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Marco Van Gelderen

Research Based Yet Action  
Oriented: **Developing Individual  
Level Enterprising Competencies**

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## INTRODUCTION

This paper outlines an approach to teaching enterprising competencies in the university setting of Massey University, Auckland, New Zealand. It is characterised by two features. First, it has an experiential component in the form of developmental exercises; forms of practice which are devised by the students themselves. Second, the exercises are research-based: students study academic articles and book chapters that give clues about how to practice the various competencies. The method is inspired by Gibb's (1993, 1998, 2002a, 2002b) ideas about simulating the essences of enterprise in the learning environment. The approach used at Massey is outlined at the end of the paper. The paper begins with offering the rationales for the course. First, it provides arguments as to why enterprising competencies are becoming increasingly important for our students. Second, it is argued why, out of three approaches to competency, the behavioural approach is deemed to be the most suitable for the approach employed at Massey. Third, in the debate about generic versus situation specific competencies, it argues for the relevance of generic competencies. The paper then describes entrepreneurship / small business (E/SB) research on competencies, and discusses why entrepreneurship research is often of little help for 'how to' approaches. Finally, the Massey approach is described in detail.

## THE WIDER RELEVANCE OF ENTERPRISING COMPETENCIES

Individual level enterprising competencies are increasingly important as a result of various socio-economic trends. As outlined by Gibb (2002a, 2002b), there have been profound changes, all which favour increased self-reliance in the ways in which individuals relate to the State, organizations, and to other individuals. Among the examples Gibb offers in using this three-dimensional frame is that of the State providing less certainty and welfare support, and relying increasingly on the market to attain social ends. Fewer organizations provide life-long employment and large organizations mimic small ones in their organisational structures. On the individual level, we see more of an individual growth and happiness ethic, and an increase in relationship break-ups and divorces.

Career researchers study these trends and write about *employability*, the *Protean Career*, and the *Boundaryless Career*. Employability is the capability to move self-sufficiently within the labour market gaining initial employment, maintaining employment, and obtaining new employment if required (Fugate, Kinicki, and Ashfort, 2004). The Protean Career describes a

career orientation in which the person, not the organization, is in charge. Success criteria are subjective (psychological success) and the person's core values drive career decisions (Hall, 2004). The Boundaryless Career, a related concept (DeFillippi and Arthur, 1994), refers to a career in which people have worked for many employers, alternated with periods of entrepreneurship. The competencies that sustain and support employability, the Protean Career and the Boundaryless Career are therefore foremost individual level, rather than firm level.

Thus, individual level enterprising competencies are important also in contexts outside of narrowly defined notions of entrepreneurship, such as starting a business. Entrepreneurship and employability are closely linked with both requiring skills such as flexibility, creativity, and problem solving (Onstenk, 2003). Whatever the work context, we more and more live in a society where we have to cope with and enjoy an enterprising way of life (Gibb, 2002a, 2002b). This way of life is characterized by uncertainty, change, and complexity on the one hand, but by autonomy, freedom, individual responsibility, and being able to reap the fruits of one's own labour on the other hand (Gibb, 2002a, 2002b). Hence, there have been many calls for *transferable* enterprising skills (Fallows and Stevens, 2000; Galloway, Anderson, Brown and Wilson, 2005).

Individual level competencies are defined in the Massey approach as *abilities that manifest in behaviour*. Individual level enterprising competencies are competencies that are related to starting, or running a small or new business. However, enterprising competencies can also be manifested outside of these settings (Van Gelderen, 2000, Onstenk 2003). Examples of these competencies are perseverance, initiative, persuasiveness, networking, risk taking, decision making under conditions of uncertainty, planning and goal setting under conditions of uncertainty, opportunity recognition, managing time and stress, creative problem solving, negotiating, communication skills such as listening, managing relationships, and team building. These competencies underlie functional areas in small business management and entrepreneurship.

