

**AWAKENING THE ENTREPRENEUR: AN EXAMINATION OF ENTREPRENEURIAL ORIENTATION  
AMONG MBA STUDENTS**

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## ABSTRACT

This paper examines the findings from a study of 112 respondents consisting of 56 students who were engaged in an MBA course in entrepreneurship, and 56 “entrepreneurs” who were selected by the students as potential role models. The study used a “General Entrepreneurial Tendency” (GET) test originally developed by Caird (1991a; 1991b; 1992; 1993) to measure entrepreneurial orientation. The GET test measures five key elements comprising: i) achievement drive; ii) creativity; iii) autonomy; iv) risk taking propensity; and v) internal locus of control via a 54 item scale.

Students completed the GET test and evaluated their own results and then selected and interviewed an entrepreneur to who they administered the GET test. Timmons (1999) framework for interviewing an entrepreneur was used to guide this process. They then undertook an evaluation of their results and triangulated on the findings from their interlocutor and the literature. It was their objective to address the question “am I an entrepreneur” and to use the GET test data, interview and literature analysis to critically assess their own entrepreneurial orientation.

There were significant differences found between the MBA students and the entrepreneurs in terms of achievement drive, creativity and risk taking. The students were generally found to score lower on these areas than the entrepreneurs. However, the MBA students scored well on many factors even though they trailed behind the entrepreneur group. Relatively low scores were found among the MBA group in the area of autonomy with a wide standard deviation for risk taking, and drive and determination.

In analysing these findings the students engaged in a considerable level of introspection and commented on the factors influencing their results that were inherent in their family or work background. A pattern emerging from the 56 cases was the impact that such environmental influences can have upon entrepreneurial orientation. Many students used the exercise to identify influences either from family or their chosen careers that had served to adversely effect their entrepreneurial orientation. A pleasing outcome for many students was to find that their GET test scores were not much different to those of the entrepreneurs they had interviewed. These people were typically successful business owners and were viewed as role models by the students.

The study resulted in many students expressing a desire to undertake an entrepreneurial venture in the future, and many found that the interview with the entrepreneur, combined with the education program they were undertaking, had been an impetus and motivator. For example the following comment was from a nurse who used the course to plan a business venture with her husband and decide to engage actively in a major change of career:

*“I believe that my personal background and especially current context impacts highly on my tendencies towards entrepreneurialism. While I did have a positive role model in my father in terms of new venture creation, my chosen profession is one that, in direct patient care, requires conformation to rule with risk taking (even moderate) and creativity not valued attributes.”*

The study concludes that entrepreneurship cannot be taught directly but that students can be brought to an understanding of their own entrepreneurial capacity through the application of diagnostic assessments (e.g. GET Test) and the examples of role models (e.g. the entrepreneur interlocutors). It suggests that all people have entrepreneurial traits and that environmental forces are likely to impede or enhance these. Finally, it raises questions not only for future research, but in how we structure entrepreneurship courses for students, placing more emphasis on self-discovery and analysis rather than technical skills building (e.g. business planning and financial analysis).

## **ENTREPRENEURIAL EDUCATION**

The importance of entrepreneurship within contemporary society and economies has been increasingly recognised at a national level (NOCE, 2000; European Commission, 2003). This has been translated within the university sector to an increasing number of courses focused on entrepreneurship education that began to expand from the 1980s (Hisrich, 1988). For example, in the United States the number of entrepreneurship courses provided via colleges and universities grew from 163 during the early 1980s to over 400 in 1993 and around 1,000 plus by 2001 (Binks & Starkey, 2006). Within Australia a study undertaken in the late 1990s found that 74 percent of universities offered courses in entrepreneurship and small business management (Breen & Bergin, 1999). In Europe and the United Kingdom there are over 400 colleges and universities offering entrepreneurship programs (Binks & Starkey, 2006). There is now an emerging focus on dedicated doctoral level education programs in entrepreneurship (Brush, et. al. 2003).

There is some debate as to whether entrepreneurship can be taught or at least how it ought to be taught with suggestions that it should be applied to real business activity rather than via theory, and it is multi-disciplinary in nature (Gibb, 1987; Kourilsky, 1995). Within most universities the teaching of entrepreneurship is a subset of the wider academic discipline of Management. A strong focus within entrepreneurship education is upon the process of new venture creation (Timmons, 1999). There is a focus on the student learning to apply a set of tools or frameworks to assist in screening the business opportunity and then developing a business plan or case that can be applied. At the university level there is also a strong focus given to the study of the entrepreneur as a theoretical concept, focusing on the psychological factors likely to trigger entrepreneurship as well as the environmental conditions that can enhance or impede its progress (Jack & Anderson, 1999).

At the MBA level the emphasis is frequently on application of theory to practice and attention is given to the analysis of case studies of successful and unsuccessful entrepreneurs in order to teach students how to think and apply tools and concepts. There are a wide range of courses taught at both the undergraduate and postgraduate level, with some focusing on fairly applied, small business oriented programs involving mentoring and industry outreach activities (Roffe, 1999; Jack & Anderson, 1999). Others at the doctoral level place an emphasis on creation processes, models and both the economic and psychological foundations upon which the process of entrepreneurship is understood (Brush, et. al., 2003).

