

Entrepreneurship and Business Innovation

by

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This thesis has been presented as part of the requirements for the award of the degree of Doctor of Philosophy of Murdoch University. The thesis submission, which consists predominantly of published work, is made under the provisions of Section 28 (b) of the Postgraduate Research Degrees Regulations.

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November 2006

Declaration

I declare that this thesis is my own account of my research and contains as its main content work which has not previously been submitted for a degree at any tertiary education institution.

Signature:.....

Date:.....

Abstract

This study has examined the knowledge required for the publication of an Entrepreneurship and Business Innovation (E&BI) focused teaching text. The research design was based on a constructivist, interpretive paradigm, and utilised a qualitative methodology to support the development of a framework and content for a text. Data collection occurred through formal research, discovery and exploration of knowledge rather than verification, and was subject to my interpretation arising from my participation as an academic.

The analysis of data required a conceptual framework to be developed consistent with the research paradigm, and be so designed as to provide a way for me through a participatory process, to identify and evaluate knowledge in E&BI and investigate the research questions. The study rationalised that E&BI educational programs must first be consistent with, and reflective of, the mission of the institution providing such programs, and also, must address the learning needs of students. Previous research undertaken for this thesis had clearly identified a strong demand for material on E&BI that combined theory and practice with case studies drawn from real world entrepreneurial practices.

The outcome of this study resulted in the design of a formal text that was suitable for use by secondary, community and adult education institutions within Australia, for delivery to both a digital and print audience and representative of international E&BI good practice. The text "Entrepreneurship and Business Innovation" was published in 2005.

The published text was designed to provide new entrepreneurs and existing Small to Medium Enterprise owners with a practical guide on how to pursue business success based on established entrepreneurial and enterprise management techniques. The thesis has explicated the scholarly coherence and originality of the published work, and further places the text within a pedagogical framework.

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Chapter One - Introduction

1.1 Entrepreneurship and Business Innovation Education

Entrepreneurship and Business Innovation (E&BI) education from a small to medium enterprise (SME) perspective, has gained prominence in Australia. The emergence of E&BI as an important discipline of academic learning, reflects the broader economic recognition of E&BI toward employment and wealth creation (Bell, Callaghan, Denmick & Scharf 2004; Nelson 2004; Trewin 2004). Recently, the popularity of E&BI as a broadly accepted business philosophy and practice has gained ground. This has further resulted in an increased demand for relevant E&BI education (Kuratko 2003; Newton & Hennicks 2003). Not only has demand for E&BI knowledge increased, but it appears that the focus of this demand is toward a greater balance between purposeful theory and actual operational entrepreneurial practices (Kuratko 2003; Volkmann 2004).

Many institutions are examining best practice in E&BI education as a guide to establishing or enhancing E&BI academic programs including the development of suitable teaching resources (Solomon, Duffy & Tarabishy 2002; Kuratko 2003; Bell et al. 2004; Volkmann 2004). An issue for many higher education institutions, is that unlike traditional business disciplines, E&BI has a diverse student base, often from a non commerce background (Loucks, Menzies & Gasse 2000; Newton & Hennicks 2003; Volkmann 2004). In addition, academic institutions are now seeking a greater continuity of teaching content for E&BI education so as to allow improved participation by non tertiary students and the community in general

(Streeter, Jaquette & Hovis 2002). Subsequently, there has been an international focus to develop national standards for entrepreneurship education (Henry, Hill & Leitch 2003; Ashmore 2004; Bell et al. 2004). Australia has as yet to develop a recognised national standard for E&BI education, and, as a result, there is a dearth of suitable teaching texts, which reflect good practice.

To be effective, entrepreneurs need to have an in-depth understanding of the ongoing challenges in key functional areas such as marketing, finance, technology and operations. This capability will allow the entrepreneur to evaluate a number of business ideas before determining the one which generates the strongest support (Kirzner 1973; Kao 1995a; Thompson 2003a). Consequently, entrepreneurial management involves a distinct set of skills, perspectives, and insights, about the business problems and opportunities confronting the start-up and management of a total enterprise. To improve the likelihood of success of entrepreneurs, E&BI education now plays a key role in vocational, secondary and tertiary curricula (Sandercock 2001; Hayward 2004; Nelson 2004; Volkmann 2004). However, to enable entrepreneurs to develop the ability to repeatedly evaluate a business idea from a simple vision to a sound business concept requires that the teaching resources be aligned to good practice and the regional economic environment.

This thesis articulates the research and the development of knowledge required for the publication an E&BI focused teaching text. The thesis further explicates the scholarly coherence and originality of the published work, and articulates its distinctive contribution as an integrated work to the knowledge of E&BI.

1.2 Entrepreneurship and Business Innovation

Entrepreneurship is considered the process of doing something new (creative), and something different (innovative), for the purpose of creating wealth for the individual and adding value to society (Drucker 1985; Kao 1995b). Business innovation is considered to be the introduction of new or significantly improved goods and services, or improved operational, organisational or managerial processes (Trewin 2004). The art of business success often relates to the entrepreneurs ability to weigh a number of business concepts according to their likelihood of economic sustainability. Starting the right business at the right time requires more than just luck. It requires a structured process of entrepreneurial vision, market research, analysis, and balanced decision making (Kao 1995a; Thompson 2003b).

The fundamental activity of entrepreneurship is new venture creation. The foremost step in any entrepreneurial venture creation process is the recognition of the opportunity by the entrepreneur (Ronstadt 1984; Wickham 2004). Opportunity recognition perceives a possibility for new profit potential through the founding and formation of a new enterprise, or through the significant improvement of an existing enterprise. The idea for an entrepreneurial business is not always necessarily associated with an opportunity, but is often aligned with innovative business practices. Other factors must exist to support the new product idea for it to become an opportunity, as potential customers must want the product. Opportunity recognition can, therefore, be considered a process rather than a one time experience, and, as such, can be managed (Ronstadt 1984; Kao 1995a; Thompson 2003b; Wickham 2004).

1.3 Australian Perspective and International Trends

Within Australia, E&BI exists within the broader discipline of enterprise education (Nelson 2004). Enterprise education focuses on teaching students from the perspective of a small to medium enterprise (SME) about entrepreneurial and innovative business practices (Meredith 2001; Henry et al. 2003; Bell et al. 2004; Nelson 2004). Although SME E&BI is recognised as a significant field of study, as yet, there have been no significant Australian standards for enterprise or E&BI education established. Accordingly, the research for this thesis in identifying suitable knowledge to support the publication of an E&BI focused teaching text, has focused on international good practice and standards as a benchmark to develop a formal publication framework.

In contrast to Australia, international philosophies view entrepreneurship education as a lifelong learning process, bridging secondary, community and adult education (Henry et al. 2003; Kuratko 2003; Ashmore 2004). Arising from such a philosophy, national and industry E&BI standards within a supporting framework have been established. Using these frameworks, students are supported to have progressively more challenging educational activities and experiences that will enable them to develop the insight needed to discover, create and manage entrepreneurial opportunities (Kuratko 2003). The evidence further suggests, that due to the variety of E&BI programs being offered by educational institutions and community groups, the supplementary teaching resources, such as text books,

need to be overarching and support a framework of creativity, usability and accessibility (Kirby 2003; Newton & Hennicks 2003; Volkmann 2004).

Entrepreneurship, and more recently E&BI, are part of a rapidly emerging international learning trend. The most widely accepted programs, particularly at a tertiary level, are those that employ an interdisciplinary approach, which promotes the broad concepts of business disciplines but with in an innovative and creative learning environment. E&BI education has a greater focus on the creation of entrepreneurial and innovative skills, accompanied by an understanding of practical methodologies which facilitate the student to execute such entrepreneurial practices (Loucks et al. 2000; Solomon et al. 2002; Streeter et al. 2002; Kuratko 2003).

1.4 Research Objective

The objective of the research was to develop a framework and content for an entrepreneurship and business innovation focused teaching text. The study has endeavoured to develop material suitable to be published as a textbook with the following features:

1. representative of international E&BI good practice,
2. suitable for use by secondary, community and adult education institutions within Australia; and which is,
3. designed for delivery to both a digital and print audience.

1.5 Research Approach & Epistemology

Entrepreneurship and business innovation is a relatively young discipline (Kuratko 2003). The often intangible and variable conceptual nature of E&BI is such that a constructivist paradigm was selected for the ontological approach. The philosophy of ontology deals with the problem of the ultimate nature of things (Ticehurst & Veal 2000). Epistemology refers to the branch of philosophy concerned with the nature of knowledge, its scope, possibilities and general basis (Honderich 1995). Given the research objective a critical interpretive approach was utilised. A critical interpretive approach is one whereby the researcher is deemed part of the research process and endeavours to uncover meanings and gain an understanding of broad interrelationships in the context they research (Hessler 1992; Ticehurst & Veal 2000; Dooley 2001).

Given the correlation of the constructivist and interpretivist paradigms, a qualitative approach was adopted for the research methodology. Consistent with the chosen epistemology of this research and my subsequent interpretive participation in the study, I considered it important that my research perspective be understood. The research methodology as well as the impetus for the research are discussed in more detail in Chapter Three.

1.6 Researchers Perspective

I am a university lecturer with the Murdoch Business School at Murdoch University, Western Australian and have over 20 years of combined commercial management and academic experience. A primary focus of my duties at the Murdoch Business School has been the coordination and delivery of entrepreneurship, business feasibility, business planning and business innovation educational programs. The impetus for this research arose from the design, development and proposal for a new offering by Murdoch University, namely a Major in Entrepreneurship and Business Innovation. Resulting from the development of the program proposal, I ascertained that current academic E&BI resources and teaching texts were not effectively aligned with good practice, and, to a lesser degree, lacked pedagogical cohesiveness.

Being unable to locate an Australian focused teaching text that suited the needs of the new academic program, as well as reflected good practice in E&BI education, I researched and authored a text titled, "Entrepreneurship and Business Innovation". The content was developed through formal research, peer group consultation and from extensive utilisation of the E&BI knowledge and teaching resources previously developed by myself. Accordingly, this thesis explicates the scholarly coherence and originality of the published work and articulates its distinctive contribution as an integrated work to the knowledge of E&BI.

1.7 Original Research Contribution To Knowledge

E&BI, particularly from an SME perspective, is considered a key driver of our economy. Wealth creation and the significant majority of jobs are produced by SME's started by entrepreneurially minded individuals (Kao 1995b; Henry et al. 2003). Although E&BI has become an accepted economic tool within Australia, the academic discipline is still relatively young and is considered to be in a period of development and change (Nelson 2004; Schaper & Volery 2004; Volkmann 2004). Also of significance, is that unlike traditional business studies which are heavily reliant on conventional academic rigour, E&BI by its very nature, adopts varying frameworks based on the desired student learning outcomes (Streeter et al. 2002; Henry et al. 2003; Volkmann 2004).

The element of originality in research varies according to the nature and scope of the research. A PhD provides an original contribution to the field of knowledge of the subject with which the research deals (Blaxter, Hughes & Tight 2001). Originality is argued by Blaxter et al. (2001) as, the research approach and/or interpretation of the findings and, in some instances, the discovery of new facts. This thesis, its associated research and findings, has made an original contribution of knowledge to the business discipline, in particular, to the field of E&BI.

1.8 Structure of Thesis

1.8.1 This Chapter - Introduction

This chapter of the thesis provides an overview of the research and knowledge development process in terms of content, methodology, critical issues and the importance of the study and its contribution to business. The ensuing chapters of this thesis examine the relevant literature, consider the argument of the chosen paradigm and research approach used, present the content developed in support of the E&BI teaching text and make recommendations for future research.

1.8.2 Chapter Two – Literature Review

This chapter provides a literature review on E&BI and has attempted to bring together a range of issues considered relevant to the research and knowledge development.

1.8.3 Chapter Three – Research Scope and Methodology

This chapter is devoted to the research scope and methodology. A case is made for the selection of the constructivist/interpretive paradigm with a qualitative approach. As the thesis predominantly focuses on the knowledge discovered to support the development of a framework and content toward an E&BI text, this chapter will also examine the impetus for the research and how my emergent perspective was developed.

1.8.4 Chapter Four – Analysis, Discussions and Findings

This chapter is devoted to the data analysis, discussions and findings of the research. It presents, where appropriate, answers to the research questions and provides a conceptual framework for entrepreneurship education and the associated text publication. It provides further relevance of the knowledge developed from such research towards the content for the E&BI focused text.

1.8.5 Chapter Five - Conclusion

This chapter makes concluding remarks as to the research and the development of knowledge in support of the publication of an E&BI focused teaching text. It weighs further the pedagogical value of the outcomes of the study against the original impetus for the research. Recommendations are also put forward on future areas of research, in order to build on the outcomes of this study.

1.8.6 Appendix A – Entrepreneurship and Business Innovation

Publication

This appendix presents the published work “Entrepreneurship and Business Innovation”. The published work forms part of the thesis for examination. The scholarly coherence and originality of the publication as an integrated work is explicated within Chapters Three and Four.

1.9 Summary

Entrepreneurship and business innovation is a relatively young discipline (Kuratko 2003). Although SME E&BI is recognised as a significant field of study, as yet there have been no significant Australian standards for enterprise or E&BI education established. The impetus for this thesis arose from the research, design, and publication of a text in E&BI. This thesis explicates the scholarly coherence and originality of the published work and articulates its distinctive contribution as an integrated work to the knowledge of E&BI.

In identifying appropriate knowledge for the publication of the text, the research has focused on international good practice and standards in E&BI education. Arising from the often intangible and variable conceptual nature of E&BI, a constructivist paradigm was utilised for the ontological approach of the research. Furthermore, given the research objectives, a critical interpretive approach was also utilised. In the light of the correlation of the constructivist and interpretive paradigms, a qualitative research methodology was adopted.

The next chapter, Chapter Two – Literature Review, provides a review of relevant E&BI literature and examines a range of issues considered significant to the research and knowledge development of this thesis.

Chapter Two – Literature Review

2.1 Introduction

Although entrepreneurship and business innovation is considered a relatively young discipline, in recent times much research has been carried out on entrepreneurship education and how it can best fit into main stream learning (Loucks et al. 2000; Henry et al. 2003; Kirby 2003). The first objective of the study was to identify the knowledge considered appropriate to characterise a framework for an entrepreneurship and business innovation focused text. To discover this knowledge to support the development of a suitable publication framework, the research extensively examined entrepreneurship, business innovation and education focused literature.

Once a suitable learning framework had been determined, the second objective was to develop appropriate content for a text that was considered suitable for use by secondary, community and adult education institutions within Australia. The literature review also examined international E&BI good practice and identified the characteristics that would make it suitable to be used as a text. This was considered a secondary priority.

The methodology employed in the literature review was to examine significant prior studies published in recognised journals for the past ten years. The search of abstracts was conducted based on key phraseology associated with entrepreneurship, business innovation, business feasibility, business planning, good practice and education. The search not only focused on the key phraseology but on multiple linked relationships. Due to the lack of combined knowledge

between entrepreneurship, business innovation and their delivery in an educational environment, the journal review was complemented by a review of book-based and institutional literature.

The search returned over 900 articles. An initial examination of the abstracts, however, returned 190 related publications, of which only approximately 90 were assessed as being significantly relevant to the proposed research. The examination of the leading journals and recognised publications provided a theoretical foundation of the traditional approaches to entrepreneurship, and to a lesser degree, business innovation and educational practices. The review further provided a better understanding of new and emerging practices and what are considered good practice standards for E&BI education.

