ARE WE THERE YET? STAGNATION IN ENTREPRENEURSHIP TEACHING PRACTICE TEN YEARS ON

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Introduction.
In 1997 the New Zealand educational practitioners journal “set” published a paper entitled Inadequate Perceptions of the Educator’s role (Cardow 1997). The paper reported on research conducted with pre-service economics teachers and their instructors within Colleges of Education. The two conclusions that were made from the above research were that training colleges saw their goal as “turning students into teachers”. It was implied that the skills of creativity and innovation in business are “not what colleges are set up to do” (p.4), that the pre-service teachers envisaged those involved in entrepreneurship as being someone with “The ability to make a profit while being innovative and taking a risk” (p.3) and entrepreneurship itself being something that was seen as “stepping outside normal bounds, making things happen” (p.3).

At the time the Cardow article was published New Zealand Colleges of Education did not see the teaching of entrepreneurship within New Zealand High Schools as being a high priority. This was despite widespread support within High Schools for long running programmes such as the Young Enterprise Scheme. In the late 1990s most New Zealand teachers were educated within a College of Education that stood apart from the University.

In the intervening decade the educational landscape within New Zealand has, with respect to both teacher training and entrepreneurship in the secondary sector, been dynamic. For example, most secondary teacher trainees are now educated within Universities. In addition, a new High School curriculum has been produced that explicitly refers to innovation and creativity, and to a lesser but still important aspect; entrepreneurship – being taught across the school curriculum (Ministry of Education 2007). Further, the New Zealand government through the Ministry of Economic Development has placed, and continues to place an emphasis on innovation and
creativity within the SME sector. As it has been 10 years since the publication of *Inadequate Perceptions*, and given the changes within the New Zealand secondary sector in the last ten years the authors set out to ascertain what, if anything has changed in the way pre-service teacher trainees and their instructors approach the construct of entrepreneurship.

At the time of writing, Peter Griffin commented in the New Zealand Herald (6th March, 2008) that New Zealand is experiencing a severe shortage of innovative, export-oriented technology companies. This is was said to be due primarily to the exodus of talent to greener pastures overseas and the lack of research funding to support technology start-ups. Technology is not the only domain where creative talent is lacking. With low unemployment, at the time of writing 4%, and an almost unrelenting demand for skilled and knowledgeable workers across most industrial sectors in New Zealand, education policy that encourages an entrepreneurial orientation is needed. As if in response the New Zealand Ministry of Education released in 2007 a draft school curriculum which was intended to go some way to addressing this ‘problem’. This document, to be discussed in subsequent sections below, makes it clear to the reader that teachers in New Zealand High Schools would be expected to pursue programmes of study that encourage innovation and entrepreneurship. For example on page 8 of the School Curriculum it is written that “our vision is for young people who will be creative, energetic and enterprising.” Our research investigates the ‘buy in’ that pre-service teachers have regarding the New School Curriculum; which went ‘live’ in 2008.

The interest in growing entrepreneurial talent is not a new phenomenon. From the early 1980’s throughout the world, western governments, now recognize that an entrepreneurial orientation may lead to economic growth, job creation, international competitiveness and technological advancement (Jack & Anderson, 1999; Ladzani & van Vuuren, 2002; Grebel et al, 2003; Audretsch et al, 2002). In line with this western paradigm, the New Zealand Ministry of Education has over the last 10 years developed an emphasis on enterprise and entrepreneurship. This could be seen as an attempt towards developing an ‘entrepreneurial culture’, for it has been acknowledged that entrepreneurial qualities can be developed through the education system (Gibb 1987; Klapper, 2004).

New Zealand has a popular history of encouraging entrepreneurial talent, albeit more by default than by design. See for example Riley, (1995) *Kiwi Ingenuity*, a book that helped to perpetuate the ‘number 8 wire’ ability of New Zealanders. The popular ‘can do’ attitude of the new Zealand stereotype, due to a strong agricultural sector, lack of proximity to large offshore markets and a focus on developing a strong local economy have generated a disproportionate focus on entrepreneurial activity and especially small business when compared to other developed economies.

