoir* is an ancient one, but there are many respected fields in which teachers are not expected to have had extensive practical experience. For instance, most teachers of criminology have no criminal record. Both society at large and students of criminology regard this as a good thing. Most coaches of elite sportspeople cannot perform at the level of those they instruct. So it is with tutors of opera singers, actors and performing artists of all kinds. No currently alive recognized authority on Julius Caesar has ever visited ancient Rome.

Yet, in many quarters, there is a substantial belief that only those forged in the fire of practical experience have a 'right' to teach entrepreneurship. I have attended a great many entrepreneurship seminars, meetings and events involving mixed participants: entrepreneurship practitioners, entrepreneurship students, educators and researchers. I have never attended any such mixed gathering at which the following scenario failed to occur. At the conclusion of an address by an entrepreneurship academic, comes a time for questions and discussion. There will always be a question from the floor (usually from an established entrepreneur or someone who believes themselves to be an entrepreneur) that goes something like: 'and how much shareholder value have you created in the last 18 months?' or, 'are you a millionaire? If you're not, how do you expect to train any?' These kinds of questions are representative of the extremity of what may be called the pro-practitioner (or cigar-smoke-in-your-face)

view concerning the eligibility to teach entrepreneurship. In sharp contrast, Professor Ed McMullan of the University of Calgary expresses a strongly pro-academic view. He has over 30 years' experience as an entrepreneurship educator and researcher. In June 2002 he spoke at a seminar held in the University of Saskatchewan, at a conference designed to confront that institution with a range of issues germane to its proposed establishment of a new entrepreneurship program (McMullan, 2003). McMullan confronted the university with his view of the state of the art of entrepreneurship education.

He argued that entrepreneurship is a field characterized by 'missing educators'. He claimed that figures in his possession demonstrate that only 11 percent of all registered United States university faculty members involved in teaching entrepreneurship courses actually have a PhD in the subject. Most instruction is conducted by ad hoc 'adjuncts' – practitioners contracted to give 'one-off' elective subjects in undergraduate or MBA programs. Moreover, most full-time, PhD-qualified faculty allegedly specializing in entrepreneurship he calls 're-treads'. These are people whose 'mother' discipline is not entrepreneurship but accounting, or marketing or organizational behavior, or psychology or anything but entrepreneurship. With respect to entrepreneurship, McMullan claims, these people are, effectively, self-educated scholars switching fields. McMullan argues that nowhere else in the university would formally unqualified instructors be so widely accepted as the norm. For instance, most chemistry academics are expected to have qualifications in chemistry as distinct from say, physics or biology. He believes the problem is particularly acute at professorial level. Many chairs of entrepreneurship fall 'captive' – his word – to people qualified in a discipline other than entrepreneurship; and many are awarded to practitioners fêted for their business acumen or their prominence in a network that may result in access to potential sources of financial support for the institution and its programs.

Between these extremes – only experienced practitioners or only highly trained, educational specialists – one can fantasize about the 'ideal' person to teach entrepreneurship. In my view, she would be a multi-lingual serial entrepreneur of international prominence whose several business failures led only to renewed determination and ultimate success as the leader of several highly ethical high-growth ventures of international prominence. Somewhere along the line, she would have had time to complete an award-winning PhD thesis specifically in an entrepreneurship program at an acclaimed, probably American, university. Several years' teaching experience – not as an adjunct but as a full faculty member – complemented by a strong publications record exclusively in A-grade, highly focused, peer-reviewed entrepreneurship journals would be desirable. The skills package would be rounded out by a track-record of successful consulting assignments and possession of a powerful media persona, and the gift of natural persuasion – particularly as it affected the attraction of sponsorship and research grants. She would be so wealthy, so public-spirited and so passionate about entrepreneurship education that a salary package would not be required and all funds from her richly endowed chair could be directed to dispassionate entrepreneurship research. Needless to say she would be happily married with two beautiful children to whom she was the perfect mother.

Of course, we cannot have myths. So, what is feasible?

Entrepreneurship is a relatively new discipline (formally gaining its own distinct divisional status within the United States Academy of Management in 1987). However, it has a voluminous literature now sufficiently large that it is unlikely that one person will ever be able to read the entire refereed output in the field. Undoubtedly, professional qualifications

116 *Handbook of research in entrepreneurship education*

at PhD level should be the goal of everyone who desires, as a profession, to teach in this field. Demand for qualified teachers outstrips supply. It is also quite an eclectic field. So, the fact that academics come to it from a variety of perspectives may have some positive benefits – so long as the commitment to master the new field (rather than re-hash the shibboleths of the old field in a new place) is genuine.