A study undertaken by Benson (1992) of entrepreneurship programs offered by American universities and colleges in the late 1980s found a diversity of curriculum and pedagogical approaches. He recommended that MBA programs focusing on entrepreneurship might have courses offered in at least five areas: i) Entrepreneurship and Small Business Management: An Introduction; ii) Venture Capital and Capital Formation; iii) Strategies for Entrepreneurship; iv) Corporate Entrepreneurship (Intrapreneuring); and v) Special Topics or Independent Study in Entrepreneurship (Benson, 1992).

This paper examines the findings of a study of MBA students undertaking a course in entrepreneurship and innovation at the University of Western Australia (UWA). The UWA MBA program offers a specialisation in entrepreneurship via a suite of courses including: i) a core unit in entrepreneurship and innovation; ii) small business management; iii) management of technology and innovation; iv) management of venture capital; v) corporate entrepreneurship; vi) managing strategic networks; vii) a commercialisation project involving workshops and industry mentors for students with actual technologies, and viii) a small business course designed for owner-managers that also involves industry mentors and applied workshops. The author has been responsible for the coordination of the UWA MBA suite of entrepreneurship courses, but this paper draws upon the work undertaken in the core unit. This course is designed to introduce students to the theory and practice of entrepreneurship and innovation (Mazzarol, 2006). It does this via a series of applied projects in which the students work individually or in teams to review their own behaviour and then to undertake case studies of entrepreneurs within the business community. Guest presenters are used throughout the course to supplement reading materials, lectures and group learning activities.

## **THE NATURE OF ENTREPRENEURSHIP**

Economic theory has recognised the entrepreneur since at least the 18<sup>th</sup> Century with the works of Richard Cantillon and Jean-Baptiste Say who described such individuals as the merchants, employers and project managers who engineered the economic activity (Boyett, 1997; Casson, 2003). Academic research into entrepreneurship from the perspective of management theory can be traced back to the 1950s with the work of Schumpeter (1954). Much of this work was driven initially by a relatively small number of authors working primarily within the United States (Shane, 1997). However, its growth as a field of study began to increase during the 1980s and has continued to accelerate rapidly since 2000 (Ireland, Reutzel & Webb, 2005).

Entrepreneurship as a field of study remains the subject of ongoing debate about its nature and how best to define it (Shane & Venkataraman, 2000) and how to measure it (Chandler & Lyon, 2001). Schumpeter (1954) viewed the entrepreneur as a force of creative destruction, who formed new business ventures and drove technological change that frequently led to the replacement of existing technologies, processes and practices within the economy. Shane (2003) has identified its key qualities as comprising discovery, evaluation and exploitation of opportunities in which survival, growth and profit are key operational measures that can be used to define entrepreneurship.

The creation of new ventures or the new entry of products, services or ideas into markets for in order to generate wealth and value is another feature of entrepreneurship (Lumpkin & Dess, 1996). It can involve the launching of new business ventures or the development of existing ones, and can involve both small and large firms. Key motivations for entrepreneurs have been identified as profit and growth, while key behaviour characteristics have been innovation and strategic thinking (Carland, Hoy, Boulton & Carland, 1984).

Casson (2003) argues that entrepreneurs need to be understood in both functional and indicative terms. From a functional perspective entrepreneurship relates to the ability of an individual to specialise in taking judgmental decisions about the coordination of scarce resources. Indicators of entrepreneurial behaviour are therefore associated with the ability of an individual to take risks based upon their judgment as to how best to allocate scarce resources to ensure a good return for the investment. Entrepreneurs are identified largely by their ability to create business ventures and to display the behavioural qualities of leadership, risk taking, adaptability and determination that such activity demands (Gartner, Carland, Hoy & Carland, 1988).

The study of entrepreneurship is also upon the process of how opportunities for new products or services and their associated ventures are discovered, evaluated and exploited (Venkataraman, 1997). Understanding the nature of entrepreneurship therefore requires attention to how opportunities are sourced, the processes through which they are discovered, evaluated and exploited, and the characteristics of the people or "entrepreneurs" who undertake these processes (Shane & Venkataraman, 2000).

The process of entrepreneurship may involve the creation of new ventures, but it does not necessarily require this to take place (Shane, Locke & Collins, 2003). Entrepreneurship can take place inside large firms in which managers undertake entrepreneurial behaviours to drive change or achieve their vision of creating new products or processes (Pinchot, 1987). Even the public sector manager can be entrepreneurial in nature (Boyett, 1997). It has even been sub-classified with technology and non-technology entrepreneurs of whom the former are those who establish ventures that have technology as the core element in their business case, and which are typically highly innovative (Jones-Evans, 1995). It can be encouraged or discouraged by the external culture into which the entrepreneur or nascent entrepreneur find himself or herself (Morrison, 2000).