Beyond individual competencies, several authors use similar terminology with regard to firm-level functional areas (e.g., Capaldo, Iandoli, and Ponsiglione, 2004; Chandler and Jansen, 1992; Chandler and Hanks, 1994; Onstenk, 2003). Some are labelled as *managerial competencies*, such as planning, financial management, allocating resources, and control. Others are labelled as *entrepreneurial competencies*, such as assembling and acquiring resources, and

managing for growth. Here the competency concerns the firm, although the unit of analysis is the individual. The approach in this paper limits itself to individual competencies that can also manifest outside of the context of a firm, hence the use of the term *enterprising*. Also disregarded were firm level competencies such as the core competencies of the firm (Prahalad and Hamel, 1990).

### **THREE DIFFERENT COMPETENCY APPROACHES**

McClelland's (1973) article, 'Testing for competence rather than for intelligence', is often seen as a starting point for the competency approach, although Mulder, Weigel and Collins (2007) trace the use of the concept back to Plato and even the *Code of Hammurabi* (1792-1750 BC). In recent decades, the construct has been applied in different ways. In a clear discussion, Hoffmann (1999) establishes that there are three distinct approaches to competencies: *input*, *behaviour*, and *output*. The input approach is favoured in the United States of America (USA) (Greza, 2005). Here, Boyatzis (1982) sees competency as an underlying characteristic of a person, which may be a motive, trait, skill, social role, self-image, or knowledge. Spencer and Spencer (1993) define competency as an underlying characteristic of an individual that is causally related to successful performance at work. Successful people are assessed as to what knowledge, traits, skills and other attributes allow them to be successful. Other people can then be subsequently trained in order to emulate or imitate their successful counterparts. Sandberg (2001) notes that this approach essentially goes back to Taylor's ideas of scientific management.

The output approach is favoured in the United Kingdom (UK) (Greza 2005). This approach sees competencies as a standard or as outcomes. If someone achieves beyond a certain standard, that person is said to be 'competent'. Output can also refer to very high levels of success. Similarly, Bird (1995) distinguishes between competency as a minimum standard – baseline or threshold – and competency as contributing to excellence. Greza (2005) refers to the input and output approaches respectively as competency as an independent (US), or dependent (UK) variable.

The third approach looks at the behaviour that is displayed. Behaviour is informed by inputs and leads to outputs. This is the approach that is favoured in the enterprising competencies course offered at Massey. There are a number of reasons to opt for the behavioural frame. They are best presented in contrast to the other approaches. Firstly, a comparison with the input

approach. The behavioural approach corresponds well with the experiential level. This is in opposition to the input approach, which includes knowledge, traits, motives, and attitudes, and can therefore be taught without a behavioural component. However, someone can have appropriate personality traits with regard to entrepreneurship, but these need to be manifest in behaviour (Gartner, 1989). In addition, both management and entrepreneurship are characterized by ambiguity and complexity – there is no simple causal link between input and success (Greza, 2005). Finally, the behavioural approach assumes that behaviour is malleable. This is in contrast to personality traits which figure in the input approach. Indeed, Lau, Chan and Ho (2004) found that competencies of Hong Kong entrepreneurs changed when they were exposed to the emerging mainland Chinese market. So even though behaviour is informed by inputs, such as knowledge and personality variables, it is more advantageous to look at behaviour.

Secondly, a comparison with the output approach. This approach can either see competency as a standard (if you pass that standard you are regarded as being competent), or as success (the more successful you are, the more competent you are deemed to be). The behavioural approach, however, looks at performance in terms of what people *do*, but it does not see the *results* of performing as competence. One may wonder what the use is of training behaviour if success is not the measure. But in my opinion, that is exactly the advantage of practicing behaviour instead of success in an educational setting. Students learn to manifest enterprising competencies, regardless of whether they are successful or not. Because they usually do not yet have a business, the primary purpose of the exercise is to gain confidence and to raise self-efficacy. For example, students perform networking exercises and learn how to build relationships. Whether that translates to tangible results is less relevant at this stage. In addition, by assessing behaviour rather than success one allows for mistake-making. A student can make a great networking effort but in the end it may amount to nothing. Within entrepreneurship, mistake-making is vital and essential, and what counts is exposure to behaviour and learning from mistakes (Gibb, 1993).

As stated above, one advantage of the behavioural approach to competency is that it resonates well with experiential forms of education. The rationale is that entrepreneurship should not just be talked or read about – it should also be *practiced*. Entrepreneurship is something that is learned by doing and not merely by studying (Cope & Watts, 2000; Fiet, 2001b, Man, 2006). Moreover, many people have a preference for experiential learning (Kolb, 1984), and it can be

argued that adults learn best when they direct their own learning and relate concepts to their own personal experience (Bird, 2002).