The aim in any entrepreneurship faculty should be for a well-balanced, well-mixed program *team* of committed, good teachers – not a search for universal perfection in every single teacher. This may mean a higher proportion of team-teaching and multiple presenters within the one subject. Students could greatly benefit from a sprinkling of well-chosen adjunct and sessional teachers whose presentations were based on commitment to balanced education not mortgaged to an egocentric perspective of unanalyzed personal experience. (The latter is a real risk when getting a proven entrepreneur to teach without knowledge of teaching.) In a very different way, students would undoubtedly benefit from exposure to a very scholarly teacher who ‘really knows the literature’. Through provision of multiple perspectives – the differing strengths of differing people – it ought to be possible to avoid the worst excesses of inadequately prepared faculty. Plurality of perspective is likely to be the best safeguard against both the ‘money proven’ adjunct practitioner on an ego-trip and the ‘unworldly’ academic lacking in business acumen and empathy.

But above and beyond all this I turn, as always, for guidance to Whitehead.

In my own work at universities I have been much struck by the paralysis of thought induced in pupils by the aimless accumulation of precise knowledge, inert and unutilised. It should be the chief aim of a university professor to exhibit himself in his own true character – that is, as an ignorant man thinking, actively utilising his small share of knowledge. (Whitehead, 1929 [1967], p. 37)

Teachers will vary in perspective and background. But if they have knowledge worth imparting and are unafraid to be themselves and show that self, warts and all, to students in a creative engagement to forge greater mutual knowledge, they will serve the students well. I will return to this theme in the concluding section of the chapter.

Who should learn?

The answer to the question of who should go to university to study entrepreneurship can be blessedly brief. On the demand side, the answer is: students with enquiring minds who genuinely want more from their study than a compact set of vocational guidelines and a credential entitling them to letters after their names. Only students who subscribe to the principle of vocational transcendence should study entrepreneurship at university. If that principle has no appeal, then university is the wrong place. Students, no less than teachers, have to value the university’s distinctive competence. Employing Whitehead’s philosophy, the student’s key question must always be: why am I at university? The answer must always be: because, through mastering the detail of this subject matter and thinking about it, I will be mastering myself and some of the mysteries of the world: I will become a constructive and valuable voice in the conversation of humanity.

On the supply side, the university can never be a mass marketer. It ought to think about the distinctive competencies and needs of the particular students it wishes to attract. If a university entrepreneurship program wants to attract overseas students or Indigenous students or any special constituency, the program offering will need to incorporate great

cultural sensitivity and respect for diversity. Entrepreneurship is a plural, societal endeavor. Employing Whitehead's philosophy, the university's guiding question must always be: whom are we teaching? And the answer must always be: the whole person, a unique person, not just some abstracted economic part-person.

How should it be taught?

There is now such a plethora of specific advice on how to teach entrepreneurship that it would be both impossible and superfluous for me to try to enter into details of specific delivery techniques in this chapter. This is where the current proliferation of entrepreneurship education literature is at its best. As indicated in the introduction to this chapter, there is simply no shortage of specifically focused good advice on how to teach even the most arcane aspects of entrepreneurship.⁵ The detail abounds.

However, when it comes to generic principles for teaching entrepreneurship at university, I believe that there are six mandates. At university entrepreneurship ought to be taught: experientially; creatively; joyously; respectfully; adaptively and – dare one say it – entrepreneurially. Each of these mandates is worthy of a chapter in its own right. For the time being, as an entrepreneurship educator in the Whitehead tradition, I ask readers to use their imagination as to how these mandates might be implemented.

The curriculum: how to design what might be taught

In this section of the chapter I return to the concept of the 'plus-zone challenge', first raised under the heading 'Entrepreneurship and the university'. In a nutshell, the plus-zone challenge is the need to infuse a practical curriculum with Whitehead's philosophy concerning the proper role of university education.

What follows does not pretend to be anything but an outline sketch of *a general way to develop* many different entrepreneurship curricula, all of which might meet the plus-zone challenge. It is not a detailed prescription of *what a specific curriculum should contain*. What follows is a broad outline of a generic way to create *various* curricula – but all of them based on Whitehead's fundamental belief that the function of a university is to enable you to shed details in favor of principles.

Caveat: what I am about to sketch – my rough philosophical template for the creation of entrepreneurship curricula – has little relevance to any university that satisfies itself with a single-subject, adjunct-taught approach to delivery of entrepreneurship education. Unless there is commitment to an integrated program – as distinct from isolated courses – and at least some full-time entrepreneurship faculty, a university cannot claim to be a serious provider of an entrepreneurship curriculum.

Commentators, previously discussed, have argued that the mechanistic, business-school model of program provision is certainly not the way to go (Birch, quoted in Aronsson, 2004; McMullan and Long, 1987). Let us try to model exactly what it is that they do not like.⁶ A stylized, putative diagram of a rigid and compartmentalized 'standard MBA' approach is provided in Figure 5.1.