After the release of the of Global Entrepreneurship Monitor in 2001, which indicated that New Zealand had a high level of total entrepreneurial activity, it became the position of the government that New Zealand has a reputation as a land of budding entrepreneurs (GEM 2001). This position was reinforced in subsequent reports from GEM (GEM, 2001; 2004). The pursuit of an Entrepreneurial orientation became a policy issue. In particular an entrepreneurial orientation throughout the schooling system was to be encouraged. One way of achieving this end was to increase the
participation in entrepreneurship education at secondary school level. Such participation has been linked with increased creativity, higher levels of individual self-confidence and esteem, as well as greater levels of academic participation (Cardow, 1997).

However, at the time of the Cardow article, the New Zealand education system had fallen well behind European governments in providing the teaching fraternity with formal mechanisms and tools to deliver education in this increasingly important subject (Cardow, 1997). The purpose of our article, as previously stated is to revisit the situation as it was reflected in 1997 and compare it to today’s circumstances. We acknowledge in this article that the world has also moved on from the original findings and will therefore spend attention on updating the current literature regarding the teaching of teachers to deliver entrepreneurship education.

**Entrepreneurship education**

Entrepreneurship is assumed to be a major source of innovation, job creation and growth and is recognised as a measure of a country’s economic health (Audretsch and Thurik, 2000 and 2001; Audretsch, Carree, Van Stel and Thurik, 2002). The way a country has established the educational system can also help lead people to develop qualities that are considered important for entrepreneurship (Reynolds, Hay and Camp, 1999).

In addition a finding, which we intend to focus upon, is the suggestion that entrepreneurial education should change its focus from ‘teaching’ to ‘learning’. For example Boyle, (2007) suggests that such a change places the emphasis on opportunity identification rather than on ‘problem solving’. The justification for this change in emphasis is that problem solving only leads to a reinstatement of the status quo and does not provide encouragement to look beyond the status quo (Boyle, 2007).– something that would require a change in teaching practice, structures and culture (Freed, 2005). Indeed this change in emphasis is clearly evident when reviewing the New Zealand School Curriculum. Hand in hand with the change in emphasis is also a need to recognise that an ‘enterprising’ attitude and approach to education leads to greater social cohesion, learning and economic growth (OECD, 2005)

Traditionally in New Zealand as elsewhere, the educational system has inhibited the development of entrepreneurial qualities because in general the system is more geared towards teaching young people to obey, reproduce facts and engage in wage-related employment after finishing their education. In contrast, the commonly held public belief is that an entrepreneur tends to rely on their own judgement, learn through a process of trial-and-error and create their own conditions in the work environment (Nicholson and Anderson 2005). We suggest that in order for students to recognise entrepreneurial opportunity there is a need for some degree of modification within educational instruction. However the current focus of the educational system appears to be on analytical thinking rather than on creative thinking (Fayolle, Gailly and Lasas- Clerc, 2006; Luckiw, 2007). The traditional school system has created uniformity among students and reliance upon an environment characterized by a high level of certainty, in short, work-ready individuals who are more or less productive from the moment they are employed. Whilst we acknowledge this can be a desirable outcome of the education system; we also recognize that within the traditional
paradigm there is little scope given to the entrepreneurial orientation. (Lumpkin and Dess 1996). In contrast to the traditional education system, entrepreneurial education is strongly associated with diversity among individuals having different backgrounds, interests, opinions and qualities and with recognizing opportunities in an uncertain environment. These differences are considered valuable, as variety is important for not only the efficient functioning of modern societies, but also to make a contribution to economic growth (Verheul and Thurik, 2001).

There is an increasing awareness amongst both scholars and policy makers of the importance of an educational system that allows for the development of entrepreneurs. Such an educational system creates awareness of alternative career choices and broadens the horizon of individuals, equipping them with cognitive tools and enabling them to perceive and develop entrepreneurial opportunities. Although there is considerable debate about the extent to which entrepreneurial qualities can be taught, i.e., about the ‘teach-ability’ of entrepreneurship, several authors agree that entrepreneurial qualities can be developed through training at an early age (Kourilsky and Hirshleifer, 1976; Kourilsky and Campbell, 1984; Rushing, 1990; Chell, Haworth and Brearley, 1991).