2.2 Definitions

2.2.1 Entrepreneurship

Entrepreneurship is considered the process of doing something new (creative) and something different (innovative) for the purpose of creating wealth for the individual and adding value to society (Drucker 1985; Kao 1995). The fundamental activity of entrepreneurship is new venture creation. The foremost step in any entrepreneurial venture creation process is the recognition of the opportunity by the entrepreneur (Ronstadt 1984; Wickham 2004). Opportunity recognition perceives a possibility for new profit potential through the founding and formation of a new enterprise, or through the significant improvement of an existing enterprise. The idea for an entrepreneurial business is not always necessarily associated with an opportunity, but is often aligned with innovative business practices. Other factors must exist to support the new product idea for it to become an opportunity, as potential customers must want the product. Opportunity recognition can, therefore, be considered a process rather than a one time experience and, as such, can be managed (Ronstadt 1984; Kao 1995a; Thompson 2003c; Wickham 2004).

An entrepreneur is someone who creates wealth through the identification of market opportunities, analysis of market forces and applies a willingness to take a degree of managed commercial risk (Ronstadt 1984; Kao 1995a). Based on the foundations outlined by Carland et al. (1983), an entrepreneur is an individual who establishes and manages a business for the principal purpose of profit, growth and

wealth creation. The entrepreneur is characterised principally by innovative behaviour and will employ strategic management practices in the business.

2.2.2 Business Innovation

Business innovation is considered the introduction of new or significantly improved goods/services or improved operational, organisational or managerial processes (Trewin 2004). Innovation is a process of taking new ideas through to satisfied customers. It is the conversion of new knowledge into new products and services (Zairi 1999). From an enterprise perspective, innovation can be considered the renewal by application of new technologies, methods and procedures at the cutting edge of business. Innovation should always be aligned with the market requirements, producing better products at more competitive prices; at a better fit to customer demand. In simple terms, innovation can be defined as the process that transforms ideas or concepts into commercial value for the benefit of the enterprise and the customer (Drucker 1985, McGrath & Bruce 1998).

Business innovation is closely aligned with proactive planning which links creating value and increasing efficiency, and, therefore, growing the value of the business (Zairi 1999). Without innovation, new products, new services, and unique ways of doing business would not exist. From an entrepreneur's perspective, innovation is the key driver of competitive advantage, growth, and profitability (Drucker 1985).

2.2.3 Small To Medium Enterprise

An enterprise is considered to be any organised effort intended to return a profit or economic outcome through the provision of services or products to an outside group (Carland, Hoy, Boulton & Carland 1983; Trewin 2003). The operation of an enterprise traditionally requires the investment of capital and time in creating, expanding, or improving the operations of a business or any other type of endeavour that has employees and contributes to the stability or growth of a community (Meredith 2001; Palmatier 2003).

Small to medium enterprises are considered those enterprises which have fewer than 250 employees. In distinguishing between small and medium sized enterprises, the 'small enterprise' is defined as an enterprise, which has fewer than 50 employees. These businesses are often referred to as 'SMEs', and are traditionally associated with owner operators (Meredith 2001; ATO 2004; Schaper & Volery 2004).

According to Carland et al. (1983), an SME owner is an individual who establishes and manages a business for the principal purpose of furthering personal goals. The business is their primary source of income and will consume the majority of the owner's time and resources. The owner perceives the business as an extension of their identity and is intricately bound with family needs and desires.

2.2.4 Enterprise Education

Within Australia, enterprise education focuses on teaching students from a small to medium enterprise (SME) view point about entrepreneurial and innovative business practices (Meredith 2001; Henry et al. 2003; Bell et al. 2004; Nelson 2004). Entrepreneurship education provides students with learning outcomes that enable them to develop the insight needed to:

- ascertain and create entrepreneurial opportunities,
- evaluate potential business concepts and,
- manage their own businesses to take advantage of the opportunities (Henry et al. 2003; Ashmore 2004).

Business innovation, which is considered as being complementary to entrepreneurial education, provides students with learning outcomes that enable them to critically examine the introduction of new or significantly improved goods/ services or improved operational, organisational or managerial practices for the purposes of creating value (Drucker 1985; Lammers 2001; Ashmore 2004).

2.2.5 Business Feasibility Study

A Business Feasibility Study can be defined as a controlled process for identifying problems, opportunities, determining objectives, describing situations, defining successful outcomes, and assessing the range of costs and benefits associated with several alternatives for solving a problem (Drucker 1985; Thompson 2003b).

The Business Feasibility Study is used to support the decision making process, based on a cost benefit analysis toward the actual business or project viability.

The feasibility study is conducted during the deliberation phase of the business development cycle, prior to commencing a formal Business Plan. It is an analytical tool that includes recommendations and limitations, which are utilised to assist the decision-makers when determining if the Business Concept is viable (Drucker 1985; Hoagland & Williamson 2000; Thompson 2003b; Thompson 2003d).

A feasibility study is essentially a process for determining the viability of a proposed initiative and is used to evaluate if the proposed investment or business is feasible based on the results obtained from a well-prepared and researched study. The purpose of the Business Feasibility Study is to provide the entrepreneurs, investors and stakeholders with sufficiently detailed information (evidence) in order to satisfy them that the Business Concept is financially viable (cost versus benefit) and that the Business Concept can be technically (functionally) achieved. The study will not only reduce risks but will compile the research data into an evidentiary framework that can be utilised more effectively to convince stakeholders of the business's viability (Thompson 2003b).

2.2.6 Business Plan

A Business Plan is a detailed road map for the start-up process and how the operational requirements of the business will be achieved. A Business Plan contains everything in the feasibility study, plus specific time-lines, detailed budgets with forecasts, operational and resource schedules and a functional articulation, both at the executive and operational levels of the enterprise (Hoagland & Williamson 2000; Truitt 2002). The Business Plan is an agreement on how the business's management team plans to carry out certain functions to achieve business results and serves as a means of measuring the enterprise's performance (Truitt 2002). Lastly, the Business Plan is a document that will assist the process of raising capital from banks, private investors, or other sources. The Business Plan should strongly communicate the Business Concept, its viability, the business model and the management structure that will be used to reach the business objectives (Thompson 2003b; Thompson 2003d).

2.3 Entrepreneurship and Business Innovation Scope and Theory

A brief history of the development of entrepreneurship serves to authenticate its practical origins and provide some insights to its pedagogical consideration by academics. An understanding of the history of entrepreneurship is presented below:

- Cantillon's observation that a person taking risks is different from the one supplying capital (1725) (Hisrich 1986);
- Baptiste Say's concept that the profits of the entrepreneur are separate from the profits of capital (1803) (Hisrich 1986);
- Schumpeter's tenet that an entrepreneur is an innovator who develops untried technology (1934) (Hisrich 1986);
- Drucker's seminal definition that an entrepreneur is someone who maximises opportunity (Drucker 1984);
- Meredith, Nelson and Neck's (1982) central recognition of entrepreneurial activity as a practice whereby entrepreneurs find and evaluate opportunities and gather information to manage risk to take advantage of these opportunities;
- Ronstadt's creative definition of entrepreneurship as the dynamic process of creating incremental wealth by individuals who assume the major risks in terms of equity, time, and commitment or providing value for some product or service, which may or may not, be new or unique, but value must somehow be infused by the entrepreneur by receiving and allocating the necessary skills and resources (Ronstadt 1984);

- Hisrich's definition of entrepreneurship as the process of creating something different with value by devoting the necessary time and effort, assuming the accompanying financial, psychological, and social risks, and receiving the resulting rewards of monetary and personal satisfaction (Hisrich 1986);
- Stevenson and Jarillo's view that entrepreneurship is the relentless pursuit of opportunity without regard to resources currently controlled (Stevenson & Jarillo 1989); and,
- Hart, Stevenson and Dial's revised definition of entrepreneurship as the process by which individuals pursue opportunities without regard to alienable resources they currently control (Hart, Stevenson & Dial 1995).

Entrepreneurship comprises three underlying dimensions: innovation, risk-taking, and proactiveness (Drucker 1985; Hills & Morris 1998). Within this ideology, innovation refers to the seeking of creative, unusual, or novel solutions to problems and needs. This includes the development of new products and services, as well as new processes and technologies for performing organisational functions. Risk-taking involves the willingness of the entrepreneur to commit significant resources to opportunities that could lead to failure. These are risks, which are perceived as calculated and manageable. Proactiveness is concerned with the implementation and creation of events. Hills and Morris (1998) argued that accomplishing a task through managed risk and adopting those business techniques that best meet the circumstance through innovation and change are central to their concept of entrepreneurial process. Likewise Nelson and Johnson (1997, p.11) define an entrepreneur as "a person who is able to look at the environment, identify opportunities for improvement, gather resources, and implement action to maximise those opportunities."

Drucker (1985) argues that innovation is the explicit instrument of entrepreneurship. He defines innovation as the act that endows resources with a new capacity to create wealth. Similarly, Trewin (2004) defines business innovation as the introduction of new or significantly improved goods, services or improved operational, organisational or managerial processes. Zairi (1999) too considers innovation as a process of taking new ideas through to satisfied customers, a conversion of new knowledge into new opportunities. A consensus also exists amongst many academics and authors that entrepreneurship cannot exist without business innovation, and as such, innovation forms an integral part of any entrepreneurial curriculum (Drucker 1985; Grant 1998; Streeter et al. 2002; Kuratko 2003).

From a more outcome-based perspective Kent (1990) defines entrepreneurship by its results than by its characteristics. Kent presents five processes that entrepreneurs are recognised as performing, namely:

1. "to introduce a new product or service in the market or implement a new approach to a social problem;
 2. to develop and implement a new technology that lowers costs and improves efficiency;
 3. to open a new market by introducing products, services, or technology not previously available;
 4. to discover a new source of supply for a scarce resource or methods of increasing the supply from existing resources by more efficient exploitation;
- and,

5. to reorganise an existing enterprise, either private or public, by innovative management. “

Kent argues that under these definitions entrepreneurship is much broader than just starting a new business venture. He asserts that entrepreneurship can include innovative activities within the full scope of commercial activity and does not confine them to starting and managing a SME.

Similarly, from a theoretical view point, Bygrave (1989) defined an entrepreneurial process as the creation of a new organisation to pursue an opportunity. Also, utilising a process perspective, Wickham (2004) describes the entrepreneurial process as having the following process characteristics:

- initiated by human decision,
- takes place at the level of an individual enterprise,
- discontinuous,
- a holistic process,
- a dynamic process,
- a unique process,
- includes various antecedents and variables, and
- produces results, which are very sensitive to the initial nature of said variables.

Wickham's (2004) concept of entrepreneurship focused on the model by which entrepreneurs create wealth, and this is achieved through opportunity recognition,

resource management and organisation. At the core of Wickham's (2004) argument was that entrepreneurial performance results from a combination of industry knowledge, general management skills and personal motivation. It is central to his argument, however, that he characterises entrepreneurial success as being reliant on understanding the entrepreneurial process so the right decisions can be made at the right time. Thus, Wickham (2004), in common with Hills and Morris (1998), believes that understanding the entrepreneurial process represents the strongest learning attribute. The issue for consideration, which follows from this is, can entrepreneurship be taught?

2.4 Entrepreneurship Education Conceptual Model and Review

To a great degree academics are still in the adolescent stages of the field, particularly when it comes to sophisticated research, to fully understanding the characteristics of the entrepreneur, and developing fully effective academic programs. Research on entrepreneurship education is limited, with the development of the literature in the area emerging only in the past two decades. While the field is expanding, most of the research has tended to be fragmented, and has an exploratory, descriptive orientation. Many authors have found that there are a lack of accepted paradigms or educational theories of entrepreneurship, with curricula often being developed to meet the particular needs of the institutions and learning outcomes of the students (Hills 1988; Klatt 1988; Kent 1990; Gravan & O'Conneide 1994; Hills & Morris 1998; Onstenk 2003; Collins et al. 2004; Enterprise Directorate General 2004). If tertiary education in entrepreneurship is to grow toward maturity as an academic field, research must

be continued to understand the principal participants, the entrepreneurs, in order to gain a better understanding of who they are and what is needed to educate them (Ronstadt 1990).

Research literature on entrepreneurship has demonstrated that even though many entrepreneurs have emerged with limited education, entrepreneurs who have attained high levels of education, tend on the whole to be noticeably more successful (Hills & Morris 1998; Scott, Rosa & Klandt 1998; Henry et al. 2003; Kuratko 2003). Accordingly, the business entrepreneur, the innovative enterprising individual who pursues wealth, as a result of a structured entrepreneurial education and training program, has gained prominence as an accepted philosophy (Pyke 1998; Scott et al. 1998; Newton & Hennicks 2003). Although entrepreneurship, and to a lesser degree business innovation, have become accepted fields of study, considerable debate still exists among academics as to what form, and to what purpose, this education should occur. McMullan and Gillin (2001) assert that although universities have been offering entrepreneurship courses for some time, they have been doing so within a traditional business framework. McMullan and Gillan argue further, that the philosophy of making entrepreneurship students study within a traditional framework, fails to recognise the creativity inherent in the entrepreneurial process. Continuing the same theme, Kirby (2003) considers that teaching entrepreneurship within a traditional business framework is a dogma for many business schools, which have at their academic core business educators and not business creators.

Entrepreneurship education gained international popularity in the late 1960s, particularly in the United States. Two models of teaching entrepreneurship

emerged, one focused on traditional business management, and the other a separate entrepreneurship discipline, which focused on new enterprises and start-ups. This new enterprise start-up approach contrasted with existing managerial doctrine (Grant 1998; Kuratko 2003). The broader objectives of these courses in entrepreneurship were identified as being:

- to identify and evaluate the characteristics of prospective entrepreneurs;
- to evaluate the opportunities and risks of a venture;
- to assemble financial, technical and human resources to initiate a new venture; and,
- to create, develop, acquire or merge a business (Plaschke & Welsch 1990).

From a more historical perspective, Rolffe (2003) asserts that in teaching entrepreneurship it is important to note that entrepreneurship has at least two broad dimensions; awareness, and skills. A program that focuses only on the skills and practices entrepreneurs need to start or operate a SME, often neglects those students who are not aware that they could choose the career path of becoming entrepreneurs themselves. Awareness education should focus on the past, present, and future roles that entrepreneurs play in society. The education of students should consider the importance of entrepreneurs in the growth and development of the economy. Similarly, Carland et al. (1983) argued that if the desired outcome of an entrepreneurship program is an integrated understanding of business principles, and the desired approach is a hands on format, the logical

structure is to employ a project approach, which would take students from the business idea generation, through the establishment of that venture and into the growth, expansion, and diversification of the business.

Alternatively, there are contrasting schools of thought according to which entrepreneurship cannot be taught but must be experienced. Henry et al. (2003) asserts that entrepreneurship can, in fact, be taught, but the learning is related to the entrepreneurial process rather than art of entrepreneurship. Similarly, Sandercock (2001) argues that entrepreneurship can be taught, but it must be relative to the economic environment of the proposed knowledge application. In contrast, Kirby (2003) suggests that entrepreneurship must be experienced, and although this experience can be enriched through traditional business education, he argues that university business schools may not, in fact, be the most appropriate environment to do this. Kourilsky and Walstad (2002), on the other hand, assert that entrepreneurial education experiences, particularly from 18 to 26 years of age, greatly influence the student's pursuit of commercial opportunities. From a more balanced view point, Streeter et al. (2002) reasons that although entrepreneurship can be taught, such education should reflect the essential tools and commercial processes allied with the core entrepreneurial activities associated with new venture creation. This raises the question, what graduate outcomes would be desirable in an entrepreneurship program.