## **ENTREPRENEURIAL TENDENCIES**

The characteristics that make one person an entrepreneur and another not have been examined in order to explain what factors might trigger new venture creation (Volery, Mazzarol, Doss & Thein, 1997). The entrepreneur has been studied in terms of their personality characteristics and the environmental forces that shape their behaviour and decide whether they will or won't engage in entrepreneurial activity (Bird, 1988). Key factors likely to influence the propensity for entrepreneurship are the need for achievement (McClelland, 1961), a tolerance for ambiguity (Schere, 1982), the propensity for taking calculated risks (Brockhaus, 1980); internal locus of control (Brockhaus, 1985) and the desire for personal control (Greenberger & Sexton, 1988). Factors likely to trigger entrepreneurial behaviour might also include the individual's previous work or career history (Storey, 1982; Ronstadt, 1988). Other characteristics include a person's gender (Buttner & Rosen, 1989; Kolvereid et. al., 1993), education level (Storey, 1982), family background (Scott & Twomey, 1988; Matthew & Moser, 1995), and ethnicity (Aldrich & Waldinger, 1990).

These drivers of entrepreneurship have been researched in some depth with several being identified as being of particular importance. Shane, Locke & Collins (2003) identified these as the need for achievement, the propensity for taking calculated risks, the tolerance for ambiguity, locus of control, self-efficacy, goal setting, independence, drive and ego passion. These qualities have been identified in different combinations as those that characterise the typical entrepreneur (Osborne, 1995). However, there is a concern within the literature as to whether entrepreneurship is primarily determined by innate personality traits or the environmental context into which the individual finds themselves (McCarthy, 1998). While the characteristics of the individual are important to the process of new venture creation, so too are the influences of

environment, the nature of the venture being developed, and the process that is required to get it going (Gartner, 1985).

The nascent or novice entrepreneur is likely to be influenced by their environment which serves to trigger their creativity and stimulate their desire for achievement leading to the formation of an entrepreneurial venture (Nodoushani & Nodoushani, 1999). External influences might include technology, the economy, and the individual's past career history, particularly in self-employment, the nature of the venture being created and the time taken for the entrepreneurial activity to commence (Gartner & Shane, 1995). In seeking to understand the process of entrepreneurship the role of both individual personality characteristics and the external environment need to be considered (Mazzarol, Volery, Doss & Thien, 1999).

## **A MEASURE OF ENTREPRENEURIAL TENDENCIES**

The use of psychometric tests within industry is now widely accepted (Holman, 2005). A range of tests have been prepared to evaluate managerial personality and to seek to measure the cognitive style of a person, potentially to determine how they might behave, or at least to explain their existing behaviour (Schweiger, 1983). The application of these psychometric measures to the examination of entrepreneurship remains in an early stage, although consideration has been given to the development of such measures in which reliable scales could be created since at least the 1970s (Hornaday & Bunker, 1970; Palmer, 1971).

One measure of entrepreneurial orientation is the General Entrepreneurial Tendencies (GET) test developed by Caird (1991a). The GET test measures five enterprising tendencies: i) need for achievement; ii) need for autonomy; iii) creative tendency; iv) calculated risk taking propensity; and v) locus of control (Caird, 1991; 1992). It is developed from a range of existing psychometric tests including McClelland's (1956) Thematic Apperception Test (TAT) as a measure of achievement, and Edwards Personal Preference Schedule (EPPS) (Grubb & Grathwohl, 1967) as a measure of autonomy. Honey and Mumford's Measure of Learning Styles (Mumford & Honey, 1992; Mumford, 1993), and Jackson's Personality Inventory (Jackson, 1976), which is a measure of risk-taking (Reddon & Jackson, 1989). Finally, the GET test incorporates elements from the Myers-Briggs Type Indicator (MBTI) which measures on four dimensions: i) introversion-extroversion; ii) intuition-sensation; iii) thinking-feeling and iv) judging-perception (Briggs Myers & McCaulley, 1985).

In an initial study of 262 respondents drawn from a range of occupational backgrounds, Caird (1991b) sought to validate the GET test. A sub-population of small business owner-managers was compared to managers from government agencies, academics, teachers, nurses and clerical administrative staff. This study found that the small business owners scored higher than the other occupational groups on the indicators for need for achievement need for autonomy and internal locus of control. They were broadly equal to such groups as teachers, academics and nurses on creative tendency.

The value of the GET test as a potential measure of enterprise competencies was proposed by Caird (1992) who acknowledged that while there was no clear understanding of what enterprise competency means, there was a need to examine this area in order to provide support and measurement mechanisms for educational courses targeted at enhancing entrepreneurial capacity. The GET test employs a series of 54 question items that provide measurement on the five key enterprise attributes. According to Caird (1993):

*The results of applying psychological tests shows that entrepreneurs have the following characteristics: a high need for achievement, autonomy, change, dominance; an internal locus of control; characteristics of risk taking, energy and social adroitness; a preference for learning through action and experimentation; and a preference for intuition and thinking.*

The GET test has been examined by other researchers. For example, Cromie and O'Donaghue (1992) conducted two studies using the GET test to evaluate the entrepreneurial tendencies of 194 managers and 661 undergraduate students. This study found that the GET test measure has criterion validity and was able to differentiate significant differences between the entrepreneur and the student populations suggesting that the instrument has good validity. Further work was recommended on the GET scales to assess their discriminant and predictive validity and general psychometric properties when used with different samples.

Persons with entrepreneurial propensity were viewed as those with high creative tendency, above average need for autonomy and high calculated risk taking orientation. Such people may also have high need for achievement and internal locus of control, but potentially not significantly different from others. Potential entrepreneurs were also more likely to have had a father who was self-employed or to have been self-employed at some stage in the past (Cromie, Callaghan & Jansen, 1992).

