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This work is written by Dr. Ramraini Bte Ali Hassan who has the Postgraduate Diploma in Entrepreneurship from Cambridge University, UK , 2014 and Doktor Falsafah from Murdoch University, Australia , 2012. Dr. Ramraini is in Universiti Malaysia Sabah, Fakulti Perniagaan, Ekonomi Dan Perakaunan.

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A Study on Entrepreneurship Education

Ramraini Bte Ali Hassan

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To my beloved family…

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ABSTRACT

This is a study on entrepreneurship education. The goal of this study is to identify the best practices in conducting an entrepreneurship programme at the university level. An interview was conducted at several universities in the UK that have entrepreneurship education in order to make comparisons and arrive at the best practices in conducting an entrepreneurship programme drawn from all universities that participated in this study. The key issues that were covered in this study were the objectives of the programme, the types of subjects usually included in entrepreneurship programmes and the method used in teaching the programme.

CHAPTER 1 INTRODUCTION

1.1 Purpose of the study

The overall purpose of this study is to discuss some key issues related to entrepreneurship education, specifically in the entrepreneurship programme itself. How the entrepreneurship programme should be taught appears to be the most popular issue among experts in the field of entrepreneurship. It is argued that it is difficult to teach the subject due to some reasons. In fact, some educators face difficulties in teaching the subject. However, despite this, the demand for entrepreneurship education keeps increasing from year to year. The reason for the booming is because most people nowadays are aware of the benefit of the entrepreneurship programme to those studying it. Besides that, although there are many universities conducting entrepreneurship programmes, there are no commonalities among them. Therefore, it is worth finding some uniformity in conducting the programmes if they are to be conducted successfully.

This study, therefore, would try to identify the best practices for conducting the programmes by comparing the information gathered from the literature review as well as the interviews. As a result, at the end of this study, a model of entrepreneurship education would be drawn to provide some guidelines for conducting the programme so that the overall purpose of having the programme is achievable. At the same time, this study

would also cover some key issues related to the way the entrepreneurship programme is conducted such as objectives, content, and methods of teaching.

1.2 Objectives

This study has two main objectives, which are outlined below,

- To highlight some important areas in entrepreneurship education that need further discussion.
- To suggest a guideline in conducting an entrepreneurship programme. This would lead to the creation of a model that offers a guideline in conducting the programme.

1.3 Brief outline of the topic

This study will have six chapters that discuss in detail every area that leads to the achievement of the two objectives outlined above,

- Chapter 1 – This chapter would give an idea about the purpose of conducting the study, the objective of this study and the brief outline of every chapter included in this study.
- Chapter 2 – This chapter would mainly discuss any literature related to education on entrepreneurship that has been obtained from all articles gathered from various sources.
- Chapter 3 – This chapter would explain the method of research used in collecting and gathering the primary data for this study.

- Chapter 4 – This chapter would provide an analysis of the findings gathered from the methods used in the primary data collection.
- Chapter 5 – This chapter would attempt to discuss and compare all the data gathered in the literature review as well as in the interviews.
- Chapter 6 – This chapter would attempt to conclude all the data and findings in this study as well as to give some recommendations. Besides that, a model of entrepreneurship programme would be drawn in order to provide a guideline in conducting the programme.

CHAPTER 2 LITERATURE REVIEW

2.1 INTRODUCTION

There is a widespread paradigm that entrepreneurship plays a major role in the development of today's world economy. It is increasingly recognised for its contribution to both the macro level of economic development and the micro level of personal achievement (Anderson, Kirkwood, and Jack, 1998). Moreover, many countries throughout the world are beginning to realise entrepreneurship is the engine that drives the economies of most nations (Gorman, Hanlon, and King, 1997). In addition, its nature is often associated with the creation of new businesses, therefore creating jobs (Miner, 1997). Consequently, it is regarded by policy makers as a possible solution to rising unemployment rates (Garavan and O'Cinneide, 1994). Furthermore, there is also a wide acceptance within the European Union that future prosperity depends on the creation of vibrant indigenous businesses that are deeply rooted in the local economy (Garavan and O'Cinneide, 1994). Besides that, the need for the formation of new businesses is becoming more important as mass employment can no longer be guaranteed by labour-intensive industries (Yendell, 1997). Meanwhile, for the economy to thrive, the new businesses must survive and grow and therefore must be created by intelligent, competent entrepreneurs who have specialist knowledge in their fields of business (Yendell, 1997).