The entrepreneur requires different management tools from the traditional business practitioner (Henry et al. 2003). Drucker (1985) asserts that entrepreneurs, although innovative and creative, require systematic, organised, and purposeful management approaches. There is also a need for individual

entrepreneurs to make decisions regarding their own roles and on the viability of their business ventures. To accomplish this, the entrepreneur needs an understanding of the both the theory and actual operational practices associated with key enterprise disciplines such as marketing, finance, technology and operations (Hills & Morris 1998; Pyke 1998; Henry et al. 2003). Supporting this view, McMullan and Gillan (2001) assert that a good entrepreneurial course requires the practical application of theory, but with due recognition of the actual process of the application.

Equally, Ulrich (2001) argues that understanding the functional management skills of entrepreneurs is critical to developing an effective entrepreneurial program. He suggests that the level of proficiency achieved in the management skills required by an entrepreneur indicates how well the entrepreneur may perform in an enterprise.

The management skills, which are considered to contribute to the success of an enterprise start-up are defined as:

- (i) *“Business Planning; Plan the enterprise before establishing it.* A well-thought-out business plan ensures that the entrepreneur can establish the enterprise confidently because the necessary research and planning has been done.
- (ii) *Management skills; Have management skills and use advisors and/or experts when necessary.* Entrepreneurs usually know, or find out very soon, what their strengths and

weaknesses are. It is then logical for entrepreneurs to start an enterprise in which they can use their personal characteristics and management skills effectively.

- (iii) *Client service:* Client service, combined with good human relations ensures that an entrepreneur is sensitive to the client's needs. Personal service is important. Administrative and technical factors are also important for good client service.
- (iv) *Knowledge of competitors:* Successful entrepreneurs know who the competitors are, how many there are and how influential they are, what each one's market share of the target market is, and what the quality of their products is like. They know how to distinguish themselves from competitors to ensure and expand market share. They investigate their competitors' strengths and weaknesses and use a competitor's weakness as an opportunity in the enterprise.
- (v) *Market-oriented:* Successful entrepreneurs are market-oriented. They know who their target market is, what the target market's requirements and needs are and how to meet these needs profitably.
- (vi) *Realise the importance of quality products/services:* Successful entrepreneurs aim to provide quality products to customers and still turn a profit. To do this, costs must be

kept under control without affecting the quality of the products. Quality products and services contribute to the marketing of the enterprise because they ensure new clients through the personal recommendations of existing, satisfied clients.

- (vii) *Bookkeeping for personal purposes:* Successful entrepreneurs realise they need to understand their bookkeeping systems. Simplicity and usability are the most important characteristics of the system.
- (viii) *Insight into costs, income, profit, loss and so on:* Entrepreneurs know how to calculate profit and what it means to make a loss. They know which costs are essential for survival and understand the implications of increased expenditure.
- (ix) *Ability to use income judiciously:* Successful entrepreneurs exercise financial discipline and understand how money should be spent and what it should be spent on to ensure success. Entrepreneurs must constantly make decisions on expenses to be incurred. They have and develop the ability to make the right decisions for ensuring growth (Ulrich 2001).”

Although Ulrich considers these as necessary entrepreneurial management skills, he recognises that few, if any, successful entrepreneurs have all these skills, and that it is just as important to understand the entrepreneurial process so external expertise can be sought when required. Arising from this is a problem common to many university business schools; they tend to appreciate management disciplines from a traditional pedagogical perspective, and are often unable to present them for non-business students who make up the majority of individuals seeking education in entrepreneurship (Scott et al. 1998; Kirby 2003; Volkmann 2004).

The concept of entrepreneurship can be regarded as an innovative path of creation. Entrepreneurship is an ongoing process of developing ideas, creating opportunities and interactions which finally eventuate as outcomes (Carland & Carland 2001). The creation of a new enterprise or a different product requires a creative action. To set up an enterprise, or to find a better way to develop a project, demands the aspiration to think and to act differently (Hills 1988; Collins, Hannon & Smith 2004). The role of creativity clashes with conventional thinking in some respects as many academics feel that creativity cannot be taught but must be experienced, and therefore, does not fit into mainstream higher education (Hills 1988). Similarly, many advocates of entrepreneurship education assert that the role of the entrepreneurial programs should focus on providing the students with an appreciation of the commercial theory and practical tools they can apply in developing their business venture (Keisner 1990; Kao 1995b; Grant 1998; Collins et al. 2004).

Much of the work in entrepreneurship education has focused on the notion that entrepreneurship is the start-up of a new SME. Simply setting up a SME and doing what has been done in the past involves initiative, risk, and takes proactive planning. However, if there is no innovative aspect to it, the true spirit of entrepreneurship, that is value adding resources into new, more productive uses, is lacking (Grant 1998). Accordingly, a program in entrepreneurship should focus on innovation as an inherent aspect of entrepreneurial endeavour, and should challenge students to look for opportunities or initiatives that have not been taken in the past. Although concepts of entrepreneurial education models vary among academics, prior studies have identified a number of core goals that can be considered applicable for most education programs in entrepreneurship, namely:

- to define entrepreneurship as a creative business whose fundamental purpose is to create value by innovatively bringing together resources to exploit opportunities for the purpose of wealth creation;
- to promote an understanding of the economic environment, and how within this environment, enterprise concept development, business research and business viability determination occurs;
- to promote the role of business planning as a framework to articulate the broader commercial processes, such as legal frameworks, marketing, business strategy and financial management; and,
- to promote the enterprise start-up process as a managed outcome based significantly on resource allocation, decision making and the application of technology (Carland et al. 1983; Ronstadt 1984; Grant 1998; Hills & Morris 1998; Pyke 1998; Lammers 2001; McMullan & Gillin 2001; Henry et al. 2003).

An often unrecognised issue for universities is that they now find themselves providing entrepreneurial seminars and intensive short courses for potential or practicing entrepreneurs. These are often done through centres or institutes, which are non-academic units of the university. The problem faced by universities, is that these unique groups of students often expect a higher level of professional content and delivery capability (Grant 1998; Loucks et al. 2000). Furthermore, studies point out that these students also expect a greater level of practical process knowledge, so they can apply what they have learned to actual real world situations. This in itself creates a challenge for many universities to make a pedagogical shift from theory to vocational or professional based education (Collins et al. 2004). Too often, it appears that many universities have failed to recognise the current technology driven shift by graduates to pursue self-employment opportunities. Accordingly, many universities are offering programs, which are not fully aligned to the self employment vocational needs of graduates. There has been limited research completed on the effectiveness of these intensive entrepreneurial programs; nevertheless, their continued popularity and growth testifies to their value (Henry et al. 2003; Collins et al. 2004).

2.5 Entrepreneurship Curriculum and Teaching Texts

Broader educational trends and student demand have been consistent with an emphasis on influencing the development of entrepreneurship education. Academia appears to be moving in a very definite direction toward a new period of entrepreneurial education. Specifically, a number of recent events at the academic level suggest that interest in entrepreneurship will continue to grow for some time. Prior studies assert, that the new school of entrepreneurship which is emerging to fill this need, is more consistent with entrepreneurial reality (Ronstadt 1984; Grant 1998; Hills & Morris 1998; Hayward 2004). The course content and approach of this new school of thought has explicitly recognised and emphasised these new perspectives of the entrepreneurial process. This new knowledge about entrepreneurship suggests a need for new and better pedagogical approaches (Ronstadt 1990).

The historical view point of entrepreneurship recognised the importance of time, but it was emphasised in terms of the time it actually took to start and establish a new venture (Ducheneaut 2001; Ulrich 2001). The new school takes this concept a step further. Entrepreneurship is a process where the scarce factor is still the entrepreneur's time, however, the scarcity impacts directly on opportunity recognition, investigation and development, before, and while starting the enterprise. Such activity is needed in most instances to realise entrepreneurial ambitions, and to experience at the very least a successful entrepreneurial career. Time is the scarce factor, not only in terms of the actual start-up and later

operations, but in terms of planning and investigating new venture opportunities (Ducheneaut 2001).

The evidence further suggests that entrepreneurial programs have a greater focus toward cross-functional integration, a change from the quantitative to the qualitative, from the logical to the subjective, and the conceptual to the practical (Carland et al. 1983; Grant 1998; Hills & Morris 1998; Kuratko 2003). This recent development in entrepreneurial education is represented in many entrepreneurial programs with various teaching objectives dependent on students learning outcomes. Hills and Morris (1988) present these learning outcomes as follows:

- increase awareness and understanding of the process involved in initiating and managing a new business enterprise;
- increase student awareness of the new venture/smaller-company career option;
- develop a fuller understanding of the interrelationships between the business functional areas;
- contribute to an appreciation of the special qualities of the entrepreneur; and,
- increase understanding of the role of new and smaller firms within the economy.

As acceptance of entrepreneurship education into mainstream programs has increased, the blurring of boundaries between historical management disciplines and entrepreneurship has led to a compromise among academics between

developing innovative creativity and program viability. Although many academics argue that this concentration of curriculums threatens entrepreneurship as a field, it is considered by many as a broader legitimisation of the field (Grant 1998; Ducheneaut 2001; Ulrich 2001). Thus, many argue that in developing a text the first area of importance is to recognise the design of the curriculum and provide relevance of material (Grant 1998; Hills & Morris 1998; Breen & Bergin 2000; Collins et al. 2004). The issue for many entrepreneurial curriculums is that a suitable text will vary not only from the desired student learning outcomes, but will also be affected by the framework of the broader program such as conventional management disciplines (Ronstadt 1984; Plaschke & Welsch 1990; Grant 1998).

Hills and Morris (1988) emphasise textbooks should also be developed to more fully amalgamate the entrepreneurial perspective, balancing traditional business knowledge but within an entrepreneurial context. Hills and Morris, as a fundamental part of a successful entrepreneurial focused business text, suggest new venture creation, risk-taking, innovation, and proactive planning and management. Furthermore, they argue that the textbook should emphasise the actual process of implementation as well as analysis and strategy development. From a broader perspective, Hills and Morris emphasise that there is also a need for examining the ways educators think about and communicate their subject matter. The issues that need to be considered are defined as:

- “Describe business as a fundamentally entrepreneurial undertaking whose purpose is to create value by bringing together unique bundles of resources to exploit opportunities.

- Focus less on planning as an adaptation to a changing environment, emphasising instead its role as a vehicle for effecting change.
- Discard traditional and simplistic approaches to market segmentation, which ignore market dynamics. Instead, develop creative ways for classifying customers based on their responsiveness to marketing variables.
- Focus on product/service design and development as the ultimate source of customer value, while accentuating the core, tangible, and augmented dimensions of a company's offerings.
- Downplay cost-based formulas in discussions of pricing, stressing instead ways in which price can be customised to reflect the value perceptions of users.
- Demonstrate the need for managers to set formal and measurable innovation goals on an annual basis, including numbers and types of new product/service ideas, new user applications, new market segments, new promotional vehicles, and new forms of distribution (Hills & Morris 1998)."

The viewpoint of Hills and Morris was shared by Kent (1990). However, a criticism espoused by Kent (1990) was that many courses in entrepreneurship education are presented to traditional undergraduate and graduate students. Most of these course offerings are found in schools of business and tend to be located in departments of management or some associated fields such as marketing and finance. Consequently, many aspects of entrepreneurship are ignored. Kent

further argues that courses in entrepreneurship and economics seem to be lacking. He proposes that this may be due to the failure of economists to adequately integrate entrepreneurship into economic theory. This weakness is reflected in the failure of many entrepreneurship programs to provide content that enables the student to determine the economic viability of a proposed business venture. This point of view is shared by many authors who argue that the process of determining a proposed business venture's viability should, in fact, be taught as a separate process in the framework of a business feasibility study, in which economic viability plays a pivotal role (Kao 1995b; Hoagland & Williamson 2000; Truitt 2002; Blenker et al. 2004).

Equally Fiet (2001) asserts that textbooks on entrepreneurship contribute to the program deficiencies because they consist largely of theory and discussions of the functional areas of a business. Many students have already learned about these functional approaches in their introductory courses. So, not only are these functional level treatments repetitious, but they only provide limited outcomes toward graduate skills associated with the discipline. Alternatively, Kent (1990) argues that the purpose of educators in entrepreneurship is to assist students to acquire skills in theory-based competencies (TBC). He further argues that the most effective method for accomplishing this objective is to practice specific skills until they become competencies. Kent (1990) advocates TBC for university skills based programs such as entrepreneurship, as being preferable to a lecturer who delivers information from a textbook, or a tutorial delivered in a tedious, predictable manner. However, Fiet (2001) makes the important point that for the TBC to be

effective, the resources and text need to be structured in such a manner as to provide practice related resources.

White (2004) and Ndahi (2005) have also identified as another key issue the actual delivery of an educational experience, its pedagogy, text design and accessibility of learning materials. Digital learning resources and other non-traditional delivery mechanisms are presented by White (2004) as value adding tools. Previous research also corroborates the importance of online accessibility of learning resources and practical entrepreneurial tools, in light of the diverse nature of students seeking education in entrepreneurship (Breen & Bergin 2000; Bodomo et al. 2003; Collins et al. 2004). The issue of centralised learning resources is common to many professional or vocational related programs such as entrepreneurship, and the role of digital texts and learning material is assuming a more pivotal function (Armitage, Bryant, Dunnill, Hammersley, Hayes, Hudson & Lawes 1999; Johnson, Maddux & Lui 2000). Examples of these entrepreneurial tools were cited as those that assisted in the creation, development and articulation of the business concept, such as, a business feasibility study, a business plan and business analysis templates.

Of significance for universities is whether or not sufficient evidence exists to indicate if digitally resourced professional education programs provide an opportunity for them to engage non-traditional students (Johnson et al. 2000). The House of Representatives Standing Committee on Education and Training has also identified the relevance of digitally resourced education programs. Its members asserted that a greater vocational enterprise skills outcome is required and that this is often a reflection on the flexibility and accessibility of the learning

resources (Bartlett 2004). From a similar viewpoint, Weigel (2002) argues that digital teaching texts should be designed to meet the needs of the user, and in the case of professional or vocational education, be purposeful in content. Of central importance for education programs in entrepreneurship, is that their supporting resources and texts must ideally be accessible online, consist of straightforward content, and provide a diversity of content that reflects the entire program, rather than a single learning outcome (Rossett & Sheldon 2001; Weigel 2002; Kravitz 2004).

The findings of a United States tertiary survey conducted in the late eighties are also important. The survey examined over 200 colleges and universities that offered courses in entrepreneurship. The study determined that although seventy percent of the respondents rated their texts satisfactory, they indicated a need for improvement in supplementary text materials related to entrepreneurial processes. The findings of the study were in general, that texts on entrepreneurship would be enhanced by including more practical examples, less theoretical discussion, and by adopting a higher level approach, which would be more challenging to the students (Klatt 1988). Another recognised study by Hess (1987) surveyed small business owners to determine their activities and education needs. These results were then compared to the topics covered in ten major small business/entrepreneurship texts. The study determined that the majority of texts lacked focus toward analysis, marketing and selling. In addition, the study also considered that too much emphasis was given to inventory management, finance, and accounting. The findings of the study indicated further that many texts were too theoretical, and did not promote accepted commercial practices. The study

concluded that most courses in entrepreneurship followed the material covered in textbooks, and subsequently, reflected their weaknesses (Hess 1987).