Currently, entrepreneurship educators are devising experiential and action approaches. This is indicated by presentations at various IntEnt conferences (see for example, Carland & Carland, 1997; McAdam & Leitch, 2005), and by various publications in the training and development literature. In Bird's (2002) competency course, students identify their own strengths and weaknesses, and outline developmental exercises within the framework of a learning contract. In Tasmania, Jones and English (2004) also use methods of student centred learning by 'reversing the process and responsibility of learning'. Jones-Evans, Williams, and Deacons (2000) employ an action learning approach by developing enterprising competencies through consultancy assignments. Examples of other innovative experiential methods in entrepreneurship education are reported by Collins, Smith, and Hannon (2006), Cooper, Bottomley and Hildebrand (2004), Heinonen and Poikkijoki (2006), Klapper (2005), Laukkanen (2000), Mueller, Wyatt, Klandt, and Tan (2006), and Tan and Ng (2006).

#### **THE GENERIC VS. SITUATION-SPECIFIC COMPETENCIES DEBATE.**

A hotly contested issue with regard to teaching competencies is whether there is any value in students acquiring generic competencies (Grezda, 2005). One argument is that if students are all taught the same generic competencies, it does not result in a competitive advantage for the firm (Grezda, 2005). From the perspective of achieving a competitive advantage, it only makes sense to train competencies that are specific to the firm. On the other hand, the notion of the Boundaryless Career mentioned above, calls for generic competencies that can be applied in various contexts (DeFillippi & Arthur, 1994). People lend their competencies to different firms at varying times, sometimes being an entrepreneur themselves. Competencies that are strongly tied to a particular organisation in fact put them at a disadvantage (DeFillippi & Arthur, 1994).

More fundamentally, McKenna (2004) argues that competencies cannot be abstracted from either the person or the context. Ultimately it is the individual's personality as well as the situation that determine how the manager behaves. McKenna (2002) and Ruth (2006) posit that any notion of high performance is constructed within the particular situation that a person operates. Thus, there are no general competencies, only context-specific ones. This is unfortunate for management training for non-executives, where the work or entrepreneurial situation is, in

most cases, not yet present. The student can only be supplied with generic competencies, which need to be applied in specific contexts later.

Gibb's (1993, 1998, 2002a, 2002b) ideas about simulating the essences of enterprise in the learning environment may provide a way out of this debate. When students can take ownership of their learning, study on a 'need to know' basis, and participate in setting their learning goals and tasks, then generic competencies can be practised and developed – in circumstances and conditions that are different for each individual.

### **ENTREPRENEURSHIP RESEARCH ON COMPETENCIES**

Apart from applications in entrepreneurship education, there are two bodies of research in the field of E/SB research that involve the study of competencies. One stream has as a research question: 'Which competencies are important?' In addressing this issue, one approach is to study the literature in order to rate the importance of various entrepreneurial competencies and to arrive at a rank ordering (Bird, 1995; Capaldo, Iandoli, & Ponsiglione, 2004; Kirby, 2004; Man, Lau & Chan, 2002; Man & Lau, 2005). Another method is to ask entrepreneurs and/or experts (Capaldo, Izquierdo, DeSchoolmeester, and Salazar, 2005; McLarty, 2005) to rate the importance of various competencies. Little work has been done in this area in comparison with the general field of management, where, based on meta-analyses, already a *great eight* list of work competencies has been established (Bartram, 2005).

The second stream of research relates competencies to success. It measures competencies on the one hand and firm performance on the other. Thus, this literature relates to the first stream: by showing which competencies relate to success it points to the importance of various competencies. This has been explored by Chandler and Hanks (1994) who relate managerial competency to business volume and entrepreneurial competency to business growth. In an earlier work, Chandler and Jansen (1992) find that entrepreneurial, managerial, and technical competence are all positively related to performance. Baum and Locke (2004) observe that new resource skill, passion and tenacity all have an indirect effect on venture growth, mediated by goals, self-efficacy and communicated vision.