Here, the approach is hierarchical: like pyramid-building in more ways than one. Independent 'building blocks' (self-contained, functionally oriented boxes of knowledge) are piled on top of one another. 'Base units' in the early stages of an MBA program often include marketing, organizational behavior (OB), accounting, finance, and other important skill areas. (Of course, the labeled boxes in my diagram are indicative, not

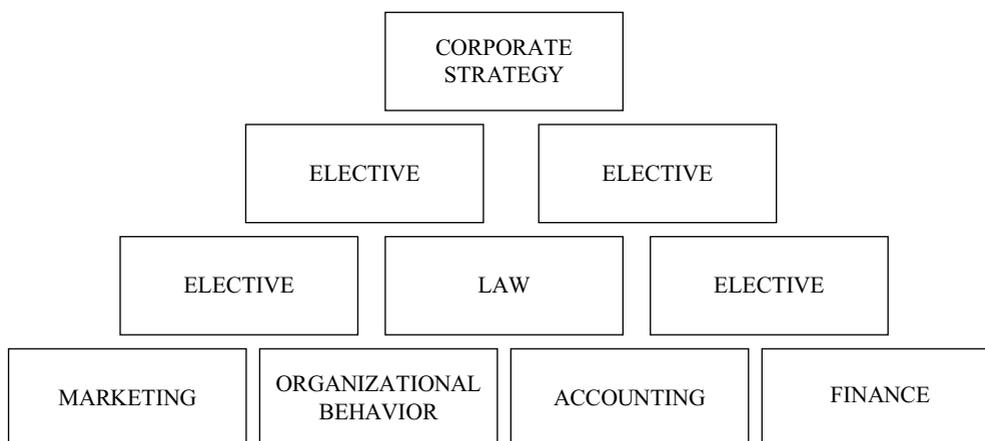
118 *Handbook of research in entrepreneurship education*

Figure 5.1 *The pyramid approach to business education*

prescriptive.) Later, a range of additional mandatory and elective subjects is built up, in the style of a pyramid. A subject called ‘corporate strategy’, or similar name usually crowns the course structure. This is often quite literally referred to as the ‘capstone’ course. Its objectives tend to include provision of a purview of all the other subjects. The taker of this course is alleged to obtain the ‘CEO’s point of view’ and ‘linking perspectives’ useful for seeing the relationships between all the other subjects hitherto taught in relative isolation. It is hoped that this capstone course will enable the taker to integrate all the other courses. Unfortunately, the hope is often forlorn. Corporate strategy is now a huge discipline in its own right, laden with constructs, models, *sui generis* literature and technical knowledge, which make this subject just as much a self-contained, functionally focused knowledge box as every other.

For traditional business education there may be some virtues in the pyramid approach. However, for entrepreneurship education, we can agree with McMullan and Long (1987) and Birch (in Aronsson, 2004) that the approach is sterile. The most obvious vice of the pyramid structure is that business knowledge is presented in fragments and remains in fragments. Boundaries are not crossed. Functionalism and separatism triumph over integration. This is just the opposite of what entrepreneurs – and followers of Whitehead’s philosophy of university education – need to do. Figure 5.2 presents an alternative curriculum design approach.

This model resembles a wheel built of four concentric circles. Working from the outside into the hub, a university entrepreneurship program should begin by recognizing the importance of constant relationship with the real arena of business: the outside world. Networks, allies, mentors and alumni are all essential to ensure that there is no possibility of ever letting the program develop any vestige of an ‘ivory-tower’ mentality. These may be called the fundamental ‘conduit’ components of a well-designed entrepreneurship education program. They provide constant contact between those who are learning it and those who are doing it: entrepreneurs, venture capitalists and all manner of relevant participants in daily action. Detailed attention to the conduit components of a program is essential, not peripheral, to its success. Conduit elements may be used in many ways, from

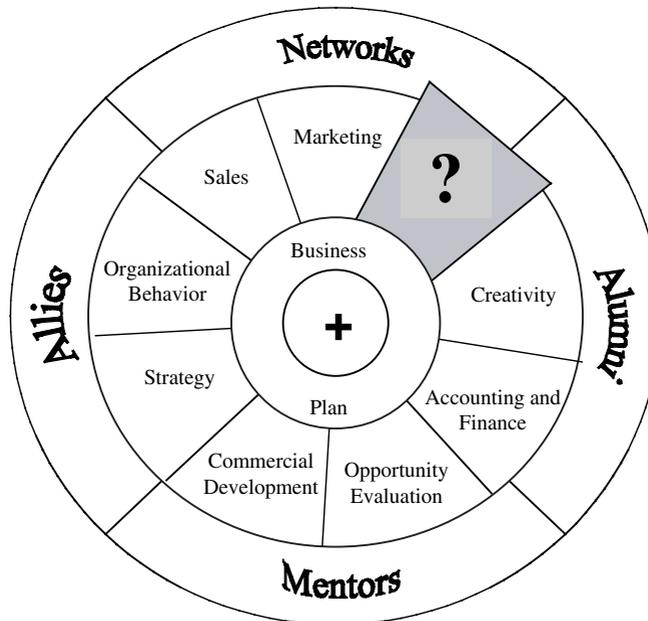


Figure 5.2 The wheel template for building an entrepreneurship curriculum

the obvious direct use of practitioners giving instruction in a classroom or mentoring students in various ways, to the subtle use of networks to gain credibility for the program and its graduates in many contexts.