Of equal importance in higher education, is the pedagogical context of the entrepreneurial program. Hills and Morris (1988) assert that entrepreneurship pedagogy can be considered as one with an unstructured and action-oriented experience designed to equip the students with the skills necessary to apply the practices of the entrepreneur, as well as gaining a theoretical foundation in new venture creation. Truitt (2002) implies that students should be required not only to acquire those practical skills associated with business planning, but also pursue the development of creative practices such as feasibility studies, which focus on concept development. Such variations are based on evidence as to the different types of students who take entrepreneurship courses, and the strength of their behavioural entrepreneurship intentions (Kent 1990). The philosophy that places creativity at the heart of entrepreneurship academic design has in recent times gained international acceptance, and is gaining recognition as best practice in both professional and tertiary programs.

Alternatively, Ducheneaut's (2001) viewpoint is that creative behavioural skills are mainly acquired during childhood, and that for entrepreneurial creation to develop, entrepreneurial awareness must be fundamentally rooted in the life period preceding entry into higher education. With this in mind, Ducheneaut (2001) asserts that university education in entrepreneurship faces the problem of on what pedagogical context such programs should be based. His solution is to consider programs with two main objectives, namely:

- “to detect students with a high degree of entrepreneurial awareness and potential; and
- to give training which reveals these characteristics, consolidates them, and completes them through the acquisition of technical skills, which reinforce the chances of successful creation and, subsequently, the successful development of businesses.”

As part of his proposal Ducheneaut (2001) asserts that imparting entrepreneurial knowledge requires an interactive pedagogy, leaving the initiative to the student. Ducheneaut (2001) suggests that group work, problem solving, research, and methodology, are fundamental ingredients in a personalised pedagogy of assuming responsibility and learning leadership, and, as such, need to be central to any course design. Similarly, Ulrich (2001) argues that the entrepreneur tends to prefer an active learning style, and, therefore, recommends that it would be best to utilise the pedagogical techniques, which are best suited to such learning styles.

Finally, a common issue that many programs in entrepreneurship need to address is who should teach entrepreneurship. Although it is generally recognised there are unique requirements for entrepreneurship courses as compared to other business courses, no consensus has emerged amongst academics as to whether or not one must be (or have been) an entrepreneur in order to teach effectively (Plaschke & Welsch 1990; Hills & Morris 1998; Nieuwenhuizen & Van Niekerk 2001; Streeter et al. 2002) Many universities who have experienced difficulty making the transition to delivering entrepreneurship programs, have created the

position of Entrepreneur-in-Residence so as to combine both academic and practitioner perspectives (Grant 1998).

A key fact, however, is that nearly all entrepreneurship programs will be composed of selective courses, whether taken at the undergraduate or the graduate level. At its most basic level, this means that entrepreneurship courses must fit into an existing curriculum (Ronstadt 1990; Hills & Morris 1998). Such accommodation is seldom easy to achieve politically or administratively, particularly when talking about a new program and multiple courses. A best fit scenario is considered optimum where the course represents best practice in entrepreneurship education, but does so acknowledging available resources and demand (Ronstadt 1990).

2.6 Entrepreneurship Education An International Perspective

A number of international authors have argued that higher education should have an important role because of its benefits to the small business sector and economy (Kelmar 1988; Dolton & Makepeace 1990; Plaschke & Welsch 1990; Kao 1995b; Loucks et al. 2000; Streeter et al. 2002; Volkmann 2004). This viewpoint is extended by Dolton and Makepeace (1990), who through an econometric model of self employment for UK higher education graduates determined that students undertaking management and professional studies such as entrepreneurship education had a higher incidence of self employment. Evidence suggests that entrepreneurship educational programs are now becoming accepted as main stream disciplines within secondary, adult, and community educational institutions (Loucks et al. 2000; Streeter et al. 2002; Kirby 2003; Volkmann 2004).

An international trend that has emerged for entrepreneurship education is to consider it a lifelong learning process, bridging secondary, community and adult education (Henry et al. 2003; Kuratko 2003; Ashmore 2004). Arising from such a philosophy, many regional, national, and industry E&BI standards have been established (Solomon et al. 2002; Streeter et al. 2002; Ashmore 2004; Bell et al. 2004; Hayward 2004). These standards support a learning framework, which encourage student learning through progressively more challenging educational activities and experiences, that will enable them to develop the insight needed to discover, create, and manage entrepreneurial opportunities (Kuratko 2003). Evidence suggests that most of these standards reflect characteristics relative to their regional economic environment (Streeter et al. 2002; Henry et al. 2003; Ashmore 2004).

The National Content Standards for Entrepreneurship Education (NCSEE) are promoted by the United States based Consortium for Entrepreneurship Education. The standards support an entrepreneurship learning philosophy centred on three major categories, which advocate fifteen key standards. The three categories of learning focus on:

- entrepreneurial skills which espouse the unique traits, behaviours and processes that differentiate an entrepreneur from an employee or manager;
- business ready skills which equip the student with business, or entrepreneurial knowledge and skills, that are prerequisites for the study of entrepreneurship; and,

- business function skills, which promote general business capability to perform activities for creating, evaluating, starting, and running a business (Ashmore 2004).

The entrepreneurial skills are defined by the NCSEE as those, which promote students knowledge in the unique entrepreneurial practices which facilitate:

- the generation of ideas, recognition of opportunities, and the determination of the feasibility of ideas;
- the development of the business concept, the plans for the venture, the determination of resource needs within the business plan and the identification of value adding strategies such as the protection of intellectual property;
- the identification and acquisition of the financial, human, and capital resources needed for the venture start-up;
- the operation of the venture and utilisation of resources to achieve its goals and objectives; and,
- the harvesting of the future wealth of the venture (or, alternatively, the contingency options in the demise of the venture) (Ashmore 2004).

In addition to the entrepreneurial practices, the standards support an understanding of individual entrepreneurial traits and behaviours associated with successful entrepreneurs (Ashmore 2004). Similarly, the National Business Education Association through their National Standards for Business Education (NSBE), assert that entrepreneurship education should focus on providing the student with the knowledge to recognise a business opportunity, starting a business based on the recognised opportunity, and operating and maintaining that business. The NSBE recognise that enabling students to understand the unique characteristics associated with entrepreneurs is a critical first step. The NSBE further argues that entrepreneurship is a natural fit for business education, because entrepreneurship integrates the functional areas of business-accounting, finance, marketing, and management within the legal and economic environments in which a new venture operates (Lammers 2001). Solomon, Dufy and Tarabishy (2002) share similar sentiments in that they recognise that to enable students to adopt the business practices of an entrepreneur, they must first understand what makes an entrepreneur.

The NCSEE business ready skills, which are designed to equip students with business, or entrepreneurial, knowledge and skills, focuses on providing students with a framework of broad understanding of business practices. The standards promote the specific education of business concepts, business activities, business communication, resource management, business technology, economic systems, international concepts and financial literacy. The learning concepts are holistic in nature, and are more focused on providing a foundation for future learning than developing key outcomes (Ashmore 2004). In a contrasting approach, the NSBE

supports are more focused framework that goes directly to skills development in the core business areas that are aligned with the entrepreneurial process. The NSBE supports both recognised understanding, competency, and performance expectations that should apply to each student. The NSBE standards reflect learning outcomes in the following core areas of:

- entrepreneurship and entrepreneurial opportunities,
- marketing,
- economics,
- finance,
- accounting,
- management,
- global markets,
- business law, and,
- business planning (Lammers 2001).

Although the NSCEE supports similar learning outcomes in their business function skills standards, they place greater emphasis on the entrepreneurial application of traditional business tools, such as accounting, marketing and management. The NSCEE identify business creativity, concept development, start-up, business planning and management, as important broader learning outcomes which facilitate individual students in enterprise career paths (Ashmore 2004). The broader evidence suggests, that the approach adopted by the NSCEE of promoting traditional business knowledge within a entrepreneurial focused

learning framework, is a widely accepted practice (Loucks et al. 2000; Solomon et al. 2002; Kuratko 2003). The evidence further suggests, that the NSCEE philosophy is particularly prevalent in university entrepreneurship programs (Solomon et al. 2002; Streeter et al. 2002; Volkmann 2004).

Entrepreneurship, and to a lesser degree business innovation, are now being taught internationally at tertiary level by many colleges and universities (Streeter et al. 2002; Volkmann 2004). Research indicates that at many institutions, academic majors in entrepreneurship have been initiated. The consensus amongst different tertiary entrepreneurship curricula, is that the study and promotion of entrepreneurship should be based on some rationale as to why entrepreneurship is important to the economic well being of society (Henry et al. 2003; Kirby 2003; Bell et al. 2004). One popular universal hypothesis is that entrepreneurship is a creative process, that entrepreneurial activity stimulates innovation, and that economic growth depends upon the existence of an innovative environment. Subsequently, the issue faced by many business schools is that mainstream business education does not exist within a creative environment, but is rather subject to the rigours of accepted business practice (Kirby 2003). If this premise holds true, then creativity, innovation and the pursuit of commercial opportunity, should form the cornerstones of the E&BI curriculum.

Another significant issue that has emerged in the light of previous studies, is that the diversity of aims and course content between universities, secondary schools and community institutions does lead to differences in learning emphasis within different programs (Henry et al. 2003; Kirby 2003; Newton & Hennicks 2003; Bell et al. 2004; Nelson 2004). From an international perspective, Bell et al. (2004)

argue that despite the growth in the number of entrepreneurial programs on offer by universities, their primary focus tends to be on the study of entrepreneurship in a domestic market setting. Also of significance, is the shift in the late nineties towards the notion that entrepreneurial education was no longer the privy of mature age students, but was also suitable for young students. The Kauffman Centre for Entrepreneurship Leadership defined the convergence of the following four factors within the United States:

- “a large number of students wanting to become entrepreneurs;
- entrepreneurs being recognised as an essential part of the economy;
- students correctly rating their knowledge of entrepreneurship as poor, and
- students expressing a desire for more entrepreneurship education (Clow 1998).”

Alternatively, from the perspective of the European Union (EU), entrepreneurship education should not only focus on the creation of new economic entities centred on a niche product/service, but also address entrepreneurial behaviour, in particular, in terms of reinforcing innovation, creativity, flexibility and the capacity to respond to economic opportunities (Gravan & O’Cinneide 1994). Gravan and O’Cinneide (1994) support the European consensus that although entrepreneurship education should reflect the factual knowledge of the discipline, it should also provide students with practical skills achieved through the stimulation of new ventures, the success of those ventures, and the increasing capacity of the entrepreneur to pursue even greater success. Accordingly, the most commonly recognised objectives of entrepreneurship education and training programmes are:

- to acquire knowledge germane to entrepreneurship;
- to acquire skills in the use of techniques, in the analysis of business situations, and in the synthesis of action plans;
- to identify and stimulate entrepreneurial drive, talent and skills;
- to undo the risk-adverse bias of many analytical techniques;
- to develop empathy and support for all unique aspects of entrepreneurship;
- to devise attitudes towards change; and,
- to encourage new start-ups and other entrepreneurial ventures.

In more recent times, entrepreneurship education has been recognised by the EU as a critical SME economic driver, and a comprehensive education action plan has been developed to formalise curriculum standards and programs. Although much of the focus is toward primary and secondary education, it highlights the role of tertiary institutions in facilitating careers in entrepreneurship for graduates (Enterprise Directorate General 2004). Equally, Onstenk (2003) argues that there is a partition between vocational and tertiary entrepreneurship education. He believes that although such vocational educational courses or modules exist, they focus on teaching key skills and entrepreneurial competencies. In contrast, higher education curricula promote innovations in management and align entrepreneurship-oriented courses with multidisciplinary students toward starting their own business. The role of higher education institutions in the EU is gaining prominence in entrepreneurship education, and although there is a clear

distinction from vocational education, the tertiary curriculum is focused with reference to purposeful theory and practical skill development (Gravan & O'Conneide 1994; Onstenk 2003; Enterprise Directorate General 2004).

However, this contrast between vocational and tertiary entrepreneurial education raises the issue as to the distinctiveness of the programs, the nature of entrepreneurial knowledge, and its application to practical outcomes and economic concerns. Hayward (2004), in a review of Scottish universities, determined that the issue is not unique to entrepreneurship education, but is one faced by many secondary and vocationally oriented professional courses. Similarly, Henry et al. (2003) and Kirby (2003) argue that maintaining the pedagogical focus of entrepreneurship education toward its practical application for profitable ends, whilst also pursuing academic rigour, requires a fundamental review of the business of teaching entrepreneurship. It is argued by Streeter et al. (2002) that entrepreneurial knowledge was intended to be seen by students as being different from other types of knowledge more usually associated with a university, and was to be acquired through alternative approaches to teaching and learning than those normally associated with university learning.

2.7 Enterprise Education; An Australian Perspective

Within Australia, enterprise education focuses on teaching students from a small to medium enterprise (SME) view point about entrepreneurial and innovative business practices (Meredith 2001; Henry et al. 2003; Bell et al. 2004; Nelson 2004). It is considered learning directed towards developing in young people those skills, competencies, understandings and attributes, which equip them to identify, create, initiate and successfully manage personal, community, business and work opportunities, including working for themselves (Nelson 2004; Queensland Government 2004). Entrepreneurship education provides students with learning outcomes that enable them to develop the insight needed to ascertain and create entrepreneurial opportunities (Henry et al. 2003; Ashmore 2004). Business enterprise education not only allows students to share in practical applications of their studies, but also contributes to a superior number of graduates who are better motivated, more innovative, and more able to capitalise on business opportunities (Henry et al. 2003; Nelson 2004).

The current thinking in justifying the delivery of enterprise education by universities, is that globalisation is changing the manner in which Australians do business. The new technology driven economy is breaking the mould of traditional business, and the new business participants will need to be equally entrepreneurs as well as managers. A recognised deficiency in Australian tertiary business education, is that it focuses heavily on business management education and fails to embrace enterprise and entrepreneurial education (Breen & Bergin 2000; Bartlett 2004; Rolffe 2004). The Standing Committee on Education and Training

defined entrepreneurship as the identification or recognition of market opportunity and the generation of a business idea (service or product) to address that opportunity. The concept further identified as entrepreneurial processes, the management of resources in the face of risk to pursue an opportunity and the creation of an operating business to implement the opportunity (Bartlett 2004).

From an historical point of view, although there has been limited development since the early 1990s in small business and entrepreneurship education, when compared to international trends, Australia has not achieved prominence (Breen & Bergin 2000). Despite federal government recommendations for Australian universities to include entrepreneurship studies within their programs, there are few structured small business and entrepreneurship courses on offer (Perry, Breen & Clayton 1999). In Australia, formal business education relating to small business concentrated on the start up, management and operation of small firms. These are the fundamental themes of many Australian textbooks, which fail to adequately consider the role of entrepreneurship practice and creativity (Rolffe 2004).

There have been a number of Australian studies regarding small business and entrepreneurship education. Rolffe (2003), in an examination of these studies, presents a case for the need for universities to provide studies in entrepreneurship and small business. He asserted that the formal recognition of the role of universities in entrepreneurship education was defined in the findings of the Commonwealth Tertiary Education Committee. The study recommended that universities offer degree courses in business/commerce, which should include units that are related to small business and entrepreneurship, because tertiary

students should consider entrepreneurship and self employment as career alternatives (Meredith 1984).

Similarly, the findings of The Beddall Inquiry (1990), Employment and Skills Formation Council (1994), and the Karpin Inquiry (1995), confirmed that there was a need for universities to equip graduates with small business and entrepreneurial skills in order to pursue employment and wealth creation opportunities. Rolffe (2003) suggests a broader significance for the findings of the Karpin Inquiry, which concluded that primary, secondary, vocational and tertiary students need to be exposed to the value of enterprising and entrepreneurial behaviour, with the view to equipping future small business owners and managers. However, in contrast to these findings, as late as 1999 a number of researchers described as limited the actual performance of Australian universities in providing entrepreneurial and SME focused education programs (Kelmar 1988; Perry et al. 1999).