## APPLYING THE GET TEST TO ENTREPRENEURIAL LEARNING

Entrepreneurial learning remains an emerging subject, but it appears to be best developed when it is goal directed, experience based, impacts upon both behaviour and cognition, and is placed within the cultural context in which the student finds themselves (Sullivan, 2000). An important aspect of entrepreneurship is the ability of the entrepreneur to identify opportunities (Shane, 2000). However, while the MBA student is able to apply screening tools and strategic management frameworks to a business case, they are typically less prepared to undertake a process of self-evaluation in order to determine whether they are likely to take an entrepreneurial career path. While they may consider a business education is a useful grounding for a future entrepreneurial activity, it is not sufficient to trigger entrepreneurial behaviour (Levenburg, Lane & Schwarz, 2006).

Research into entrepreneurial learning and the design of entrepreneurship education programs suggests that students gain benefit from the study of entrepreneurial life stories or biographical cases that allow the student to relate their own situation to that of the successful entrepreneur. Further, confidence and self-belief are likely to be important ingredients to enhancing future entrepreneurial behaviour (Rae & Carswell, 2001). By listening to the stories of entrepreneurs, researchers and students can learn more about the factors that define and influence entrepreneurship. They also can bridge the gap between the theory and the practice (Rae, 2000).

Although the GET test cannot determine whether or not a person is going to be an entrepreneur, it is a tool that has some potential in assessing enterprise tendencies and therefore entrepreneurial orientation. It was therefore selected as a tool to assist MBA students to better understand their own entrepreneurial capacity and to relate this understanding to the wider subject of entrepreneurship. A group of 56 MBA student's who were enrolled in a course on entrepreneurship and innovation was administered the GET test and their scores were examined in class.

Each student was then tasked to identify a person who they felt exemplified entrepreneurship and to interview this individual, administering the GET test to them, and also interviewing them to get an understanding of their background. Timmon's (1999) "A visit with an Entrepreneur" interview guide was used as the structure for these interviews. This involves an exploration of who or what might have influenced the interviewee to embark on their entrepreneurial pathway, what role models they have, their past education and professional career, the factors that triggered them to become an entrepreneur and then how they spotted the opportunity, marshaled the necessary resources and implemented their vision.

The students gathered up the findings from their interviews and the GET tests they completed with 56 entrepreneurs, and prepared a report that sought to explain their own entrepreneurial orientation and capacity within the context of their own GET test scores, how these compared to those of the entrepreneur, and what the theories associated with entrepreneurial orientation suggest these findings reflect. All students were asked to triangulate their analysis around the two GET score results, their own and their entrepreneur's life story, and their reading of the literature. It was made clear to the students prior to commencing this study that the GET test was a measure that should be examined within its external context. In other words a person's GET test scores were likely to be influenced by their past personal and professional career history. It was therefore important for the students to think about their own life in context and how their previous work or family life had shaped their entrepreneurial orientation.

In selecting the "entrepreneurs" with whom these interviews were to be undertaken, the students were first required to read a number of academic papers that sought to define the nature of entrepreneurship and to allow them to better understand what an entrepreneur was or was not, or to debunk some pre-conceived notions about entrepreneurs (Brockhaus, 1987). It was explained to the students that they should not restrict their search purely to the self-employed, but to also look for entrepreneurs or "intrapreneurs" within larger firms who they felt display strong enterprise tendencies, because entrepreneurship can be found across a wide range of different enterprises (Livesay, 1989).

The assignment task described above was a major learning activity for the students within the course (Mazzarol, 2006). Underlying its design was the notion, initially described by Revans (1971) of P & Q learning. According to this theory, learning takes place in two types: i) P-learning, or programmed knowledge involving facts, theories and problems with known solutions; and ii) Q-learning, in which there are no known solutions but which might be influenced by ideology or environment (Leitch & Harrison, 1999). Students, particularly managers, are more likely to learn the most from interacting with other managers in attempting to solve or understand real life problems (Revans, 1971).