The next circle of involvement in the curriculum template contains the courses themselves. Again, the selected subject titles, illustrated in Figure 5.2, are indicative not prescriptive or exhaustive. Many of the subjects that a university will choose to build into its entrepreneurship curriculum will contain similar material to their MBA counterparts in such functional areas as marketing, OB, finance, accounting and strategy. And I share David Birch's (Birch, in Aronsson, 2004) belief that an entrepreneurship curriculum simply must include a specific, unashamed emphasis on the sales function. The focus in an entrepreneurship program will be different from the focus in counterpart subjects in a program based on managing established businesses but many of the left-brain skills needing teaching will be the same. For instance, double entry book-keeping principles are exactly the same for both new and established ventures but the depth and quality of attention paid to building pro forma statements as part of a business plan may receive much greater attention in an entrepreneurship accounting curriculum and the ability to perform consolidated financial statements much less. Other courses, in areas such as opportunity evaluation, creativity management and commercialization of intellectual property, may lack any counterpart in the traditional MBA regime. The boundaries between all subjects should be flexible and crossable.⁷ The template features a subject, shaded and labeled with a question mark. This is to emphasize the point that different specific subjects may always be included or excluded by particular schools. I stress again that I am trying to picture *means*, a way of thinking about curriculum creation, not *ends*, any particular entrepreneurship curriculum.

120 *Handbook of research in entrepreneurship education*

The circular arrangement of the illustrative subjects in Figure 5.2 symbolizes the close interrelationship and interplay between courses more than the differences between them. This contrasts starkly with the self-contained knowledge boxes piled one on top of the other in the standard business school pyramid of Figure 5.1. This interrelatedness of courses is fully realized when they converge upon and feed into a core course, the business plan. It forms the third circle of the curriculum design template. In the commercial world, the preparation of an entrepreneurial business plan is central to a new venture's capacity to articulate its intended future and to raise funds from investors so that that future might be pursued. In a university-delivered entrepreneurship program, focus on the business plan as a genuinely unifying teaching opportunity is a feature that can clearly distinguish an appropriate approach to entrepreneurship education from the hierarchical, pyramidal structure. The business-planning subject can be a major pedagogical device as well as the repository of practical wisdom. It offers the opportunity to blend subjects and melt the boundaries between them; to show the essential interrelatedness of key skills, decisions and ways of thinking. This class can be used for potent demonstration of the power of multi-disciplinarity and integration as ways to build teamwork, demonstrate leadership and solve problems (see Honig, 2004).

So far, the emerging template caters for all of the practical pedagogical concerns expressed by McMullan and Long (1987). However, it might be argued that the approach has nothing particularly germane to a *university* about it – as indeed McMullan and Long suggested that entrepreneurship education may not (McMullan and Long, 1987, p. 262 and *passim*). My curriculum-creation model as it stands to this point could as well be employed and implemented by non-university, vocationally oriented training providers. Is there a place for the distinctive competence of the university (whatever that may be) to add unique value to an entrepreneurship program?

I believe that there is. It is represented by a plus sign, in Figure 5.2, as the central hub of the model. At the heart of my template is the 'plus zone' I discussed previously in this chapter when considering whether university was an appropriate venue for entrepreneurship. Simply put, the plus zone contains and radiates out to all other levels of the model the stuff needed to make any subject matter worthy of treatment at university. For any particular university it will be the way that that university seeks to embody the Alfred North Whitehead philosophy of university education.

In a sense, knowledge shrinks as wisdom grows: for details are swallowed up in principles. The details of knowledge which are important will be picked up ad hoc in each avocation of life, but the habit of the active utilisation of well-understood principles is the final possession of wisdom. (Whitehead, 1929 [1967], p. 37)

My computer graphic skills are simply not adequate to illustrate the entirety of my perception of the plus zone. Yes, the Whitehead philosophy of university education is at the core of the system. But it also radiates out and permeates every subject in the curriculum. Not only do we need some very special 'plus-zone' subjects at the core, we need a little bit of 'plus-zone' content and attitude in *every* subject. Can we do it? Can we or ought we inject an element of reflexive thinking in something as seemingly mundane as the teaching of double entry book-keeping to people who 'just want to get on with it'? Well, if we are a university we can: and we must. Whitehead wrote:

The antithesis between a technical and a liberal education is fallacious. There can be no adequate technical education which is not liberal, and no liberal education which is not technical; that is, no education which does not impart both technique and intellectual vision. In simpler language, education should turn out the pupil with something he knows well and something he can do well. This intimate union of practice and theory aids both. The intellect does not work best in a vacuum. (Whitehead, 1929 [1967], p. 48)

And, again,

The university imparts information, but it imparts it imaginatively. At least, this is the function which it should perform for society. A university which fails in this respect has no reason for existence. This atmosphere of excitement, arising from imaginative consideration, transforms knowledge. A fact is no longer a bare fact: it is invested with all its possibilities. It is no longer a burden on the memory: it is energising as the poet of our dreams, and as the architect of our purposes. (Whitehead, 1929 [1967], p. 93)

That is the plus-zone challenge when teaching highly technical material in an entrepreneurship (or any other) course at university.

Of course, some subjects (teaching about entrepreneurship rather than how to do it) can be introduced into the curriculum with a totally plus-zone mission. I tender a few examples for illustrative purposes.

At Swinburne University, in the entrepreneurship program I helped to develop, one of the subjects helping to build this 'plus zone' is called the Entrepreneurial Research Project. Here, students are required to find a topic in the field that transcends any particular application to any specific business and has some relevance to theoretical understanding of the discipline. They must read deeply in the literature of the field and conduct empirically based research of sufficient merit to be acceptable to a journal or conference using a double-blind refereeing process. I stress again that this course is not a panacea or something all university entrepreneurship curricula should necessarily emulate. As with many other courses mentioned in this chapter, it is indicative, not prescriptive. What matters here is the attempt to find subjects *about entrepreneurship* that are worthy of the 'plus zone' and relevant to students' personal and intellectual development as well as to their professional development and a host of other contexts: national, economic and cultural. What matters is the conscious attempt to create an exciting 'plus zone' which will enable different universities and different teachers to exert their special flavors and influences on a program of entrepreneurial studies and make it something truly special for the student. So, by way of illustration only, another possible 'plus-zone' subject might be social entrepreneurship, a course examining ways in which constructs and knowledge developed in the entrepreneurship discipline might be applied to non-profit ventures and social situations peculiarly relevant to the region which the university services. Another subject worthy of the plus zone might be entrepreneurship history: one or several courses examining various times, locations and events in the story of human development. For instance, I believe that today's entrepreneurship students would benefit prodigiously from studying the great works of Frederic Lane (see, for instance, Lane, 1973) on the commercial evolution of the Venetian republic.

Could or should we even have a subject called 'the philosophy of entrepreneurship'? I leave it to your imagination because an imaginative teacher will find ways to inject a plus zone into even the most seemingly mundane vocational areas of instruction. Really interesting cases,

122 *Handbook of research in entrepreneurship education*

examples, peripheral readings, guest lecturers, whatever can be introduced into almost any 'technical' subject to enliven it and get the students thinking imaginatively about the subject matter. The key to developing 'plus-zone' subjects or components in any entrepreneurship curriculum is to go beyond the boundaries usually associated with managing a new venture to the limitless space which has always been the true province of the best university education. It is the place where imagination and creativity flourish because the nurturing of genuine understanding has been deep.

Despite all the advances that have been made in the volume of university entrepreneurship courses and programs over the past 10 years, most still lack this quality of vocational transcendence which is the hallmark of university education. The only issue I would take with McMullan and Long's vision of so many years ago (McMullan and Long, 1987) is that in looking so intently at what a sterile, stereotyped '*business school*' mentality might detract from an entrepreneurial education program, they may have failed to fully appreciate what a vibrant, imaginative *university* mentality might add to it. When I look at the state of entrepreneurship education in universities, worldwide, today, I see a fast-growing level of activity and a slow-growing level of philosophy. This chapter has been an attempt to redress the balance in a small way.

Conclusion: focus on the teacher and 'reciprocal apprenticeship'

Hopefully I have been able to convince a few readers that the problem facing entrepreneurship education in the university context is not a matter of 'where?' (business school or elsewhere) or 'why?' (Whitehead is convincing on the university's unique educational role, and entrepreneurship as a phenomenon is well worthy of the attention of enquiring minds). The 'what?' issue (specific curriculum subject choices) and the 'when?' issue (undergraduate or postgraduate) are important, of course, but totally subsidiary to the crucial combination of 'who?' and 'how?'. In my view, the focal problem for successful development of entrepreneurship education at university depends far less on any specific subject matter than upon a fundamentally important and generic appreciation of the university's peculiar role in education.