The latest extensive examination of small business and entrepreneurship university education determined that only ten percent of Australian universities offered complete small business or entrepreneurship courses. The study also revealed that many of the universities only taught small business or entrepreneurship as part of mainstream business courses. Although there were a number universities who offered related postgraduate programs, their focus on entrepreneurship was limited (Breen & Bergin 2000). Breen and Bergin further argued, that although there had been considerable growth in small business and entrepreneurship education since 1995, Australia is still weak in comparison to international trends. The recommendations of the Breen and Bergin study asserted that for entrepreneurial education within Australian universities to

develop, small business graduate career opportunities had to be recognised, future business programs needed to be aligned with entrepreneurial practice, and large organisational management should not be the sole focus of education in entrepreneurship. Expressing a similar point of view, Kelmar (1988) and Rolffe (2003) argue that small business management, entrepreneurial practice and planning are recognised as important themes in Australian program design.

Although in recent times entrepreneurship courses have gained popularity in Australian universities, it appears that their program curriculum is often still focused toward larger organisational management rather than toward SME, creativity and wealth creation. Rolffe (2003) recommended that Australian university entrepreneurship courses should be designed to simulate business opportunity recognition, highlight enterprise and wealth creation, and to present the environment of small business and its stakeholders, including employers and employees. More specifically, Rolffe (2003) argued that key elements of the course should reflect the enterprise start up, small business management, technical aspects of financing and marketing and the role of entrepreneurs, entrepreneurship and innovation. Although Rolffe (2003) presents precise recommendations, he did so recognising the need for individual universities to design their programs to best suit their learning environment and individual student needs.

Apart from Rolffe's (2003) findings, there was no other significant evidence that entrepreneurship, enterprise, or small business course standards or guidelines have been established within Australia. Worthy of note, is that in the United States,

where entrepreneurial and enterprise education standards exist, universities when compared to their Australian counterparts, have significantly stronger small business education and entrepreneurship courses (Williams 1991). The issue which needs to be addressed by Australian universities, is that to be internationally competitive in entrepreneurship education, they must make a pedagogical shift toward a more action orientated learning environment, which embraces the entrepreneurial process, creativity, and purposeful business theory (Jones & English 2004).

2.8 Summary

Entrepreneurship is considered to be the process of doing something new (creative) and something different (innovative) for the purpose of creating wealth for the individual and adding value to society (Drucker 1985; Kao 1995b). The fundamental activity of entrepreneurship is new venture creation, and, as such, represents a significant contribution to economic development. The foremost step in any entrepreneurial venture creation process, is the recognition of the opportunity by the entrepreneur (Ronstadt 1984; Wickham 2004). From an entrepreneur's perspective, innovation is the key driver of competitive advantage, growth, and profitability (Drucker 1985).

Entrepreneurship education plays an important role in Australia in the preparation of the entrepreneurs and SME managers of tomorrow. Entrepreneurship education represents a more purposeful business education, which holistically links theory to enterprise practice (Carland et al. 1983; Grant 1998; Henry et al. 2003; Collins et al. 2004). Within Australia, enterprise education focuses on teaching students from a small to medium enterprise (SME) view point about entrepreneurial and innovative business practices (Meredith 2001; Henry et al. 2003; Bell et al. 2004; Nelson 2004). Entrepreneurship education provides students with learning outcomes that enable them to develop the insight needed to determine and create entrepreneurial opportunities, evaluate such business concepts, and take commercial advantage of such opportunities (Henry et al. 2003; Ashmore 2004).

Educational programs dealing with entrepreneurship must first be consistent with and reflective of the mission of the institution providing such programs. At the

same time, they must also address the needs of graduates who are seeking self-employment opportunities. In teaching the next generation of entrepreneurs, it is important to note that entrepreneurship education has at least two broad dimensions: awareness, and skills (Rolffe 2004). Entrepreneurship programs are designed to support learning objectives based on an integrated understanding of business principles and a hands on approach, which provides a logical structure to the entrepreneurial process, in order to employ business idea generation, start-up of the business venture, establishment of that venture, enterprise growth, expansion and diversification (Carland 1983).

Prior studies recognised that entrepreneurs require different management tools to existing business practitioners, so that they may apply and employ innovative, creative, systematic, and purposeful management approaches (Henry et al. 2003; Drucker 1985). A recognised need also exists for individual entrepreneurs to have the skills to make decisions regarding the commercial and economic viability of their business ventures (Carland et al. 1983; Kao 1995b; Truitt 2002; Baxter 2003; Collins et al. 2004). To accomplish this, the entrepreneur needs to possess an understanding of the both the theory and actual operational practices associated with key enterprise disciplines such as marketing, finance, technology and operations (Hills & Morris 1998; Pyke 1998; Henry et al. 2003). Equally, Feit (2001) asserts that a good entrepreneurship course requires the practical application of purposeful theory, but with due recognition accorded to the actual application process .

From a historical viewpoint, in Australia there has been limited development since the early 1990s in small business and entrepreneurship education. When compared to international trends, Australia has not achieved prominence in this arena (Breen & Bergin 2000). Although in recent times entrepreneurship courses have gained popularity in Australian universities, it appears that their curriculums are often still focused toward larger organisational management rather than toward SME, creativity, and wealth creation Rolffe (2003). Australian universities have significantly weaker small business education and entrepreneurship courses than their international counterparts (Williams 1991). The issue confronting Australian universities is that to be internationally competitive in entrepreneurship education, they must make a pedagogical shift toward a more action orientated learning environment, which embraces the entrepreneurial process, creativity, and purposeful business theory (Jones & English 2004)

Entrepreneurship, and to a lesser degree business innovation, have become accepted fields of tertiary education. While this may be true, McMullan & Gillin (2001) have correctly identified that if universities have been offering entrepreneurship courses for some time, they have been doing so within a traditional business framework. More recently, academia has come to accept that entrepreneurship education should relate to the entrepreneurial process, must be relative to the economic environment of the proposed knowledge application, and reflect the essential tools and commercial processes allied with the core entrepreneurial activities associated with new venture creation (Sandercock 2001; Streeter et al. 2002; Henry et al. 2003; Kirby 2003; Collins et al. 2004). This view

point is shared by many authors who argue that, a key entrepreneurial learning objective is to provide students with the capability of determining a proposed business venture's viability through the application of a business feasibility study, in which economic viability plays a pivotal role (Kao 1995b; Hoagland & Williamson 2000; Truitt 2002).

Given the increasing acceptance of entrepreneurship education into mainstream programs, academics argue that developing a entrepreneurial text is the first area of emphasis in recognising the design of the curriculum and providing relevance of material (Grant 1998; Hills & Morris 1998; Breen & Bergin 2000; Collins et al. 2004). The issue for many entrepreneurial curriculums is that a suitable text will vary not only from the desired student learning outcomes, but is also affected by the framework of the institution's broader business program (Ronstadt 1984; Plaschke & Welsch 1990; Grant 1998). Of equal importance is the research of Breen and Bergin (2000), that determined for entrepreneurial education within Australian universities to develop, the recognition of small business graduate career opportunities must occur, and future business programs must be aligned with entrepreneurial practice and not solely focus on the management of large organisations. Kelmar (1988) and Rolffe (2003) corroborate this view and argue that small business management, and entrepreneurial practice and planning are recognised as important themes in Australian program design.

In conclusion, this literature review has provided a comprehensive examination of the relevant literature on entrepreneurship, business innovation and enterprise education. The review has identified the current framework of tertiary entrepreneurship education in Australia and drawn a comparison as to its quality

against international practice. The outcomes of the review have provided the foundation for the development of a suitable framework for the development, design, and digital delivery of an entrepreneurship and business innovation focused teaching text.

The next chapter, Chapter Three, provides an overview of the research scope and methodology. A case is made for the basis on which the research was conducted, as well as the appropriateness and reliability of the research.

Chapter Three – Research Scope and Methodology

3.1 Introduction

This chapter provides an overview of the research scope and methodology. The research paradigm in terms of the ontological and epistemological perspective is discussed. The research undertaken in this study has also been examined in the context of the field of study and my participatory role as the researcher. A case is made for the selection of the constructivist/interpretive paradigm with a qualitative approach.

As the thesis predominantly relates the research and development of the knowledge required for, and subsequent publication of an E&BI focused teaching text, this chapter will also examine the impetus for the study. My research perspective, and the conceptual framework for the originality and the quality of the research will also be discussed.

3.2 Conceptual Definitions

With all research it is imperative that the research framework and terminology be clearly defined. This not only provides greater clarity for the reader, but also from a scholarly viewpoint, assists in articulating to the quality and reliability of the research.

3.2.1 Methodology

The term methodology is used to describe what the activity of research is, how to proceed, how to measure progress, and what constitutes success. More importantly, from a scholarly perspective, it forms a research rigour that is capable of being followed by another person not involved in the research, to determine the value of the research (Perry 1994; Blaxter et al. 2001).

3.2.2 Paradigm

A paradigm is a generally accepted perspective of a particular discipline at a given time. Denzin and Lincoln (2000) define a paradigm as, “a basic belief in the world view that guides the researcher in their choice of research methodology”. A paradigm forms a generally accepted model of how ideas relate to one another, and how a conceptual framework within scientific research is carried out (Blaxter et al. 2001). This model serves as the basis of a methodology or theory in the philosophy of the research.

3.2.3 Constructivist Paradigm

A constructivist paradigm rests on the notion that people learn best by actively constructing their own understanding. The fundamental beliefs underlying the paradigm are that all knowledge is constructed through a process of reflective abstraction; cognitive structures within the researcher facilitate the process of knowledge creation, and cognitive structures in individuals are in a process of constant development (Denzin & Lincoln 2000). Within the constructivist paradigm,

the accent is on the researcher who interacts with his or her environment, and thus gains an understanding of its features and characteristics. The researcher constructs his own conceptualisations and finds his own solutions to problems, mastering autonomy and independence and, ultimately, creating knowledge (Dooley 2001). In constructivist thinking, research is affected by the beliefs, attitudes and interpretations of the researcher (Denzin & Lincoln 2000; Blaxter et al. 2001; Dooley 2001). The constructivist researcher has the capacity to appreciate how ideas can relate to each other and build on prior knowledge, and sufficient awareness to construct new knowledge and understanding from the authentic experience (Denzin & Lincoln 2003).

3.2.4 Critical Interpretative Approach

A critical interpretative approach is one whereby the researcher is deemed part of the research process and endeavours to uncover meanings and gain an understanding of broad interrelationships in the context they research (Hessler 1992; Ticehurst & Veal 2000; Dooley 2001).

3.2.5 Ontology

An ontology is an explicit specification of a conceptualisation. A conceptualisation is an abstract, simplified view of the world that we wish to represent for some purpose. Ontologies therefore provide a vocabulary for representing and communicating knowledge, and a set of relationships that hold among the terms in that vocabulary (Denzil & Lincoln 2000).

3.2.6 Epistemology

Epistemology refers to the branch of philosophy concerned with the nature of knowledge, its scope, possibilities and general basis (Honderich 1995). Epistemology is the study of how we know what we know. This branch of philosophy studies the origins of knowledge. From a scholarly perspective, epistemology considers to what extent knowledge existed before the experience, to what extent is knowledge universal, by what process does knowledge arise, is knowledge best conceived in parts or wholes, and to what extent is knowledge explicit (Denzin & Lincoln 2000).

3.2.7 Participatory Action Research

Participatory action research can be defined as collective, self-reflective enquiry undertaken by participants in social situations in order to improve the rationality and justice of their own environment. Research using participatory action occurs in four moments of action research, namely reflection, planning, action and observation. These research moments exist interdependently and follow each other in a spiral or cycle (Denzin & Lincoln 2000).

3.2.8 Quantitative Research

Quantitative research is the systematic collection of numeric data. This form of data collection usually involves sampling techniques and sizes that enable the analyst to make predictable conclusions (Denzin & Lincoln 2000). Quantitative research seeks to establish facts, make predictions, and test hypotheses that have

already been stated. A large part of quantitative research is statistical. Statistical analysis allows the data to be isolated in context, measured and understood (Denzin & Lincoln 2000; Dooley 2001).

3.2.9 Qualitative Research

Qualitative research is the collection of in-depth, non-numeric data, traditionally collected face-to-face in an unstructured manner (Denzin & Lincoln 2000). This form of research is primarily concerned with obtaining and understanding consumer attitudes and motivations. Qualitative research has a non-positivist perspective, that is, a theory that holds the view that the world itself is made up of different people with different perspectives, and, therefore, has many different meanings and contexts. Qualitative researchers use mainly non-numerical data such as observations, interviews, interpretation, and other more discursive sources of information (Denzin & Lincoln 2000; Blaxter et al. 2001).

3.3 Research Objective

The premise for this research is that the increased demand for E&BI knowledge is toward a greater balance between purposeful theory and actual operational entrepreneurial practices. The objective of the research was to discover knowledge to support the development of a framework and content for an entrepreneurship and business innovation focused teaching text. The study has endeavoured to articulate the knowledge identified to support a text publication, which is:

1. representative of international E&BI good practice,
2. suitable for use by secondary, community and adult education institutions within Australia, and,
3. designed for delivery to both a digital and print audience.

3.4 Research Approach & Epistemology Justification

Entrepreneurship and business innovation is a relatively young discipline (Kuratko 2003). Australia has no formalised standards of entrepreneurship, and, thus, no definitive epistemology of knowledge in this field exists. Entrepreneurship education represents a more purposeful business education which holistically links theory to enterprise practice (Carland et al. 1983; Grant 1998; Henry et al. 2003; Collins et al. 2004). Within Australia, enterprise education focuses on teaching students from a small to medium enterprise (SME) view point about entrepreneurial and innovative business practices (Meredith 2001; Henry et al. 2003; Bell et al. 2004; Nelson 2004).

The issue confronting Australian universities, is that to be internationally competitive in entrepreneurship education, they must make a pedagogical shift toward a more action orientated learning environment, which embraces the entrepreneurial process, creativity and purposeful business theory (Jones & English 2004). The often intangible and variable conceptual nature of E&BI is such that the constructivist paradigm was selected for the ontological approach. The philosophy of ontology deals with the problem of the ultimate nature of things (Ticehurst & Veal 2000). While the ontology is quite pronounced, it is also

important to consider the epistemological, the research issue, to determine which style of research paradigms are most suitable.

Educational programs dealing with entrepreneurship must first be consistent with, and reflective of, the mission of the institution providing such programs, but must also address the needs of graduates who are seeking self-employment opportunities. Prior studies recognised that entrepreneurs require different management tools to standard business practitioners. To achieve this, entrepreneurship education needs to facilitate an understanding of both the theory and actual operational practices associated with key enterprise disciplines (Hills & Morris 1998; Pyke 1998; Henry et al. 2003). Equally, Feit (2001) asserts that a good course in entrepreneurship requires the practical application of purposeful theory but with due recognition of the actual process of its application. With the increasing acceptance of entrepreneurship education into mainstream programs, academics argue that developing a entrepreneurial text is the first step in recognising the design of the curriculum and providing relevance of material (Grant 1998; Hills & Morris 1998; Breen & Bergin 2000; Collins et al. 2004).