## FINDINGS FROM THE GET TEST

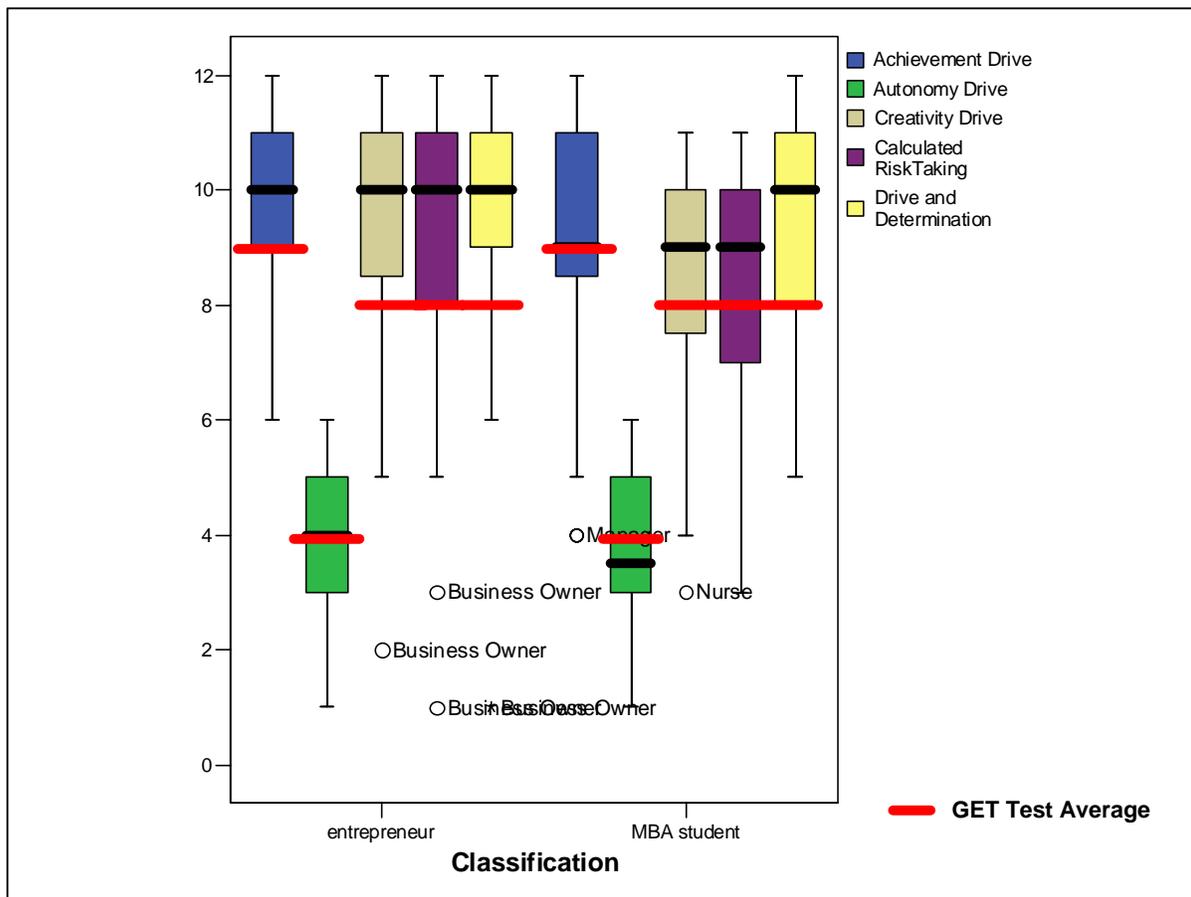
The results of the 112 GET tests undertaken by the MBA students and their entrepreneur interlocutors were examined using SPSS statistical software. Most of the sample was male, with men comprising 77 percent of the entrepreneur group and 61 percent of the MBA student group. Within the entrepreneur group 93 percent were described as business owners. Occupations within the MBA group varied, although the most common were managers (36%), full time students (21%) and engineers (12.5%). The mean age of the entrepreneur group was 42 years, while that of the MBA student group was 33 years. Most of the entrepreneur group (73%) and MBA student group (61%) described themselves as Australian in nationality, although there were a range of other nationalities found in both groups including American, British, Chinese, Dutch, Filipino, Indian, Indonesian, Irish, Italian, Japanese, Korean, Malaysian, New Zealand, Norwegian, Singaporean, Taiwanese and Zambian. No significant differences were found between the entrepreneur and MBA student groups in terms of their nationality.

Table 1 shows the findings from the GET test comparing the scores of the entrepreneur and MBA student groups on the five enterprise tendencies and also their overall score. The GET test has a series of maximum scores for each of the five dimensions that range from 6 to 12, as well as a series of suggested average scores derived from past studies of other occupational groups (Caird, 1991a; 1991b; 1992; 1993). It can be seen that in terms of the need for achievement the entrepreneur group score was significantly higher than that of the MBA student group, even though both groups were above average. On the need for autonomy score both groups were close to the anticipated average and no statistically significant differences were found between them. This was not the case for the creativity score, which found both groups above average, and the entrepreneurs to be significantly higher than the MBA students. In the area of propensity for taking calculated risks, the scores of both groups were above average, but the entrepreneurs were significantly higher than MBA students. Both groups were also above average in terms of their internal locus of control (a measure of drive and determination), but there were no significant differences found between them on this measure. Finally, the overall GET score of both groups was above average, although the entrepreneur group had a significantly higher score than the MBA group.

**Table 1: GET Scores – Entrepreneur versus MBA Students**

	Entrepreneur?	N	Max GET Score	Average GET Score	Actual Mean Score	Std. Deviation	Sig t-test (2-tailed)
Achievement Drive	yes	56	12	9	10.02	1.657	.037
	no	56	12	9	9.34	1.751	.037
Autonomy Drive	yes	56	6	4	4.05	1.432	.209
	no	56	6	4	3.71	1.411	.209
Creativity Drive	yes	56	12	8	9.36	1.967	.047
	no	56	12	8	8.63	1.884	.047
Calculated Risk Taking	yes	56	12	8	9.30	2.373	.017
	no	56	12	8	8.25	2.242	.017
Locus of control	yes	56	12	8	10.00	1.991	.143
	no	56	12	8	9.48	1.716	.143
Total GET score	yes	56	54	30-43	43.05	5.795	.001
	no	56	54	30-43	39.41	5.815	.001

These results can be further examined via Figure 1, which shows a box plot of the GET scores for the two groups. As with any box plot the mean score is illustrated with a black central bar in the middle of the box which contains 50 percent of all cases. The whiskers flowing from the top or bottom of the box represent the range of scores and extreme outliers a shown by circles. It can be seen that the entrepreneur group was generally above average on all the GET dimensions with the exception, as mentioned above, of the need for autonomy. The box plot also illustrates the fairly wide standard deviation found in both sub-populations although this variation was less pronounced among the entrepreneurs, particularly in the area of drive and determination (locus of control) and achievement drive.