At a practical level, the biggest failing I observe in many university entrepreneurship programs is a rush to an overly vocational and mechanistic curriculum design combined with too much emphasis on the techniques appropriate to developed organizations (the 'business school' or 'wrong building' problem) in the absence of adequate reflection about what each and every *university* curriculum must contain. Simply, any university curriculum worthy of the name must contain more wisdom than knowledge, more knowledge than information and more information than data. So, if a business school, or any other sub-section of the university currently embodies an unsuitable curriculum design model for teaching entrepreneurship, the problem is immutable only if the guardians of the wrong curriculum approach remain inflexible or are antipathetic to the university ideal. There is no reason that the wheel cannot replace the pyramid (see Figure 5.2 and 5.1) as a curriculum-creating approach within or without any given business school or any other university department that decides to provide entrepreneurship education. Given the right philosophy, there cannot be a wrong building – in the sense of 'faculty location' – in which to teach any subject matter at university. The right location for university curriculum thinking is the plus zone. It is the place where commitment to imaginative transcendence of material detail lives. As Socrates demonstrated, critical imagination resides in people,

not buildings or curricula or organization charts or even books. So, the conclusion of my speculations returns to the key *people*: teachers and their students and how they might perform together. 'The justification for a university is that it preserves the connection between knowledge and the zest for life, by uniting the young and the old in the imaginative consideration of learning'. (Whitehead, 1929 [1967], p. 93)

It is said that Bill Clinton won his first election for the White House because, before every speech he delivered to every audience, he repeated, to himself, the mantra: 'It's the economy, stupid.' I would think it no bad thing if every entrepreneurship educator at university, before walking into each and every classroom, repeated the mantra: 'It's the teacher, stupid.' The fundamental ingredient in great entrepreneurship education is, as in every discipline, a passionate teacher addressing students with open minds and together working on the mutual imaginative development of knowledge: a kind of reciprocal apprenticeship.

I cannot find a better conclusion to my musings on entrepreneurship education at university than to repeat a previous quotation of the general principles espoused by Whitehead. He writes:

In my own work at universities I have been much struck by the paralysis of thought induced in pupils by the aimless accumulation of precise knowledge, inert and unutilised. It should be the chief aim of a university professor to exhibit himself in his own true character – that is, as an ignorant man thinking, actively utilising his small share of knowledge. (Whitehead, 1929 [1967], p. 8)

How should the entrepreneurship teacher go about the task of 'actively utilising' his or her 'small share of knowledge'? My final analogical advice to a putative teacher of entrepreneurship at university would be to think less about the specifics of today's details. For instance, think a bit less about the fact that today's specific class features a case study on this, or a lecture on that, or a team presentation on the other thing. An exciting 'reciprocal apprenticeship' approach to the classroom would see the teacher acting as if he or she were an improviser, at a rehearsal session, in a jazz band that plays for love rather than money. This captures the necessary spirit of experiential learning based on adequate technical training. Everyone in the band needs to know more than the mere rudiments of music and have better than average mastery of their instrument. Prior to this rehearsal session, they will all have done a lot of practice, solo and in small combinations. Some players are better than others, but every instrument is different and everyone gets a chance to solo and everyone learns and improves by listening to everyone else. Very importantly, no one – especially the bandleader, the teacher – is afraid to play a bum note, or criticize it when it is played or to start the song again. This is very hard to achieve in a real-world business environment: a paying gig. Outside the university, it is hard to overcome the intimidatory risks of error when money, resources and reputations are at stake. Even the great Duke Ellington band used written orchestrations. In your class, your group rehearsal, your dialogue with apprentices, be the bandleader sometimes and drop back into the rhythm section often.⁸

So, teach entrepreneurship as you would improvise music. Use the lesson plan in the same way as an improviser might use the melody of a popular standard song; as a point of departure; a set of notes to guide the session, not to constrict it. Recognize and value the fact that this *is* a rehearsal for everyone: not a do-or-die audition for the whole band or anyone in it. Do it in full recognition of your own and your students' limitations, but get beyond those

124 *Handbook of research in entrepreneurship education*

limitations by, together, pushing the boundaries imaginatively and creatively. I could call this the 'jazz rehearsal approach', or the 'plus-zone' approach or the 'A.N. Whitehead' approach or the 'reciprocal apprenticeship approach'. You might call it 'teaching entrepreneurship entrepreneurially'. Whatever you call it, whatever specific material forms the basis of your repertoire, and wherever you house the class, this is the right philosophy.

To articulate some very broad directions that this philosophy might indicate for research into entrepreneurship education, I conclude with a focus on the notion of apprenticeship, a concept used by both the highly 'practical' David Birch and the highly 'theoretical' Alfred North Whitehead in the two quotations with which I began this chapter.