The issue for many entrepreneurial curriculums is that a suitable text may not only depart from the desired student learning outcomes, but is likely to be affected by the framework of the institutions broader business program (Ronstadt 1984; Plaschke & Welsch 1990; Grant 1998). Of equal importance is Breen and Bergin's research (2000) that determined that for entrepreneurial education within Australian universities to develop, the recognition of small business graduate career opportunities must occur, future business programs need to be aligned to

entrepreneurial practice and not solely focus on the management of large organisations. In bridging the divide between entrepreneurial theory, practice and educational delivery, participation by the researcher, particularly toward curriculum and content knowledge development, is considered essential (Riding et al. 1995; Douglas 2004).

Of further importance, is that given the emerging nature of the E&BI discipline, I was required through my own conceptualisations to develop solutions to the problems. Although consideration was given to adopting the grounded theory approach, which Douglas (2004) considers to be well suited to entrepreneurship research, it was abandoned, as it did not suit the traditional constructs associated with education. A constructivist paradigm is a more suitable approach, as it allows the researcher to bring new constructs through their own meanings and experiences (Denzin & Lincoln 2000; Dooley 2001). More importantly, from the perspective of curriculum and text development, the constructivist paradigm allows the researcher to address a real-life context and discover best fit solutions (Plaschke & Welsch 1990; Riding, Fowell & Levy 1995; Johnson et al. 2000; Cronholm & Goldkuhl 2004). The research objective, by its very nature, necessitated my participatory role as the chief researcher.

Given the research objective, a critical interpretive approach was utilised. A constructivist paradigm can be associated with qualitative methods of research. A qualitative research approach ideally requires long periods of fieldwork, so that the researcher not only interacts with participants but also understands them, their culture, behaviour, attitudes and background (Denzin & Lincoln 2000). In this

regard, I am an academic who has been actively employed within the E&BI academic environment for over three years during which the research occurred. The qualitative research approach is considered well suited to the research objectives, as it is significantly participatory based, and outcomes have a greater reliance on process (Ticehurst & Veal 2000; Dooley 2001).

Given the correlation of the constructivist and interpretive paradigms, a qualitative approach was adopted for the research methodology. Consistent with the chosen epistemology of this research, and my subsequent interpretative participation in the study, I consider it important that my perspective be understood.

3.5 Researchers Perspective

I am a university lecturer with the Murdoch Business School at Murdoch University, Western Australian. I have over 20 years of combined commercial management and academic experience. A primary focus of my duties at the Murdoch Business School has been the coordination and delivery of educational programs in entrepreneurship, business feasibility, business planning, and business innovation. Resulting from the development of a new academic program proposal, it was ascertained that current academic E&BI resources and teaching texts were not effectively aligned with good practice, and to a lesser degree, lacked pedagogical and digital cohesiveness.

Being unable to locate an Australian focused teaching text that suited the needs of the new academic program, as well as reflected good practice in E&BI education, a teaching text titled, "Entrepreneurship and Business Innovation" was developed.

The text content was developed both through formal research, a consultative process with fellow academics, and from extensive utilisation of the E&BI knowledge and teaching resources I authored.

Accordingly, the thesis predominantly consists of knowledge discovered through research in support of the development of the E&BI focused text. The thesis further articulates my distinctive contribution to the knowledge of E&BI, and provides coherence as to its scholarship and originality.

3.6 Original Research Contribution To Knowledge

E&BI, particularly from a SME perspective, is considered a key driver of our economy. Wealth creation and the significant majority of jobs are produced by SME's started by entrepreneurially minded individuals (Kao 1995; Henry et al. 2003). Although E&BI has become an accepted economic tool with in Australia, the academic discipline is still relatively young and is considered to be in a period of development and change (Nelson 2004; Schaper & Volery 2004; Volkmann 2004). Also of significance, is that unlike traditional business studies, which are heavily reliant on conventional academic rigour, E&BI by its very nature has varying frameworks based on the desired student learning outcomes (Streeter et al. 2002; Henry et al. 2003; Volkmann 2004).

The element of originality in research varies according to the nature and scope of the research. A PhD provides an original contribution to the field of knowledge of the subject with which the research deals (Blaxter et al. 2001). Originality is defined by Blaxter et al. (2001) as the research approach and/or interpretation of the findings, and, in some instances, the discovery of new facts. Blaxter et al. (2001) further expands his view point of originality to include:

- setting down a major piece of information in writing for the first time,
- continuing an existing major piece of work,
- applying an original technique or observation,
- making an amalgamation of knowledge that has not been made before,
- using already known material but with a new interpretation,
- being cross-disciplinary by using different methodologies in adding knowledge, and,
- through experience developing something worthwhile from an academic or scholarly standpoint.

This thesis through its research, findings and publication, has made an original contribution of knowledge to the business discipline, in particular, to the field of E&BI. The originality of the research is demonstrated through:

- the research approach based on a constructivist/interpretive/qualitative theory approach;

- applying original observations by the researcher as to the academic environment associated with the scholarly delivery of E&BI education at Murdoch University and the broader community;
- interpreting existing knowledge to develop a cross-disciplinary publication framework and content for an entrepreneurship and business innovation focused teaching text; and,
- through utilising the research experience to develop a publishable text, which is useful from an academic or scholarly standpoint.

3.7 Data Analysis

Many authors contend that there is no right way to analyse qualitative data, and that analysis should be integrated with data collection (Denzin & Lincoln 2000; Dooley 2001; Denzin & Lincoln 2003). Qualitative data analysis is promoted by Denzin and Lincoln (2000) as a content analysis process, in which a representative sample of non-numeric data obtained in an unstructured manner, is examined for similarities and differences in substance, style, or symbolic content. The central concept of qualitative content analysis is founded on an inductive development of categories and a deductive application of categories.

Classical qualitative content analysis has few answers to specific questions, but rather provides a framework of qualitative reasoning to develop the aspects of interpretation to formulate meaning (Denzil & Lincoln 2000). The main purpose of qualitative content analysis is to formulate a criterion of definition derived from a

theoretical background, and to develop research questions appropriate to the objective of the investigation (Dooley 2001). The textual material taken into account is then worked through, eventually being reduced to form main categories, which have meaning and reliability. Deductive reasoning works with previously formulated, theoretically derived aspects of analysis, which are then integrated and rationalised (Denzil & Lincoln 2000).

The research design and methodology provides a framework for the qualitative analysis to occur and will now be discussed.

3.8 Research Design and Methodology

The research design links the field of research to the real world operational environment (Denzin & Lincoln 2000). The research design was structured to provide a way for me to discover the existing knowledge in E&BI, and through a participatory process, to investigate the following questions:

1. What is representative of international E&BI good practice?
2. What text framework and content would be suitable for use by secondary, community and adult education institutions within Australia?
3. What implications will exist for the text to be suitable for delivery to both a digital and print audience?

Although the research endeavoured to answer these questions from an Australian perspective, particular consideration was given to international good practice and the academic environment of Murdoch University. The research was designed to

not only add value through the amalgamation of knowledge in E&BI from a scholarly viewpoint, but also to discover new knowledge through my participatory experience. The study used a constructivist/interpretive/qualitative paradigm, and, therefore, the specific assumptions that related to the paradigm influenced the overall research design. Accordingly, emphasis was placed on the following:

- the discovery and exploration of knowledge rather than verification, and,
- interpretation arising from participation rather than experiments.

Each of these will be discussed further in the following section.

3.8.1 Discovery and Exploration

The study has sought to discover a suitable framework and content for an entrepreneurship and business innovation focused teaching text. The constructivist/interpretive/qualitative paradigm assisted me in forming a conceptual framework and content for the construction of the text. Due to the emerging nature of the E&BI discipline and its often intangible and variable conceptual nature, the research process comprised formal research, a consultative process with work colleagues, and drew on an extensive utilisation of E&BI knowledge and teaching resources I previously developed. The formal research included an in-depth literature review of current E&BI practices, and a case analysis of the proposed program in E&BI to be offered by Murdoch University. The exploration process of the research involved a consideration of the assumptions arising from the formal research with my colleagues.

3.8.2 Interpretation and Participation

The research, using participatory action, was designed to occur in four moments of action research, namely reflection, planning, action, and observation. The knowledge discovered was evaluated through a series of participatory actions relating to my capacity as a lecturer in E&BI. Many of the conceptual constructs developed through the formal research and exploratory process were examined for their suitability. The findings arising from my observations provided a significant contribution to the outcomes of the research. Although much of the documentation relating to these observations was in fact subjective, it occurred within a scholarly environment associated with a tertiary program framework and may be considered to be reliable.

3.9 Appropriateness and Quality of Research

Appropriateness and quality of research reflect the perceived reliability and validity of the data as well as the appropriateness of the methods used in carrying out a research project. The quality of the data and the appropriateness of the methods employed, are particularly important in the social sciences because of the different philosophical and methodological approaches to the study of human activity. E&BI is considered an emerging discipline and, as such, is often associated with intangible and variable concepts. Accordingly, the constructivist/interpretive/qualitative paradigm was felt to be well suited to the research objective, enabling the research design to achieve an appropriate degree of reliability and data validity.

The very nature of qualitative research dictates that results are influenced by the researcher's interpretations and the varying contexts of the research environment. Denzin and Lincoln (2000) argue that in qualitative research, appropriateness and quality of research, are more reflective of trustworthiness and authenticity. Equally, Dooley (2001) asserts that qualitative research is appropriate when the researcher has a natural participatory role in the research environment. It is argued that my participation in this study, does in fact, exist naturally within the academic teaching environment, and that consequently, the design of the study is appropriate.

A constructivist paradigm is a more suitable approach, for it assumes that facts are facts only within some theoretical framework (Denzin & Lincoln 2000). This is considered appropriate for the defined research environment and objectives. Participatory action research involves people theorising about their practices (Dooley 2001). It is argued that the participatory process of this study subjects the data to critical scrutiny and, through my interpretations, provides true authenticity.

Participatory action research allows and requires participants to give a reasoned, rather than a definitive justification of their research methodology and findings to others, because they can show how the evidence has been gathered and the ways in which critical reflection has occurred. Critical reflection within the analysis of the data arising from the participants observations, present a rationale of validity and originality (Denzin & Lincoln 2003). It is argued that participatory research, particularly within the field of E&BI and education, legitimises the conceptual findings of constructivist/interpretive research and, accordingly, validate the selection of the qualitative paradigm.

3.10 Summary

The research design was based on a constructivist/interpretive/qualitative paradigm, which was structured for the discovery of knowledge in support of the development of a framework and content, for an entrepreneurship and business innovation focused teaching text. Data collection occurred through formal research discovery and exploration of knowledge rather than verification, and was subject to my interpretation arising from my natural participation. The constructivist/interpretive/qualitative approach was considered appropriate to provide for the reliability, validity, truthfulness and authenticity of the study. Accordingly, from a scholarly viewpoint, the design of this study has enabled the research and findings to make an original, reliable and useful contribution to the field of E&BI.

The next chapter, Chapter Four – Discussions and Findings, is devoted to data analysis, and to discussion and findings of the research. It presents, where appropriate, answers to the research questions and provides a conceptual framework for entrepreneurship education and associated text publications. Moreover, it provides further relevance of the development from such research about the framework and content for the entrepreneurship and business innovation focused publication.

Chapter Four – Analysis, Discussion and Findings

4.1 Introduction

This chapter is devoted to the data analysis, discussions and findings of the research. It presents, where appropriate, answers to the research questions and provides a conceptual framework for entrepreneurship education and the associated text publication. It explains further the relevance of the knowledge acquired from such research in developing the content for the entrepreneurship and business innovation focused text.

The approach used in explicating the data analysis, evaluation and ultimate findings, was firstly to rationalise a conceptual framework that best facilitated a constructivist paradigm to examine the questions. Within the context of the paradigm, analysis occurred through a critical interpretive approach. The second stage of the analysis involved formalising a qualitative content framework, as a means of providing a reasoning process to rationalise answers to the research questions.

This process and exploration of knowledge is discussed in more detail later in this chapter. Lastly, findings from the analysis and evaluation are presented. Comment is made as to their reliability, validity and appropriateness.

4.2 Data Analysis

4.2.1 Data Analysis

The objective of the research was to discover knowledge to support the development of a framework and content for an entrepreneurship and business innovation focused text. The central concept of the qualitative content analysis was that there exists an increased demand for E&BI knowledge, which provides a greater balance between purposeful theory and actual operational entrepreneurial practices. The analysis of data required a conceptual framework to be developed which was consistent with the research paradigm. It also had to be designed in such a way for me, through a participatory process, to identify and evaluate knowledge in E&BI and investigate the following questions.

1. What is representative of international E&BI good practice?
2. What text framework and content would be suitable for use by secondary, community and adult education institutions within Australia?
3. What implications will exist for the text to be suitable for delivery to both a digital and print audience?

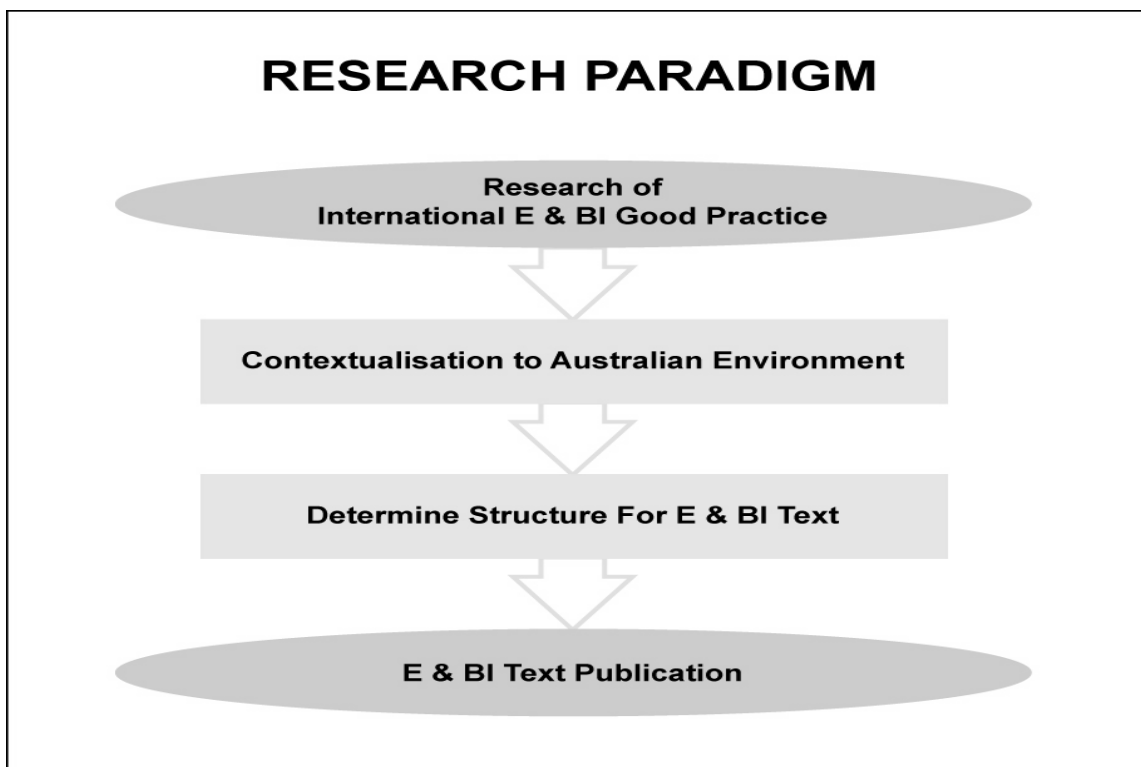
The literature inquiry facilitated the interpretation of existing knowledge to develop a cross-disciplinary philosophy for entrepreneurship and business innovation learning. This new knowledge ultimately proffered a conceptual framework for me to better understand how E&BI themes relate to each other, and build on my prior knowledge so as to enable the interpretation of E&BI pedagogy to construct new knowledge suitable to the Australian environment.