**Entrepreneurship teaching in New Zealand**

Our research commenced from the point of Cardow’s (1997) findings of the situation regarding teaching in entrepreneurship in New Zealand. To reiterate, the article concluded that New Zealand had fallen well behind other European countries in providing student teachers with the necessary tools and methods to teach entrepreneurship, innovation and creativity at a secondary school level. Subsequent findings confirm that New Zealand does not have a good track record of cultivating entrepreneurial behaviours in the formal education sector (GEM, 2004). Some initiatives, for example, the Young Entrepreneurs Scheme (YES) and Young Entrepreneurs Programme (YEP) aimed at encouraging business, rather than entrepreneurship, have met with limited success but have not led to any reported, sustainable entrepreneurial behaviour past formal schooling. A significant cause for this could be that both YES and YEP is not integrated into the secondary school curriculum and is consequently not afforded the same accreditation value as other subjects such as science, maths and economics.

An exception to this may be The Northland Enterprise Teaching (NET) project, introduced into selected Northland schools to stimulate flagging participation and interest in education by encouraging partnerships with local business and community groups. However NET is more than a relationship building initiative. It is an approach and methodology that influences school culture by embedding ‘enterprising values’ within an education context. The NET project targets the ‘education in enterprise’ dimension as it does not specifically focus on teaching in business subjects, but ‘being enterprising’ in teaching across the entire secondary school curriculum (Kirkley, 2005). In this way the NET closely resembles the outcomes envisaged within the New Zealand Curriculum.

As in the rest of the world, the number of tertiary institutions in New Zealand, offering entrepreneurship and new venture programs has grown significantly. There are no institutions that we are aware of that do not at least offer a single course on the topic. Some New Zealand institutions are offering Masters level programs in
entrepreneurship. The development of programs in entrepreneurship within universities in New Zealand mirrors findings of research from Europe (Kolvereid & Moen, 1997; Adcroft et al, 2004) with full undergraduate degrees majoring in entrepreneurship. The growth in these programs demonstrates an increasing awareness of the significance of an entrepreneurial approach and its importance to the economic health of the nation. This is mirrored in the recent release, by the Ministry of Education, of the newly developed secondary schools curriculum.

THE NZ SECONDARY SCHOOLS CURRICULUM.
In 2007 a new schools curriculum was released by the New Zealand Ministry of Education. The aim of the curriculum is to “set the direction for student learning and provide guidance for schools as they design their curriculum” (p.6). This new curriculum appears to have been written to arrest some of the previously identified ‘gaps’ in secondary school education. Those gaps are, in particular, aspects relating to enterprise, entrepreneurship, innovation and creativity. Notably the curriculum instructs teachers to encourage “creative energising and enterprising students” (p.8). Further, under the heading ‘confident’ the teacher is instructed that they should ensure that among other aspects the student should develop skills to be “enterprising and entrepreneurial” (p.8).

Such a clear distinction would suggest that the Ministry had different definitions for enterprising and entrepreneurship. If that is the case such difference is not explicit when reading through the curriculum. The impression the reader receives is that entrepreneurship and enterprising are used more or less as synonyms through the school curriculum. The ‘enterprising’ nature of the document is made explicit within the first few pages. Outlined very early in the document are 8 principles and 8 ‘values’. Enterprise and innovation are two key aspects these principles and values. More importantly for our research, critical and creative skills are considered to be a ‘key competency’ for any high school student to obtain (p.12). Despite the words enterprise, innovation, creativity being liberally scattered throughout the curriculum, when it came to the specific strands, entrepreneurship is only mentioned once. It is in the part of the document relating to Te Reo Maori. In this section it is claimed that students “will broaden their entrepreneurial and employment options” (p.14). How they are to do this is quite unclear.