If you want to encourage entrepreneurship, it should be through some kind of apprenticeship. That would be a wonderful experience. (Birch, in Aronsson, 2004, p. 289)

The way in which a university should function in the preparation for an intellectual career, such as modern business or one of the older professions, is by promoting the imaginative consideration of the various general principles underlying that career. Its students thus pass into their apprenticeship with their imaginations already practiced in connecting details with general principles. (Whitehead, 1929 [1967], p. 96)

Following the advice of both Birch and Whitehead, I think an entrepreneurship education research agenda could be built around important questions pertaining to an enhanced, creative interpretation of the concept of 'apprenticeship' as a learning mode that conveys useful vocational knowledge at the same time as it transcends vocation by contributing to the total human development of each student who studies it. Important questions used to guide the search for particular research topics might include:

- Is *apprenticeship* a purely vocational concept or does it have transcendent aspects?
- Could *some kind of apprenticeship* be offered in a context other than an operating business – perhaps even at a university?
- Could different *kinds* of apprenticeship provide valuable diversity in an individual's entrepreneurial education?
- What are the strengths and weaknesses of apprenticeships vis-à-vis other methods of teaching any subject matter in general and entrepreneurship in particular?
- Could apprenticeship be approximated or simulated?
- Is the culture of the business school an immutable constant, or could business schools be induced to adapt and diversify their educational approaches to suit different subject matter and different student needs using different approaches than those that currently prevail?

Questions such as these are indicative, not prescriptive. The right philosophy for entrepreneurship at university is to combine good vocational skills transfer with the principle of vocational transcendence. Once the right philosophy is adopted, good questions and good research are bound to follow.

Notes

1. Hills and Morris (1998, p. 43) cite 'pioneering work addressing whether entrepreneurship can be taught' but when I read the articles they point me to I do not get a sense of systematic addressing of this issue by the cited authors. I agree with Hills and Morris's later statement: 'Much of this writing addresses specific teach-

- ing and learning objectives as well as course content and other educational delivery issues' (Hills and Morris, 1998, p. 43).
2. As indicated in the introduction, this last question is the sole focal area of the vast majority of entrepreneurship education articles currently being published. The predicate questions are often ignored.
 3. For another approach see Scott et al. (1998), who utilize three categories: education *through* enterprise, education *about* enterprise and education *for* enterprise.
 4. Here, I use the term entrepreneur in the Schumpeterian sense and quote William Baumol (2004, p. 33) for succinctly summarizing this perspective as follows: 'Here, I will emphasize Joseph Schumpeter's conception of the entrepreneur as a partner of the inventor – as a businessperson who recognizes the value of an invention, determines how to adapt it to the preferences of prospective users, and brings the invention to market and promotes its utilization.'
 5. For instance, the recent special issue of *Academy of Management Learning and Education* (Greene et al., 2004) has articles by Benson Honig on 'contingency-based business planning' and Dean Shepherd on educating students about emotion and learning from failure.
 6. Earlier, less developed versions of the diagrams and arguments contained in this section of the chapter can be found in Hindle (2001).
 7. Again, I wish I had better computer graphic skills. I would show the subjects 'blurring into' one another rather than being distinguished by straight line boundaries.
 8. It occurred to me as I composed my final jazz group analogy that it might be a bit too florid for scholarly discourse. Then I remembered that, in his great book, Whitehead included two chapters: 'The rhythm of education' and 'The rhythmic claims of freedom and discipline'.