4.2.2 Conceptual Analysis Framework

A conceptual framework was developed based on deductive reasoning through comparative analysis. Comparative analysis is an accepted methodology for qualitative research, and is well suited to extracting conceptual knowledge from large bodies of textual based data. The purpose of the matrix analysis was to examine, compare, contrast, and synthesise the E&BI information available within the current literature.

The conceptual framework was defined within the research paradigm, in that there existed an increased demand for E&BI knowledge with a greater balance between purposeful theory and actual operational entrepreneurial practices. The conceptual model was designed to facilitate a critical interpretive analysis of the data.

Figure 4.1 Conceptual Analysis Framework



4.2.3 Qualitative Interpretative Reasoning

Within this study, the qualitative content analysis has provided a framework for deductive reasoning to occur, in order to develop the criterion of interpretation to formulate meaning. From this criterion, interpretative reasoning was able to be applied to the concepts so as to allow a rationale of the data, in order to provide answers to the research questions. While many authors argue research on entrepreneurship education has been limited, they recognise that the field is expanding even though most of the research has tended to be fragmented and exploratory (Hills 1988; Klatt 1988; Kent 1990; Gravan & O'Conneide 1994; Hills & Morris 1998; Onstenk 2003; Collins et al. 2004; Enterprise Directorate General 2004). For this reason, there exists a lack of accepted paradigms or theories of entrepreneurship education, and, as a result, curriculums are often being developed differently to meet the particular needs of the individual institutions and learning outcomes of the students. Accordingly, given the objectives of this study and based on the conceptual analysis framework, the following evaluation criterion was established:

- Does the practice represent good practice?
- Does the practice have currency?
- Does the practice have replication potential?
- Is the practice suitable for use by secondary, community and adult education institutions within Australia?
- Is the practice suitable for delivery to both a digital and print audience?

Based on these evaluation criteria, a qualitative critical interpretive analysis was conducted of the literature, which is discussed in more detail in the following section.

4.3 Discussion

4.3.1 Pedagogical Environment and Interpretation

Pedagogy is considered to be the activities important to knowledge in the process of education, teaching or instruction (Print 1993; Grundy 1987). Critical pedagogy goes beyond the experience of the learner; it reflects the process which recognises the experiences of both the teacher and the learner (Grundy 1987). Within this concept, educators enter the academic environment with a personal and often shared idea of good practice, their role, and the expectations others have of them (Print 1993; Grundy 1987; Ducheneaut 2001). Guided by these and often in consultation with their peers, they synthesise a rationalised perspective of pedagogy relevant to their areas of expertise. From their conceptualisation of the pedagogy of the learning environment, educators continually evaluate the process and through deductive reasoning interpret what they believe are appropriate outcomes (Grundy 1987).

In my capacity as a tertiary educator I was responsible for the coordination and delivery of entrepreneurship, business feasibility, business planning and business innovation educational programs. Resulting from research conducted in the development of a new E&BI academic program, I ascertained that current teaching texts were not effectively aligned with good practice, and to a lesser degree, lacked pedagogical and digital cohesiveness.

A review of existing E&BI academic programs being offered by secondary, community and adult education institutions within Australia, revealed that the majority of such programs varied considerably, some focusing purely on entrepreneurship theoretical perspectives, with others being more business practice orientated. It appears however, that many of these institutions are in the process of reviewing their programs to become more outcome based. Although the available data was subjective in nature, it assisted me in formalising the research paradigm that there existed an increased demand for E&BI knowledge with a greater balance between purposeful theory and actual operational entrepreneurial practices. This paradigm was consistent with the literature and consultative feedback from both colleagues and students (Meredith 2001; Henry et al. 2003; Jones & English 2004; Bell et al. 2004; Nelson 2004).

It was further rationalised that E&BI educational programs must first be consistent with, and reflective of, the mission of the institution providing such programs and also must address the learning needs of students. In accepting this perspective, I rationalised that suitable E&BI texts need to have an overarching framework, and where appropriate, have sufficient breadth to be suitable for a variety of programs.

In applying this pedagogical interpretation for the development of a suitable text, I evaluated the characteristics of the proposed Major in Entrepreneurship and Business Innovation. The outline of the Major in E&BI follows:

Entrepreneurship and Business Innovation plays a significant role in the start up, development and operational management of small to medium enterprises. The Major in E&BI will provide graduates with the necessary knowledge they require in order to understand and manage the process of business feasibility studies, operational planning, business innovation and the development of business assets through the strategic application of resources. The Entrepreneurship and Business Innovation Program provides an opportunity for students to apply theoretical solutions to practical small to medium enterprise business problems through both course based and experiential learning (Thompson 2003a).

As part of the evaluation process, the defined learning objectives of the Major in E&BI were considered. These comprised the following competencies:

- oral, written and electronic communication associated with the management of small to medium size enterprises;
- strong analytical and problem solving skills associated with business feasibility and operational planning;
- the importance of recognising equal opportunity and social justice as core values supporting good business management;

- understanding and respecting the importance of social, biological, cultural and economic significance of life from a global perspective as a component of supporting sustainable business;
- functioning effectively within a team based environment in order to facilitate commercially based outcomes;
- the application of commercial theory to business process within the discipline of entrepreneurship and business innovation; and,
- understanding the importance of interdisciplinary human knowledge in its contribution to innovative and sustainable business practices (Thompson 2003a).

From a more intrinsic perspective within the pedagogical evaluation, for the purposes of the text design and content development, I further examined the core E&BI unit characteristics that existed within the program, namely:

- **Business Feasibility and Management Concepts** - This unit introduces students from disciplines other than commerce to areas of business feasibility and management planning activity, which may be useful to support graduates within their chosen work environment. The unit considers business structures, legal and intellectual property issues, marketing concepts, organisational and personnel, and financial planning. Business planning, feasibility, and business research methods will be also considered from both an entrepreneurial and business perspective. The unit will have a

strong focus on technology and science based commercialisation and related issues.

- **Entrepreneurship and Small Business Innovation** - This unit explores the cognitive, technical and behavioural requirements of entrepreneurs using case studies to illustrate the skills and competencies required for business success and innovation. Issues addressed include: the business concept; business feasibility; the sources of venture capital for business innovation; the relevant legal framework; test marketing; accounting information systems and operational business planning. Students will work in small groups to develop a viable business plan for the launch of a new product or service.
- **Entrepreneurship and Business Program** - This unit aims to integrate knowledge learnt throughout the Entrepreneurship & Business Innovation Program by supporting students to develop a business from concept to commercialisation. Using structured, experiential learning, students will be required to submit a comprehensive business plan that describes a new venture opportunity, viability and operational management methodology. The experiential learning can occur both in an individual or group capacity. Students are encouraged to seek industry participation within their learning process and have an opportunity to start and operate the business subject to approval of the programme chair (Thompson 2003a).

Arising from the paradigm selected and the pedagogical interpretation of E&BI programs and associated texts, the following discussion provides a dialogue of the conductive reasoning and findings relating to the research questions.

4.3.2 Entrepreneurship and Business Innovation Education Good

Practice

In recent times entrepreneurship education has gained international popularity, particularly in the United States. Two models of entrepreneurial education emerged, one focused on traditional business management and the other a separate entrepreneurship discipline which focused on new enterprises. This new enterprise start-up approach stood in stark contrast to existing managerial doctrine (Grant 1998; Kuratko 2003).

Rolffe (2003) asserts entrepreneurial education has at least two broad dimensions. The first dimension is awareness, and the second is skills. He argues that awareness education should focus on the past, present, and future roles the entrepreneur plays, whereas skill focused education is relative to actual process competencies. Similarly, Carland et al. (1983) suggests that if the desired outcome of an entrepreneurship program is an integrated understanding of business principles and the desired approach is a hands on format, the logical structure is to employ a project approach. Alternatively, Henry et al. (2003) asserts that entrepreneurship can, in fact, be taught, but the learning is related to the entrepreneurial process rather than art of the entrepreneurship. Sandercock (2001) too argues that entrepreneurship can be taught, but that it must be relative to a specific economic environment.

In contrast, many authors believe that that entrepreneurship must be experienced, and although this experience can be enriched through traditional business education, they argue that traditional tertiary business school theory only based models may not be appropriate (Kirby 2003; Kourilsky and Walstad 2002). Alternatively, from a more balanced view point Streeter et al. (2002) and Henry et al. (2003) suggest that entrepreneurship education should reflect the essential tools and commercial processes allied with core entrepreneurial activities. Many researchers also believe that the entrepreneur needs an understanding of the both the theory and actual operational practices associated with key enterprise disciplines such as marketing, finance, technology and operations (Hills & Morris 1998; Pyke 1998; Henry et al. 2003; McMullan & Gillan 2001; Ulrich 2001).

Arising from these conflicting perspectives, an issue confronting many educational institutions is that frequently they only appreciate management disciplines from a traditional pedagogical perspective, and are often unable to present them for non-business students seeking entrepreneurship education (Scott et al. 1998; Kirby 2003; Volkman 2004).

Although concepts of entrepreneurship education models vary among academics, much of the accepted work in entrepreneurship education can be interpreted as supporting a program in entrepreneurship that focuses on the importance of innovation in entrepreneurial endeavour, and challenges students to look for new opportunities and initiatives (Carland et al. 1983; Ronstadt 1984; Grant 1998; Hills & Morris 1998; Pyke 1998; Lammers 2001; McMullan & Gillin 2001; Henry et al. 2003).

In order to evaluate these viewpoints and practices within the conceptual analysis framework, the relative data has been synthesised into a comparative analysis matrix. Two separate comparative analysis matrixes were utilised. The first comparative analysis matrix, Table 4.1 Objectives of Entrepreneurship Education, presents an integrated comparison of entrepreneurship education learning objectives. The second comparative analysis matrix, Table 4.2 Entrepreneurship Graduate Skill Outcomes, presents an integrated comparison of entrepreneurship education and graduate skill (competencies) objectives.

An issue arising from the literature however, is that the data suggest that for many entrepreneurship curriculums, a suitable framework and supporting resources such as texts, will vary not only from the desired student learning outcomes, but also be affected by the institutions broader business program (Ronstadt 1984; Plaschke & Welsch 1990; Grant 1998). When making a comparison with the situation in Australia, it is important to note that entrepreneurship education within Australian universities needs to focus on small business graduate outcomes (Riding et al. 1995; Douglas 2004). In rationalising the divide between entrepreneurial theory, practice and education delivery, particularly toward curriculum and content knowledge development, the analysis process was reliant on my own conceptualisations and collegial debate.

Table 4.1 Objectives of Entrepreneurship Education: Comparative Analysis Matrix

Plaschke & Welsch (1990)	Carland (1983)	Pyke (1998), Henry et al. (2003)	Hills & Morris (1988)	Ashmore (2004)	Gravan and O’Cinneide (1994)
Identify and evaluate the characteristics of prospective entrepreneurs	Integrated understanding of businesses principles	Achieve an understanding of business theory such as marketing, finance, technology and operations	Increase awareness and understanding of the process involved in initiating and managing a new business enterprise	Entrepreneurial skills which espouse the unique traits, behaviours and processes that differentiate an entrepreneur from an employee or manager	To acquire knowledge relevant to entrepreneurship
Evaluate the opportunities and risks of a venture	Ability to apply such business principles	Capable of application of such operational practices associated with the theory	Increase student awareness of the new venture/smaller-company career option	Business ready skills which equip the student with business, or entrepreneurial, knowledge and skills that are prerequisites for the study of entrepreneurship, and	To acquire skills in the use of techniques, in the analysis of business situations, and in the synthesis of action plans
Assemble financial, technical and human resources to initiate a new venture, and	Capability to project manage the process from business idea to start-up and		Develop a fuller understanding of the interrelationships between the business functional areas	Business functions skills which promote general business capability to perform activities for creating, evaluating, starting and running a business	To identify and stimulate entrepreneurial drive, talent and skills
Create, develop, acquire or merge a business	Capability to establish the venture into growth, expansion and diversification		Contribute to an appreciation of the special qualities of the entrepreneur		To undo the risk-adverse bias of many analytical techniques
			Increase understanding of the role of new and smaller firms within the economy		To develop empathy and support for all unique aspects of entrepreneurship
					To devise attitudes towards change

Table 4.2 Entrepreneurship Graduate Skills Outcomes: Comparative Analysis Matrix

Kent (1990)	Plaschke & Welsch (1990)	Carland (1983)	Ulrich (2001)	Hills & Morris (1988)	Ashmore (2004)
To introduce a new product or service in the market	Evaluate the opportunities and risks of a venture	Business idea generation	Business planning	New venture creation	The generation of ideas, recognition of opportunities, and the determination of the feasibility of ideas
To develop and implement a new technology that lowers costs and improves efficiency	Assemble financial, technical and human resources to initiate a new venture, and	Business start-up	Management	Risk and economic analysis	The development of the business concept, the plans for the venture, determination of resource needs within the business plan, identification of value adding strategies such as the protection of intellectual property
To open a new market by introducing products, services, or technology not previously available	Create, develop, acquire or merge a business	Business development, growth and diversification	Market research with a focus toward competitions	Innovation	Identifies and acquires the financial, human, and capital resources needed for the venture start-up
To discover a new source of supply for a scarce resource or methods of increasing the supply from existing resources by more efficient exploitation, and		Business planning	Strategic analysis toward achieving competitive advantage	Business and proactive planning	The operation of the venture and utilisation of resources to achieve its goals and objectives, and
To reorganise an existing enterprise, either private or public, by innovative management			Financial analysis and management	Creating value through resource management and exploitation of market opportunities	The harvesting of the future wealth of the venture (or, alternatively, the contingency options in the demise of the venture)
			Economic analysis and management		

In interpreting the literature it was apparent that many of the entrepreneurship viewpoints and programs shared an overarching philosophy, according to which, there existed mandatory outcomes for such education programs. A more intrinsic comparative analysis, examining the consistency of desired graduate competencies within the E&BI education programs, was performed. In interpreting the literature, it was again apparent that varying terminology such as skills, competencies and attributes had been used with a varying degree of commonality.

It was strongly evident that many authors asserted that entrepreneurship education should emphasise the development of student competencies that would enable them to develop a new products or services, to rationalise such products or services into a formal business concept, to implement the start-up of the business and manage business growth (Ashmore 2004; Carland 1983; Kent 1990; Hills & Morris 1998; Ulrich 2001). Considered of equal importance by many experts, is that the pedagogy pertaining to entrepreneurship education should be unstructured and action-oriented, with the aim of enabling students to apply the practices of the entrepreneur, as well as gaining a foundation in the theory of new venture creation (Ashmore 2004; Hills & Morris 1998; Ulrich 2001). Consistent with this philosophy, Truitt (2002) and Kent (1990) argue that students should also pursue the development of creative practices such as feasibility studies, which focus on concept development. This philosophy of creativity as being an integral part of entrepreneurship academic design has in recent times gained international acceptance, and is gaining recognition as best practice in both professional and tertiary programs.

Resulting from a comparative analysis of the literature, it was determined that imparting entrepreneurial knowledge requires a student interactive pedagogy with a focus toward cross-functional integration, a change from the quantitative to the qualitative, from the logical to the subjective, and the conceptual to the practical (Carland et al. 1983; Ducheneault 2001; Grant 1998; Hills & Morris 1998; Kuratko 2003; Ulrich 2001). This was consistent with my academic experience and anecdotal evidence emerging from student consultation.