Both streams answer important research questions. However, for my training of enterprising competencies I was primarily interested in articles that would be helpful in

establishing *how to* manifest a competency in behaviour. Here I often had to borrow from other fields of social science, as will be discussed in the next section.

### **THE SEARCH FOR ‘HOW TO’ ARTICLES AND BOOK CHAPTERS**

The search is for academic ‘how to’ articles and book chapters – how to network, persuade, persevere, and take calculated risks, and the like. Preferably these articles would not just report best practices of entrepreneurs but also be based on theory and contribute to theory (Fiet, 2001a). Interestingly, they are surprisingly hard to find. I can think of various reasons. For some competencies there is simply little research in the field of E/SB. For example, perseverance is obviously an important enterprising competency, but there is very little research published on perseverance in the E/SB journals.

In contrast, much has been published about various other competencies. However, reading this research with a strict ‘how to’ angle in mind, there is little useful to be found. First, research usually gives definitions, but in themselves definitions do not tell us *how to do* something. Second, much research provides measures, but at best, the items of these measures tell us something about behaviours that can be considered as *evidence* of the competency. They do not tell us how to *perform* these behaviours. Third, there is correlational research. This tells us something about who displays the competency and the conditions under which we can expect the competency to take place, but often it does not say something about how to enact the competency. Fourth, there are models in which researchers explore a particular competency, and show all the relevant factors. Sometimes this does provide clues for how to put the competency into practice, especially if the models shows proximal antecedents that strongly influence the manifestation of the competency. In most cases, however, the antecedents are distal, or they cannot be applied to the practice of the competency.

An additional reason that the E/SB literature provides little insight into how to display enterprising competencies, is that perhaps ‘how to’ articles are difficult to publish. Assumed to be lacking in theoretical insights, they may be perceived to have less academic merit (Bécharde and Gregoire, 2005). A further reason may be that researchers who do have this knowledge prefer to commercially exploit it, rather than publishing their ideas in the public domain. Finally, it has been noted that much E/SB research is not designed to generate implications for education

and student development, nor is a great effort made to derive these implications when presenting and discussing the findings (Bécharde and Gregoire, 2005).

Fortunately, for nearly every competency one can go to other fields of research, and find the relevant information there, published in respected public domain academic journals. Take, for example, the competency of risk taking. One part of the literature on risk taking in the field of E/SB is about how risk propensity and/or risk perception relate to decision making. Another part is about risk propensity or risk perception vis a vis whether people become entrepreneurs or how successful entrepreneurs are. This research often points at biases and heuristics, which warns us about pitfalls to avoid.

One element of risk taking, even if the risks are calculated and managed, is courage. Even if the individual does not have a high risk propensity, and perceives moderate or manageable risk with regard to a business venture, courage is still required in order to proceed. The E/SB literature is silent about courage, but there is plenty of research on bomb removal experts, paratroopers, combatants, astronauts, and fire-fighters, and how they build up courage (Rachman, 2004). This research gives much insight in how to become courageous, and can easily be translated into experiential exercises.

Similarly, the E/SB literature discusses structures, measures, and governance of networks (for an overview see Huang & Antoncic, 2001), but gives little information on networking as an ability. The practice of networking, however, has been studied by social scientists (see for example Baker, 2000). For nearly every competency, with the exception of opportunity recognition for which various SB / E articles outline methods (e.g., DeTienne and Chandler, 2004; Fiet, 2002, Van Gelderen, 2004), I went to other fields of social science, and was able to find literature with theory and / or research based 'how to' prescriptions.

### **RESEARCH BASED BUT ACTION ORIENTED: THE APPROACH USED AT MASSEY**

In order to address these concerns I designed a course in which individual level enterprising competencies were practiced as well as studied. In 2005 it was tested and evaluated as a pilot program at the postgraduate level, (with only six students), and in 2006 it was run again (with 16 students). For the course the focus was strictly on competencies as behaviour. They were defined as *abilities that manifest in behaviours*. The competencies that were studied and then practised were: planning and goal setting under conditions of uncertainty, opportunity recognition,

initiative, persuasion, networking, team building, perseverance, risk taking, and decision making under conditions of uncertainty.