There are other puzzling aspects of the application of innovation. For example it appears in technology, but not science. Again within the technology section teachers are reminded that students taking technology should “make enterprising use” of their time (p.32). However towards the end of the document on (p.39) teachers are instructed that enterprising is defined as innovative and entrepreneurial. It is this aspect in which we were most interested. To us, it looked like the teaching of entrepreneurship had moved on considerably since 1997. Due to the introduction of this document high school teachers were now required to teach entrepreneurship. We were interested to ascertain how they were going to do that and what specific tools they had received during their training to equip them to teach entrepreneurship to their students.

METHOD
Given that we were interested in uncovering the perceptions held by pre-service teachers about teaching entrepreneurship, innovation and creativity, and that we had
prior knowledge of the field but not of what participants were going to tell us, a grounded theory approach was considered to be the most suitable. In this research we based, but did not didactically follow, the concepts first suggested by Glaser and Strauss in *Discovery of Grounded Theory* (1967). It is an adapted approach following the refinements suggested by Strauss and Corbin (1990). These two authors expanded on the original grounded theory methodology and have refined the concept to include the prior knowledge of the investigative field held by the researchers.

The information was subsequently gathered over two months on three sites utilizing a semi structured interview process and involving a mixture of focus groups and individual interviews. The interviews took place at Teacher Training colleges throughout the major cities in New Zealand. Participants were interviewed in Dunedin, at the teachers college of the University of Otago, Wellington, at the teachers college of Victoria University of Wellington, and Auckland, at the teachers college of the University of Auckland. This approach has given us a good geo/sociological spread. The approach we adopted fits well with the purpose of grounded theory, in that we are attempting to uncover or develop theory from data previously gathered.

Once the data was gathered we were then able to critically examine the content of our interviews and focus groups by extracting common concepts and explanatory threads. By reflecting upon the previous study (1997) we were able to draw out an understanding of how pre-service teacher trainees perceived, interpreted and related to the concept of entrepreneurship. An important aspect of this work is that the personal, professional and theoretical experience of the researchers was drawn into the final analysis (Strauss and Corbin, 1994; Schatzman and Strauss, 1973; Layder, 1994). By following these refinements, as suggested by Strauss and Corbin (1990), we are able to allow for prior experience essential to the interpretation of the emergent data.

The interviews were subjected to a process of transcribing, coding and sifting for common interpretations and themes, which led to the construction of the following discussion and conclusions. This was done by comparing like incidents with like incidents, which Miles and Huberman (1994) describe as ‘pattern coding’ and Strauss and Corbin (1990) as ‘axial coding’. We then moved onto placing the data into conceptual categories that aimed to clearly identify the significance and meaning pre-service teachers gave to the concept of entrepreneurship. In constructing the analysis, we offer the reader one view or interpretation of the social environment in which pre-service teachers operate.

**FINDINGS**

The themes emanating from our discussions with the focus groups can be divided into three broad topics. First, the notion of ‘entrepreneurship’, what it means and how it is perceived. Second, how participant’s interpreted creativity and innovation as antecedent components of entrepreneurship. Finally how student teachers have been prepared through their training and education to deliver entrepreneurship, creativity and innovation in the secondary school curriculum.

**Perceptions of Entrepreneurship and entrepreneurs**
The first question asked of our subject groups concerned their understanding of the concept ‘entrepreneurship’. The majority of student teachers appeared to perceive ‘entrepreneurship’ as “doing something new” with one group suggesting that “entrepreneurship referred newness and creativity but in a technical sense it refers to people who run a business”. There were divergent perspectives as to whether entrepreneurship was more closely associated with economic processes and commercial activity on the one hand, or whether it could be more broadly applied to subject areas such as the Arts, Languages and Music. In two independent instances entrepreneurship was considered as ‘a way of thinking’.