To better understand the significance of the good practice research outcomes, for both the learning objectives and graduate competencies, it was considered appropriate that their alignment with a text framework and content be better understood. This will be discussed in further detail in the next section of this chapter.

4.3.3 Text Framework and Content

A review of the literature clearly established the existence of a consensus that the design of the curriculum and providing relevance of material should be given priority when developing a text (Grant 1998; Hills & Morris 1998; Breen & Bergin 2000; Collins et al. 2004). The literature also revealed that for many entrepreneurship curriculums, a suitable text varies not only from the desired student learning outcomes but is also affected by the framework of the broader academic program and institutional restraints (Ronstadt 1984; Plaschke & Welsch 1990; Grant 1998; Hills & Morris 1988). Although some disagreement amongst authors as to appropriate E&BI program content was apparent, it was strongly evident that all programs sought a strong alignment between educational resources such as texts, and the program learning objectives and graduate competencies.

Significantly Fiet (2001) recognises that entrepreneurial textbooks contribute to the program deficiencies because they consist largely of theory and discussions of the functional areas of a business. Fiet's position is that many students have already been exposed to fundamental business theories, and entrepreneurial texts need to be structured in such a manner as to provide practice related resources. Fiet's viewpoint was further supported by the findings of research conducted on 200 entrepreneurship colleges and university courses, which determined entrepreneurial texts should include more practical examples, less theoretical discussion, and adopt a higher level approach to make them more challenging to the students (Klatt 1988).

Many authors recognised that entrepreneurial texts cannot be a best fit to all learning programs and, accordingly, recommended an overarching policy as being the most appropriate (Ashmore 2004; Hills & Morris 1988; Ronstadt 1990; Ulrich 2001). This is further supported by the recognition of the diversity of aims and course content amongst universities, secondary and community institutions which warrant resources that are inclusive in design (Henry et al. 2003; Kirby 2003; Newton & Hennicks 2003; Bell et al. 2004)..

From an international perspective, the literature suggests that entrepreneurship programs on offer by universities and vocational institutions focus on the study of entrepreneurship in a domestic market setting (Bell et al. 2004; Hayward 2004). Rationalising international E&BI good practice for the Australia environment requires the acknowledgement that entrepreneurial education in Australia focuses on the small to medium enterprise (SME) view point of business practices (Meredith 2001; Henry et al. 2003; Bell et al. 2004; Nelson 2004). A recognised weakness of many Australian entrepreneurship textbooks is that they fail to adequately consider the role of entrepreneurship practice and creativity (Rolffe 2004).

4.3.4 Digital and Print Audience

The literature also provided abundant evidence that student learning outcomes are greatly influenced by the means used to deliver an educational experience, its pedagogy, text design and learning material accessibility (White 2004; Ndahi 2005). Also apparent within the literature and consistent with my experience, is that digital learning resources and other non-traditional delivery mechanisms are considered to be appropriate value adding tools (White 2004). Stemming from the sort of student seeking education in entrepreneurship, the importance of online accessibility as a learning resource and practical entrepreneurial tool was also stressed in the literature (Breen & Bergin 2000; Bodomo et al. 2003; Collins et al. 2004). At the same time, the evidence suggests that the most significant learning resources in entrepreneurial vocational education are digital texts, and learning material which offer an action-oriented experience (Armitage et al. 1999; Johnson et al. 2000).

In rationalising the design of such texts that are suitable for both digital and print audiences, the texts must ideally have a simple context and provide a diversity of content that reflects the entire program rather than a single learning outcome (Rossett & Sheldon 2001; Weigel 2002; Kravitz 2004).

4.4 Findings

4.4.1 Findings

The analysis of data was based on a conceptual framework, which was defined within the research paradigm, in that there existed an increased demand for E&BI knowledge with a greater balance between purposeful theory and actual operational entrepreneurial practices. The conceptual model was designed to facilitate a critical interpretive analysis of the data to discover international E&BI good practice. Although much of the outcomes of the study have arisen from an analysis of international good practice in E&BI, it has also, to a degree, been based on my subjective interpretation arising from my academic experience in the field.

4.4.2 International E&BI Good Practice

Question one within this study considered what is representative of international E&BI good practice? The findings of the study are conclusive in nature, as a clear consensus emerged in the literature, which was also consistent with my experience. Although varying terminology or perspectives may have been present, the data asserts that the following characteristics represent the E&BI education learning objectives that are consistent with good practice, current and appropriate for replication:

- to achieve an understanding of business theories involved in starting a new business venture (Carland 1983; Henry et al. 2003; Hills & Morris 1998; Pyke 1998);

- to achieve competency in the management of processes required for a new business venture (Ashmore 2004; Henry 2003; Pyke 1998);
- to achieve an understanding of techniques in the development and evaluation of business concept viability and market opportunity (Plasch & Welsch 1990; Carland 1983; Henry et al. 2003; Hills & Morris 1998);
- to achieve competency in the application of such business concepts and market determination techniques (Carland 1983; Henry et al. 2003; Hills & Morris 1998; Plasch & Welsch 1990);
- to achieve an understanding of entrepreneurial practices in business development, change and growth (Carland 1983; Gravan & O’Cinneide 1994; Henry et al. 2003; Hills & Morris 1998; Plasch & Welsch 1990); and,
- to achieve a competency in the application of tools and techniques associated with entrepreneurial practices (Carland 1983; Gravan & O’Cinneide 1994; Henry et al. 2003; Plasch & Welsch 1990).

Through a comparative analysis, the following represents a synthesised perspective of E&BI graduate competencies that can be considered good practice, have currency and are appropriate for replication:

- the ability to evaluate business opportunities (Ashmore 2004, Plaschke & Welsch 1990),
- the ability to generate business ideas (Ashmore 2004; Carland 1983; Hills & Morris 1998; Plaschke & Welsch 1990; Ulirch 2001),

- the ability to evaluate the risk of business concepts (Hills & Morris 1998; Plaschke & Welsch 1990),
- the ability to perform a business feasibility study (Ashmore 2004; Plaschke & Welsch 1990; Ulrich 2001),
- the ability to create value through applying entrepreneurial practices to innovate and develop new and alternative solutions (Ashmore 2004; Hills & Morris 1998; Kent 1990; Plaschke & Welsch 1990),
- the ability to conduct market research and formalise marketing action plans (Ashmore 2004; Carland 1983; Kent 1990; Ulirch 2001),
- the ability to proactively plan the start-up and operation of a new business venture (Ashmore 2004; Carland 1983; Hills & Morris 1998; Plaschke & Welsch 1990: Ulrich 2001),
- the ability to develop and execute a wealth creation strategy through the use of a business exit strategy (Ashmore 2004; Hills & Morris 1998; Kent 1990; Ulrich 2001), and,
- the ability to document and communicate the business venture and viability for the purposes of securing finance or other purposes (Ashmore 2004; Carland 1983; Hills & Morris 1998; Plaschke & Welsch 1990; Ulrich 2001).

These characteristics of international E&BI good practice are considered reliable, current and appropriate.

4.4.3 Text Framework and Content

Question two within this study considered what text framework and content would be suitable for use by secondary, community and adult education institutions within Australia? The findings of the study are interpretive in nature, as although there exists considerable concurrence within the literature due to the varying use of terminology, the synthesis of such knowledge required a significant degree of rationalisation on my part.

Through interpretive comparative analysis of the recognised models of desired entrepreneurship graduate outcomes and the objectives of entrepreneurship education, and drawing on my academic and commercial experience within this field, the following figure represents a conceptual pedagogical model for an entrepreneurship and business innovation focused learning text that is considered suitable for use by secondary, community and adult education institutions within Australia.

Table 4.3 Pedagogical Model for an E&BI Text

	Learning Themes
1	Business principles
2	Business concept
3	Business planning
4	Entrepreneurship
5	Business innovation
6	Small to medium enterprise perspective
7	Business feasibility determination process
8	Business structures and legal frameworks
9	Market research
10	Market analysis
11	Marketing
12	Venture financing
13	Commercial value adding strategies
14	Planning the business start-up process
15	Business performance evaluation and planning
16	Business analysis
17	Business feasibility report writing
18	Business plan report writing

This finding was considered reliable and appropriate given the concurrence within the literature, and that interpretation was subjectively benchmarked against my participation in the field.

4.4.4 Digital and Print Audience

Question three of this study considered the necessary characteristics for the text to be suitable for delivery to both a digital and print audience? Although there was considerable anecdotal evidence available in answer to this question, no reliable findings could be determined. However, based on the available literature, drawing on my experience and after consultation with colleagues, it was rationalised that an appropriate design for a text to be suitable to both a digital and print audience would require the following characteristics:

- a simple context,
- a diversity of content,
- be reflective of broader learning outcomes,
- have content suitable for online viewing and pdf conversion, and,
- be structured to individual chapter usability.

4.5 Summary

This chapter was devoted to the data analysis, discussions and findings of the study. It has presented answers to the research questions and ultimately provided a workable conceptual framework for E&BI education and an associated text publication. It provides further relevance of the knowledge development from such research toward the content for the entrepreneurship and business innovation focused text.

The analysis of data was based on a conceptual framework, which was defined within the research paradigm that there existed an increased demand for E&BI knowledge with a greater balance between purposeful theory and actual operational entrepreneurial practices. The conceptual model was designed to facilitate a critical interpretive analysis of the data to discover international E&BI good practice. Although much of the outcomes of the study have arisen from an analysis of international good practice in E&BI, it also relied on my subjective interpretation consistent with my academic experience in the field.

The outcome of this study resulted in the completion of an E&BI focused text titled "Entrepreneurship and Business Innovation" which was formally published in 2005.

The next chapter, Chapter Five – Conclusion, makes concluding remarks as to the research and the development of knowledge in support the publication of an E&BI focused text. It weighs further the pedagogical value of the outcomes of the study against the original impetus for the research. Recommendations are also put forward for future areas of research in order to build on the outcomes of this study.

Chapter Five – Conclusion

5.1 General

This study has examined the knowledge required for the publication of an E&BI focused teaching text. The thesis has explicated the scholarly coherence and originality of the published work and further places the text within a pedagogical framework. The research design was based on a constructivist/interpretive/qualitative paradigm, which was structured for the discovery of knowledge in support of the development of a framework and content for an entrepreneurship and business innovation focused teaching text. Data collection occurred through formal research, discovery and exploration of knowledge rather than verification, and was subject to interpretation arising from my natural participation. My academic perspective and impetus for the study greatly influenced the choice of paradigms.

The central concept of the qualitative content analysis was based on the paradigm that there exists an increased demand for E&BI knowledge toward a greater balance between purposeful theory and actual operational entrepreneurial practices. The analysis of data required a conceptual framework to be developed consistent with the research paradigm, and be so designed as to allow me through a participatory process, to identify and evaluate knowledge in E&BI and investigate the following questions:

1. What is representative of international E&BI good practice?
2. What text framework and content would be suitable for use by secondary, community and adult education institutions within Australia?
3. What implications are there for the text to be suitable for delivery to both a digital and print audience?

The literature inquiry facilitated the interpretation of existing knowledge to develop the conceptual framework for me to better understand how E&BI themes relate to each other. The methodology applied in support of the literature study was to examine significant prior studies published in recognised journals and appropriate literature for the past ten years. This conceptual foundation, in turn, enabled the interpretation of the E&BI pedagogical environment within Australia. I rationalised that E&BI educational programs must first be consistent with, and reflective of, the mission of the institution providing such programs, and also must address the learning needs of students. In accepting this perspective, I reasoned that suitable E&BI texts need to be overarching in framework and, where appropriate, have sufficient breadth to be suitable for a variety of programs.

Arising from a review of existing E&BI academic programs being offered by secondary, community and adult education institutions within Australia, I determined that the majority of such programs varied considerably, some focusing purely on entrepreneurship theoretical perspectives, with others being more business practice orientated. Although the available data was subjective in nature,

it assisted me in formalising the paradigm that there existed an increased demand for E&BI knowledge with a greater balance between purposeful theory and actual operational entrepreneurial practices. This paradigm was consistent with the literature and consultative feedback from both colleagues and students (Meredith 2001; Henry et al. 2003; Jones & English 2004; Bell et al. 2004; Nelson 2004)

This study resulted in answers to the research questions being revealed and, accordingly, a formal text framework and content being designed that was suitable for use by secondary, community and adult education institutions within Australia, for delivery to both a digital and print audience and representative of international E&BI good practice.

5.2 Text Publication

The text "Entrepreneurship and Business Innovation" was published in July 2005.

The purpose of this book was to provide a road map for the reader to achieve a strong understanding of the processes associated with a Business Feasibility Study, Business Plan and Enterprise Start-ups. The book was designed to provide new entrepreneurs and existing Small to Medium Enterprise (SME) owners with a practical guide of how to pursue business success, based on established entrepreneurial and enterprise management techniques. The book used simple every day language and was styled for both a print and digital audience. Consistent with interpreted pedagogical framework, comprehensive and functional process orientated appendices that may be used in the practical development and communication of Business Concepts were included.

The perspective of the text was that the SME owner is an individual who establishes and manages a business for the principal purpose of furthering personal goals. In contrast, an entrepreneur is an individual who establishes and manages a business for the principal purpose of profit, growth and wealth creation. The entrepreneur is characterised principally by innovative behaviour and will employ innovative and strategic management practices in the business. Many people wishing to start their own business are under the mistaken belief that they are entrepreneurs and, as such, their Business Concept will be successful. Subsequently, these new entrants to the commercial arena start a business venture without truly considering their personal and commercial objectives.

The text has promoted the underlying purpose of business, which is the management of scarce resources to produce a product or service for monetary reward and profit. In addition, the text's perspective was that the validation of the business concept and the planning of the business start-up are actually two separate processes. From this viewpoint, the text has effectively articulated the theory and practices of Business Feasibility Studies and Business Plans as unique tools with the entrepreneurial process. In broader terms, the book, from an Australian viewpoint provides its reader with a strong understanding of the areas of business concept development, market research, strategic analysis, business viability analysis and business planning. The book has been designed to provide the reader with an understanding of process rather than in-depth knowledge, so allowing the text to span a number of complementary E&BI education programs.¹

¹ Refer Appendix – Entrepreneurship and Business Innovation Text

5.3 Appropriateness and Limitations

Although the study and text publication have made a valuable contribution to the field of business, there exists a number of limitations that need to be acknowledged. The analysis of data was based on a conceptual framework, which was defined within the research paradigm. Although this is an accepted qualitative approach, as a result, much of the outcomes of the study have relied on my subjective interpretation. Within the context of this approach, it is acknowledged that critical pedagogy pertaining to educators requires them to participate in their academic environment with an individual and often shared conceptualisation of good practice, their role, and the expectations others have of them (Grundy 1987; Print 1993; Frey et al. 2005). Accordingly, though published for use by secondary, community and adult education institutions within Australia, the text has been influenced by my viewpoint with regards to its pedagogical alignment.

It is asserted nonetheless, that the study through its research, findings, and publication, has made an original contribution to the business discipline, which is considered reliable and appropriate. The interpretation was considered valid as it was subjectively benchmarked against the existing knowledge, and analysed through my participatory experience.

5.4 Future Research

Entrepreneurship and business innovation is a relatively young discipline within Australia and is considered to be in a period of development and change (Nelson 2004; Schaper & Volery 2004; Volkmann 2004). Advances in communication technology and industrial relations reform are creating a boom in self-employment and home based businesses (Gome 2005). Accordingly, there has been a steady growth in demand for E&BI education. The challenge now facing academics is to ensure that E&BI programs and related teaching resources such as texts, are aligned with this new way of life. This need for professional knowledge within the technology driven, home based business sector warrants future research.

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