**Figure 1: Box Plot of GET Test Scores (Entrepreneur & MBA Students)**

## FINDINGS FROM THE INTERVIEWS

The analysis of the GET test findings and entrepreneur interviews by the MBA students was revealing in the way it assisted these students to examine their own entrepreneurial propensity. Many students were rather surprised to find that the entrepreneur whom they interviewed had GET scores that were fairly similar to their own, and a life-story into which they could quickly place themselves. The following cases serve to illustrate this.

### Student Case #1

Case #1 is a male MBA student aged 48 of British nationality who was employed as a manager. His overall GET score of 46 was above average, something he initially found surprising:

*“This came as a surprise as I thought my enterprising tendencies would be average.”*

He noted that his highest score was on the creativity dimension, something he felt was unexpected as he had always lived “in the creative shadow” of his brother who was highly creative. In reflecting on these results and triangulating on his family background he noted that his social environment was rather conducive to entrepreneurship. Three of his uncles were all self-employed, as was his brother who owned his own design partnership in the UK. Many of his friends were also self-employed business owners and he felt that Britain was “a nation of shopkeepers” where there were a lot of government incentives to encourage people to start their own business. He also noted that he had many entrepreneurial role models such as Freddie Laker (Skytrain), Sir Richard Branson (Virgin) and Alan Sugar (Amstrad) whom he admired.

The entrepreneur he interviewed was a 40 year old Australian wine maker who owned and operated a successful winery and vineyard in the Swan River Valley near Perth, Western Australia. This person had no family members who were entrepreneurial or even self-employed, and his only role models were sportsmen. Well educated with university degrees in both applied science and business management, he had made the

decision to establish his winery nine years prior to the interview, had borrowed heavily against his family home, and launched without even preparing a formal business plan.

Compared with Student Case #1, the total GET score of the wine maker he interviewed was 34 which is average and also below his own. This came as something of a surprise for the student who noted that while he apparently had higher enterprising tendencies than the wine maker, the fact remained that his interviewee had a successful business and he did not. He concluded his analysis with the following comment:

*"So, am I an entrepreneur? The GET tests, the interview comparison, the literature, and my career all indicate I indeed have the characteristics of an entrepreneur. As Gibb (1988, p.11) says, entrepreneurs "can exist in all walks of life, and can display their individual entrepreneurial mixes to different degrees". The proof will be taking the first step and begin an entrepreneurial venture."*

### **Student Case #2**

Case #2 is a female MBA student aged 35 of Australian nationality who was employed as a registered nurse. Her overall GET score of 22 was well below average which caused her to proclaim:

*"The results of the GET indicate that I have the entrepreneurial tendencies of an inanimate object."*

Nevertheless she viewed herself to have the strengths of being forward looking, self-sufficient, optimistic and self-confident. In assessing her personal and professional background she noted that all her working career had been spent in public hospitals. Her father had been an engineer who had established his own consulting engineering business by his mid-40's before tragically dying at the relatively young age of 51. In her view the professional career that she had chosen was a key factor in influencing her GET test results:

*"In summary, I believe that my personal background and especially current context impacts highly on my tendencies towards entrepreneurialism. While I did have a positive role model in my father in terms of new venture creation, my chosen profession is one that, in direct patient care, requires conformation to rule with risk taking (even moderate) and creativity not valued attributes."*

The entrepreneur she chose to interview was a 62 year old Australian vascular surgeon who ran a highly successful medical practice which he had established 25 years prior to the interview. His decision to enter private practice had been driven by "an intense dislike" of being employed by hospitals where he worked long hours and became embroiled in their internal politics. At the relatively young age of 37 he had borrowed a personal loan from a bank and launched his own medical practice. The early years had been hard and he had been forced to work within the hospital on a staff position so as to generate sufficient income to keep his home and business going. The work pressures eventually cost him his first marriage, but by the mid 1980s he had established a privately owned vascular ultrasound laboratory as a separate new business to compliment his surgery. This innovation was a break through and positioned him as a market leader allowing him to grow the laboratory to the point where it employed over 30 staff and operated at five separate locations. At the time of interview the entrepreneur had just sold the laboratory business to allow him time to devote to his second wife and focus on a horse stud and wine import business that allowed him to visit France at least twice a year.