References

- Aronsson, Magnus (2004), 'Education matters – but does entrepreneurship education? An interview with David Birch', *Academy of Management Learning and Education*, guest co-editors: Patricia G. Greene, Jerome A. Katz and Bengt Johannisson, *Special Issue: Entrepreneurship Education*, **3** (3), 289–92.
- Baumol, William J. (2004), 'Education for innovation: entrepreneurial breakthroughs vs. corporate incremental improvements', working chapter, early report on a research project at New York University.
- Bloom, Allan (1987), *The Closing of the American Mind: How Higher Education Has Failed Democracy and Impoverished the Souls of Today's Students*, London: Penguin.
- Davidsson, Per (2004), *Researching Entrepreneurship*, Boston, MA: Springer.
- Fiet, J.O. (2000), 'The pedagogical side of entrepreneurship theory', *Journal of Business Venturing*, **16**, 101–17.
- Greene, Patricia G., Katz, Jerome A. and Johannisson, Bengt (2004), *Academy of Management Learning and Education, Special Issue: Entrepreneurship Education*, **3** (3).
- Hills, Gerald E. and Morris Michael H. (1998), 'Entrepreneurship education: a conceptual model and review', in Michael, Scott, Peter Rosa and Heinz Klandt (eds), *Educating Entrepreneurs for Wealth Creation*, Aldershot: Ashgate, pp. 1–14.
- Hindle, K.G. (2001), 'Entrepreneurship education at university: the plus-zone challenge', *Small Enterprise Research*, **9** (2), 311–31.
- Hindle, K. (2004), 'A practical strategy for discovering, evaluating and exploiting entrepreneurial opportunity: research-based action guidelines', *Journal of Small Business and Entrepreneurship*, **17** (4). Simultaneously published in *Small Enterprise Research*, **12** (1).
- Hindle, K. and Rushworth, S. (2004), 'Westpac GEM Australia: a study of Australian entrepreneurship in 2003', in K. Hindle, T. Mackaskill and S. Yamin (eds), *Australian Graduate School of Entrepreneurship Research Report Series*, vol. 1, Melbourne: Swinburne University of Technology.
- Hindle, K., Anderson, R.B. and Gibson, B. (2004), 'From what we know to how we use it: five principles for turning entrepreneurship research into practitioner action guidelines', *Journal of Small Business and Entrepreneurship*, **17** (4). Simultaneously published in *Small Enterprise Research*, **12** (1).
- Honig, Benson (2004), 'Entrepreneurship education: toward a model of contingency-based business planning', *Academy of Management Learning and Education*, guest co-editors: Patricia G. Greene, Jerome A. Katz and Bengt Johannisson, *Special Issue: Entrepreneurship Education*, **3** (3), 258–73.
- Katz, J.A. (2003), 'The chronology and intellectual trajectory of American entrepreneurship education 1876–1999', *Journal of Business Venturing*, **18**, 283–300.
- Klandt, Heinz (2004), 'Entrepreneurship education and research in German-speaking Europe', *Academy of Management Learning and Education*, guest co-editors: Patricia G. Greene, Jerome A. Katz and Bengt Johannisson, *Special Issue: Entrepreneurship Education*, **3** (3), 293–301.
- Koch, Lambert T. (2003), 'Theory and practice of German education – a German view', *International Journal of Entrepreneurship Education*, **1** (4), 633–60.
- Lane, Frederic C. (1973), *Venice a Maritime Republic*, Baltimore, MD and London: Johns Hopkins University Press.

126 *Handbook of research in entrepreneurship education*

- Legge, J.M. and Hindle, K.G. (2004), *Entrepreneurship: Context, Vision and Planning*, London: Palgrave Macmillan.
- McMullan, Ed (2003), 'The problems and pitfalls of creating an entrepreneurship program', *Proceedings of the Fostering Entrepreneurship: Building Better Entrepreneurs Conference*, Calgary: University of Saskatchewan.
- McMullan, W. Ed and Long, Wayne A. (1987), 'Entrepreneurship education in the nineties', *Journal of Business Venturing*, **2**, 261–75.
- ONCIIA (2004), 'Education that works: invention, innovation, and entrepreneurship in practice', National Collegiate Inventors & Innovators Alliance 8th Annual Meeting San Jose, CA 18–20 March 2004 proceedings www.nciia.org/conf_04/proceedings.
- Plaschka, G.R. and Welsch, H.P. (1990), 'Emerging structures in entrepreneurship education: curricular designs and strategies', *Entrepreneurship Theory and Practice*, **14** (3), 55–71.
- Reynolds, P.D., Bygrave, W.D., Autio, E., et al. (2004), *Global Entrepreneurship Monitor 2003 Executive Report*, Babson College, London Business School, and the Kauffman Foundation.
- Scott, Michael, Rosa, Peter and Klandt, Heinz (1998), 'Educating entrepreneurs for wealth creation', in Michael Scott, Peter Rosa and Heinz Klandt (eds), *Educating Entrepreneurs for Wealth Creation*, Aldershot: Ashgate, pp. 1–14.
- Shane, Scott and Venkataraman, S. (2000), 'The promise of entrepreneurship as a field of research', *Academy of Management Review*, **25** (1), 217–26.
- Small Business Institute Directors (2004), SBIDA website, www.smallbusinessinstitute.org.
- Syracuse University (2004), *The Experiential Classroom*, Syracuse, NY: Martin J. Whitman School of Management, whitman.syr.edu/eee/falcone/classroom/LLEEP.asp.
- Vesper, Karl H. and Gartner, William B. (2001), *University Entrepreneurship Programs*, Los Angeles, CA: Lloyd Greif Center for Entrepreneurial Studies, Marshall School of Business, www.marshall.usc.edu/entrepreneur/.
- Whitehead, Alfred North (1929), *The Aims of Education and Other Essays*, New York: The Free Press. Reprinted 1967.
- Whitehead, Alfred North (1933), 'The study of the past – its uses and its dangers', *Harvard Business Review*, **11** (4), 436–44.
- Whitehead, Alfred North (1936), 'Harvard: the future', *Atlantic Monthly*, **158** (3), 260–70.
- Whitehead, Alfred North and Russell, Bertrand (1910, 1912, 1913), *Principia Mathematica*, 3 vols, Cambridge: Cambridge University Press.