However, with one exception, participants agreed that engaging in entrepreneurship was primarily an individual activity. One participant suggested that there could be a team of like-minded individuals pursuing an opportunity. For the majority of participants the entrepreneur is seen as a “business leader who undertakes risk”. The entrepreneur takes the lead in initiating a new venture and seeing it through to its natural conclusion, that is, ‘getting things done’. That said all participants also suggested that “Everyone” could be an entrepreneur, even teachers, and it was the drive to keep “doing things differently” that led to the sustainability of their behaviour. Participants could also distinguish between entrepreneurs and other small business owners by the degree of innovation introduced into the business. Entrepreneurs were perceived to have a sense of independence, personal drive and an ability to use their personal initiative. Despite some disagreement overall our participants came down on the side of interpreting entrepreneurship as being a business ‘activity’. In all cases there was a fairly lively debate concerning this issue.

A consistent finding across all groups was how unaware student teachers were about the requirement to teach entrepreneurship across the curriculum. A common thread running through the responses regarding topic selection in teaching entrepreneurship pointed toward general business subjects such as Marketing, Accounting, Finance and Economics. Teaching entrepreneurship was seen to be a ‘bolt on’ subject and not embedded in current subject matter. When asked whether they could specifically teach entrepreneurship, participants were unsure of what they would teach to address the subject. Many acknowledged the relevance of mainly business subjects to the teaching of entrepreneurship but could not provide any comment on ‘how’ they would go about doing so.

In this regard the pre-service teachers reflected the findings from ten years ago. In short entrepreneurship was seen and is seen as being firmly part of the business environment. There was a little buy in to the notion that an entrepreneurial orientation was a way of thinking or a way of viewing the world. Either way we were interested in the tools and techniques the various teacher training organisations were utilising in teaching entrepreneurship.

Perceptions of Creativity and Innovation
The antecedent concepts of creativity and innovation suffered the same fate as interpretations and perceptions of entrepreneurship and entrepreneurs. Participants became quite vocal about their focus on creativity and innovation in the classroom and claimed that this was an important aspect of their approach to teaching. However, other than a view that creativity was about ‘newness’ or something ‘unique’ none of the participants could provide a cogent understanding of either concept. They were for
the most part encouraged to ‘be’ creative and innovative in their particular subject areas and saw this as a significant challenge and opportunity to think outside the confines of conventional teaching delivery.

**Teaching delivery of entrepreneurship, creativity and innovation**

All participants reported that they had not been provided with any specific training or tools that would equip them to teach entrepreneurship, creativity or innovation. Other than being taught group work facilitation, they were not given any specific guidelines or practices that would achieve learning outcomes in entrepreneurship, creativity or innovation.

For example, when asked how a student would introduce the concept in the classroom? We were told from one site “I am struggling to be a good teacher let alone innovation and creativity – I’m not even sure what innovation means” and “I don’t think we have done much, the teacher has given us a work sheet”. A clear indication was emerging that there was a separation between the expectations of the curriculum and what was to be practised by the student teachers. This impression was further enhanced from responses in other sites, Again, in the students own words “We haven’t actually had a 101 on how to teach creativity or be creative”. Evidence that confirms that student teachers are being told they have to be creative in the classroom without being given any guidelines on how to perform teaching in these areas.

Space requirements prevent us from going into too much detail, however we close this results section with the following indictment. When asked how the students would teach entrepreneurship innovation and creativity, three required aspects of the curriculum, we were told “its an unreal expectation, if we are not told how to do it, Its unfair to be required to teach something we don’t know about”

**Conclusion**

In 1997 an article was published that illustrated the lack of understanding teacher trainees had regarding the entrepreneurial construct. Ten years on there has been a great number of publications attesting to the value of an entrepreneurial orientation in High School education. In the limited space we have had to present our recent findings, it is clear that such a dissonance still exists. The high school teacher trainee in New Zealand is expected to teach entrepreneurship, innovation and creativity. The New Zealand government, in publishing the New Zealand Curriculum has made it clear that they too expect the teacher to be able to teach aspects of entrepreneurship to New Zealand high school students. Unfortunately it would appear that the message has not quite got through to those that will be the future teachers in New Zealand. After speaking with prospective teachers we believe future work needs to be undertaken with some degree of urgency regarding possible ways in which tools for entrepreneurial education can be introduced to teacher trainees.
LIST OF REFERENCES