When analysing her interview and test scores Student Case #2 described the gap between her situation and that of the entrepreneurial surgeon as "world's apart". However, she noted that the difference between her and the surgeon was that he had a clear vision of what he wanted to achieve and had taken calculated risks in order to achieve them. By comparison she had a tendency toward "safety" and that as a nurse this was part of her professional training and orientation. As she explained:

*"I believe that my personal background and especially current context impacts highly on my tendencies towards entrepreneurialism. While I did have a positive role model in my father in terms of new venture creation, my chosen profession is one that, in direct patient care, requires conformation to rule with risk taking (even moderate) and creativity not valued attributes."*

An interesting conclusion to this case was that this student used the course to develop a business plan for her husband, a cardiac surgeon, to help him establish a new cardiac unit with another surgeon. In her words:

*"My poor (also vegetal type) husband was often overwhelmed by the discussions that I would force him to participate in!"*

### **Student Case #3**

Case #3 is a male MBA student aged 32 of Australian nationality who was a full time student at the time of the interview. His overall GET score of 49 was above average. Describing himself as the child of "conservative baby-boomers", he spent much of his early life living in Hong Kong where his family was based. As a middle child growing up in what he felt was a strict household, his main priorities were "family, education, conformity, hard work, status and success". Despite having "many entrepreneurial urges from the age of 7", his parents rebuffed all his desires to follow an entrepreneurial path and channelled him into a graphic design course at university. Unable to communicate easily with his parents he focused on his friends and moved overseas living for nine years in Japan and four more years in England prior to quitting "on a whim" to undertake an MBA in Australia and launch his own business. In his opinion:

*"Throughout my seven year career in the oil and gas sector, I was fortunate to have travelled to and worked in 17 countries (a wide sphere of influence), and on the inside, it would be fair to say that I am essentially the product of Italian and Japanese social values."*

The entrepreneur chosen by this student was a 64 year old male of Irish-Australian background who was the founder and principal shareholder of a marketing and advertising agency. There had been no history of entrepreneurship in his family background. His father was described as a "charitable public servant" whose lower middle class family was "under constant financial pressure". According to the entrepreneur his family fortunes fell to such a low level that they had survived purely from bartering wood. This life of relative hardship had driven the entrepreneur to focus on entrepreneurial activities from a very young age. He proudly claimed to have "never been unemployed" starting out in his childhood with an ice and milk delivery business, moving onto selling bicycles and cigarettes. He dropped out of high school and joined the Army for a short period which he described as giving him "discipline" and a "can do attitude". After joining a bank he claimed to have seen "the bigger picture" learning marketing and finance. Working for large firms as a marketing executive he eventually launched his own business in conjunction with some partners in the mid 1980s and successfully ran his business for over twenty years.

In analysing the interview and GET scores, Student Case #3 felt that this entrepreneur was quite typical of what an entrepreneurial person was like and he expressed a degree of admiration in what this man had achieved. However, the student also noted that in relation to the GET test scores his had been marginally higher than those of the entrepreneur. He put his own lack of entrepreneurial activity down to his family background and lack of self-confidence. As he explained:

*"I discovered through careful reflection that my low/moderate propensity for risk taking and internal locus (believed to stem from a conservative upbringing) are potential barriers to any large-scale entrepreneurial pursuits. Having said that, I believe that if I can build my confidence through a series of small successes (preferably with a partner), my risk-taking propensity will increase and perhaps one day, I might be the person being interviewed. I would therefore define myself as a nascent entrepreneur."*

### **Student Case #4**

Case #4 is a male MBA student aged 36 of Australian, New Zealand and British nationality who was employed as an engineer and manager at the time of the study. His overall GET score was 42 which is an above average. Born in New Zealand his family had moved to Australia when he was still a child. He felt that both Australia and New Zealand were countries that favour entrepreneurship, and his family had been supportive and "tolerant of failure". Taught to work hard by his parents, his father had been a factory manager and he had worked during the school vacation at the factory packing shelves which he found "boring and depressing", giving him a "determination to get a good education to not have to do that type of work again". He felt that he was willing to take risks and strive for achievement. His work had taken him overseas, serving as a project or operations manager in Malaysia, Hong Kong and the Philippines. Any spare money he possessed was invested in the share market. In assessing his entrepreneurial orientation he noted the need to trade off his capacity for this against the risks to his personal and family income:

*"My education, training, and experience should give me the necessary entrepreneurial skills needed, more experience would be an advantage. With a family (two young kids) I would need to carefully assess the risks of an entrepreneurial venture to ensure we have sufficient money for our future. In a general business context the Australian economy is booming, and employment opportunities are abundant. Being employed offers an inviting, and probably lower risk alternative than becoming an entrepreneur (with possibly lower rewards)."*

The entrepreneur he selected to interview was a 53 year old male who owned and managed a highly successful materials testing company servicing the booming mining and resource sector in Western Australia. This entrepreneur had displayed a desire for self-employment from a very young age selling eggs, cakes and refurbished bicycles so as to make some additional pocket money as a child. He attributed his early entrepreneurial flair to the "frugal upbringing" he had experienced. After graduating as an engineer he had worked for large corporations and spent twenty-five years working in Asia before returning to Australia to establish his business. His GET test score was 50 which is well above average and he scored high on all five dimensions. The entrepreneur felt he had grown up in a supportive family although he had had no exposure to entrepreneurial role models. Nevertheless, his father had encouraged entrepreneurship, and during his time in Asia he had met many entrepreneurs while gaining many of the skills he felt he needed to start his own business. He had purchased the business he now successfully managed out of a desire to take on the new challenge, be his own boss and follow his passion to grow and develop the company.