The characteristics of the experiential learning component were based on Gibb's (1993, 1996, 2002a, 2002b) ideas about simulating the essences of small business in the classroom: uncertainty, freedom, control, responsibility, ownership, mistake making, flexibility, informality, dependency on environment, working on know-who basis, and pressure to see things through.

For every class there were reading assignments with open questions about the material to be read. The assessment was made effort-based: students were given full marks if they had made a sincere effort. In this way, the students had an incentive to come to class prepared. In addition, the discussions in class of the articles were based on the answers given by the students.

Based on research and theory, the students devised plans to practice each competency, and then put them into action. These plans were to a large extent formulated by the students themselves. So, for example, in the case of persuasion, the students were asked to apply a number of influence techniques explored within the readings. For the risk-taking assignment, students were asked to do something of which they were afraid. When it came to networking they were asked to contact two people, who did not know each other, with regard to an idea generated earlier in the opportunity recognition assignment. In practice assignments the setting, timing and content of each exercise was determined by the students. By this means the elements of freedom, control, responsibility, flexibility, and pressure to see things through were incorporated into each exercise.

The students then reported on their actions. Again, grading of practice assignments was done exertion-based. Assessment was made of whether the student had made a sincere and significant effort, rather than on the basis of the actual results of the practice. This assessment regime was chosen because of the dependency on the environment as to how an exercise transpired (for example, in the case of networking, attempts to establish links were given to be of most importance, and whether the contact responded positively or not being of secondary). In addition, it allowed for mistake making. It also created uncertainty for the students as their effort was graded, rather than the result: they now had to use their own judgment rather than the teacher's (Zander and Zander, 2000).

In reporting on their actions students were not just asked to describe what they had done. They also reflected on the theory and research that had informed their actions. The actual use and

application of theory and research was discussed as well as possible shortcomings of the academic literature.

In addition there were two other forms of assessment. First, there was an exam at the end of the course testing the knowledge that the students had gained from the articles. For this course knowledge acquisition is just as important as knowledge application, and great effort is made to supply the students with readings that help them in practicing the competencies. The exam assesses the extent to which the students have acquired and understood the literature.

Second, the students explored a biography or autobiography of an entrepreneur. In a report, the students focused on the competencies of that entrepreneur. They were asked to describe examples of how competencies are expressed, and to apply the literature to the practices described in the text. In addition, if possible, they described the development of the entrepreneur's competencies throughout his or her lifetime and career, and apply the literature to the entrepreneur's competency development. By means of this assignment students could apply the competency theory and research to practice, and also learn from the entrepreneurs' successes and mistakes vicariously (Rae and Carswell, 2000).

Evaluations of the course show that the students enjoyed the course to a very high degree and felt stimulated and encouraged at the same time (all averages to evaluation questions were above four on a five point scale). Yet, various issues require attention and need further development. First, although reactions to the course were positive, it is also important to assess in the longer term whether learning has actually taken place, whether the students feel more confidence with regard to enterprising competencies, and whether any behaviour modification has occurred. Second, studying and practicing a different competency each week makes it very difficult to be comprehensive. The ideal time period required to study and practice a competency has yet to be determined.

Third, the selection of competencies can be debated. The current selection method is loosely based on Gibb (1993) and the students have no input in the selection of these competencies. Fourth, work needs to be done in integrating this approach with the development of competencies at firm-level, whether the focus is managerial or entrepreneurial or both. This would be important if the course is to be offered to executives. Fifth, the course in its current state is rich in the use of different modes of learning (reading book chapters and articles, designing and executing developmental exercises, reading and analysing biographies of

entrepreneurs). Still, more can be done to accommodate individual differences in learning styles of students (Van Gelderen, van der Sluis, & Jansen, 2005). For that reason, it would be interesting to include visual instructional material such as film (Van Gelderen & Verduyn, 2003) in addition to the biographies.

## CONCLUSION

McAdam and Leitch (2005) state that there is a twofold challenge of academic entrepreneurship education: first, to find an experiential approach, and second, to apply this approach in a university setting. This paper has described one such approach and its rationale. The main benefits of this approach is that it is research-based and yet action-oriented. With an enterprising mode of delivery, learning takes places in the unique context of each individual. This type of course is becoming more common at universities, with the practice of enterprising competencies being a welcome complement to other more traditional entrepreneurship education offerings.

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