The analysis of the interview and GET scores found Student Case #4 somewhat surprised to find how much he had in common with the entrepreneur. Any differences between the entrepreneur and his own GET results were explained in terms of the life stage he was at, and the fact that the entrepreneur had been working for himself thereby gaining a greater sense of the need for autonomy. The analysis made him feel more confident in following an entrepreneurial path, as he explained:

*"The GET test showed the entrepreneur and I were above average in our tendencies towards being entrepreneurial with scores of 42 and 50, compared to average of 37, and maximum of 54. The results for the entrepreneur support the GET test theory. They suggest that, with an above average score, I am a potential entrepreneur. Thus I shall go and find the right opportunity!"*

## **DISCUSSION**

As these cases demonstrate the combination of the GET test, entrepreneurial interview and examination of the entrepreneurial theory assisted the majority of MBA students to gain both a better appreciation of the nature of entrepreneurship and to evaluate their own entrepreneurial capacity. The GET test measure provided them with a mechanism for quantitatively comparing themselves with the entrepreneur and in many cases they found to their surprise that they scored as well if not better than this person.

Teaching entrepreneurship at the MBA level requires a capacity to blend both structured "P-learning" with its focus on process, screening tools and strategy, with unstructured "Q-learning" with its emphasis on dealing directly with real life (Revans, 1971). As adult learners who typically have five to ten years of management experience, the MBA students that enrol in entrepreneurship courses, are typically keen to gain first hand, experience that they can apply to their own circumstances. The intention behind this activity is to get the students to better understand the nature of entrepreneurship and whether they might also follow an entrepreneurial path.

The ability of a student to listen to the stories of entrepreneurs and study their life has been identified as an effective method of teaching entrepreneurship (Rae, 2000; Rae & Carswell, 2001). Managerial education is also likely to be enhanced if students have the ability to interact with other managers to discuss real life issues (Leitch & Harrison, 1999). The use of the GET test and entrepreneur interview achieved both these objectives. By making direct contact with an entrepreneur and capturing a real life story the students were more likely to gain from the experience and will probably remember the meeting for many years to come.

As shown in the case studies, the process of interview, GET test analysis and personal introspection, allows the students to identify why they may or may not have the propensity to undertake entrepreneurial pursuits. For the majority, this experience led them to feel more confident about taking an entrepreneurial path, and many subsequently reported to the author, with some pride, how they were now successfully running their own business. For those that decided not to follow an entrepreneurial path, the opportunity cost of earning good steady income from salaried employment was the main barrier. As illustrated in Student Case #4, this can be a major issue for managers in their 30's that also have young families and the need to pay off both mortgages and student loans. At time of writing Australia's economy was booming and labour shortages were common across most industries. The temptation to go into paid employment was therefore high for MBA graduates.

In several cases the students established quite strong personal rapport with the entrepreneurs whom they met and these relationships blossomed into a form of mentoring. For example, one student, a 39 year old

Australian engineer made contact with an 83 year old entrepreneur and multi-millionaire who continues to serve as a mentor. After the student left full time employment to establish a business venture this mentoring support continued. During a particularly difficult period the mentor millionaire explained that at the same age he had been faced with near bankruptcy, but had persisted. This was a highly inspirational message for the younger man.

As a teaching tool the GET test has value in its ability to focus the student's thinking around the five key dimensions of enterprise tendency, and to provide a structured framework via which they can examine both their own life and that of an entrepreneurial role model. The GET test offers an interesting focal point for the student's discussions with the entrepreneur and encourages them to learn more about the underlying factors that influence the psychology and character of entrepreneurs.

Of importance is the need to get the student to understand that entrepreneurs are a product of both their social and family upbringing, as well as their professional career history. While personality characteristics can shape a person's entrepreneurial orientation, anyone can be enterprising.

## CONCLUSION

While largely descriptive in nature the findings from this study provide a useful insight into the way in which entrepreneurship can be taught to practicing managers. The study has its limitations; it was undertaken within a single university business school and conducted in a single country. Despite the use of the GET test in previous studies that have demonstrated its potential validity (Caird, 1991a; 1991b; Cromie, Callaghan & Jensen, 1992; Cromie & O'Donaghue, 1992), additional work could be undertaken to further evaluate its usefulness as a psychometric assessment tool. This was not the original purpose of the study but could be explored in future research.

Entrepreneurship is a relatively new subject of study despite its rising popularity in recent years. As a subset of the management discipline it is frequently a popular subject for students who are keen to make their own fortunes upon graduation. For many students the MBA is an opportunity to change career streams and consider self-employment. These students find entrepreneurship an attractive subject, but it is frequently taught as a process with the emphasis on opportunity screening and business planning. While such skills are of importance for the application of entrepreneurship, of equal importance is the need to shape the mental frame of reference of the student.

The use of self-evaluation measures such as the GET test, combined with the direct contact and comparison with a live entrepreneur, enables students to make sense of the concept of entrepreneurship and relate it to themselves. It can be concluded that while it is difficult to teach entrepreneurship directly, students can be brought to an understanding of their own entrepreneurial capacity through the application of diagnostic assessments (e.g. GET Test) and the examples of role models (e.g. the entrepreneur interlocutors). The study also suggests that all people have entrepreneurial traits and that environmental forces are likely to impede or enhance these. As the students found when they explored their own family and professional history and compared it to that of the entrepreneur, these previous social and economic experiences helped to shape whether they did or did not adopt an entrepreneurial orientation.

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