Accordingly, this has resulted in the need to expand the pool of local entrepreneurial talent that helps in developing and managing new business ventures (Garavan and O'Cinneide, 1994). Moreover, without highly educated, creative individuals with entrepreneurial mindsets and access to enterprise skills, no government strategy for business creation will succeed (Yendell, 1997). For this reason, it is not surprising to note the increase in the demand for entrepreneurship education throughout the world. This is evidenced by an intense growth in the number of educational institutions that offer entrepreneurship courses both in the United States and Europe (Falkäng and Alberti, 2000). For instance, in the UK itself, there are now many entrepreneurial activities at the local, regional, and national levels involving many types of institutions (Gibb, 1993). The courses offered are either at the graduate or undergraduate level, with a few universities that actually have a major or minor concentration in the area (Hisrich and Peters, 1998).

Moreover, a Gallup poll conducted in 1994 also revealed that there is a demand for entrepreneurship education among high school students (Gallup, 1994). These students viewed entrepreneurship as an alternative to being employed in an established company (Duffy and Stevenson, 1994) by starting their own businesses (Monroy and Reichert, 1993-94) after completing their formal university training (Young, 1997). Several research studies have also proven that there is a positive indication of the students' attitudes towards enterprise and business (Karr, 1985; Brockhaus and Horowitz, 1986; Scott and Twomey, 1988). Furthermore, a widespread notion that an ‘entrepreneur is born, not made' (McMullan and Long, 1990) has proven to be a myth as entrepreneurship is increasingly recognised as a discipline that allows the topic to be studied and the traits

to be acquired (Kuratko and Hodgetts, 1995). This has also been supported by Weaver's (1999) emphasis that there is no genetic link to that specific form of behaviour described as entrepreneurial and that those individuals who exhibited it or were classified as entrepreneurs were a product of their unique environments. In fact, the success of the entrepreneurial programme at Babson College, North America, one of the leading centres in entrepreneurial education in the world, shows that entrepreneurship is something that can be taught in its environmental settings (Hanson and Evans, 1998). In addition, although personality traits are difficult to influence, the vast majority of knowledge required by entrepreneurs can be taught (Gorman, Hanlon and King, 1997), and even some of the transferable skills could also be gained through studying (Guirdham and Tyler, 1992). Above all, the most significant fact is the role of a university in providing the atmosphere for the development or at least to initiate the development of the skill (Duke, 1996) in response to the recent more demanding environment (Laukkanen, 2000) as well as providing a theoretical understanding of entrepreneurship (Anderson, Kirkwood, and Jack, 1998).

Unfortunately, it is argued that current business program designs are inadequate in cultivating the necessary entrepreneurial characteristics in students (Kuehn, 1995). This, therefore, suggests a need to review the entrepreneurship program offered by universities. It is said that such programmes have very little consistency in approach (Gorman, Hanlon, and King, 1997). Moreover, although some programmes have put great emphasis on participants producing new ideas for business ventures, the results turn out to be generally disappointing (Garavan and O'Cinneide, 1994). It is, therefore, proposed that

the programme be more innovative in its approaches (NCIHE, 1997) as opposed to the traditional approaches that merely prepare students for the workplace (Kuehn, 1995). In light of this, the next section of this chapter, therefore, attempts to discuss in-depth issues related to entrepreneurship education by covering areas such as objectives, content, and methods used in teaching the entrepreneurship programme.

2.2 THE FIELD OF ENTREPRENEURSHIP

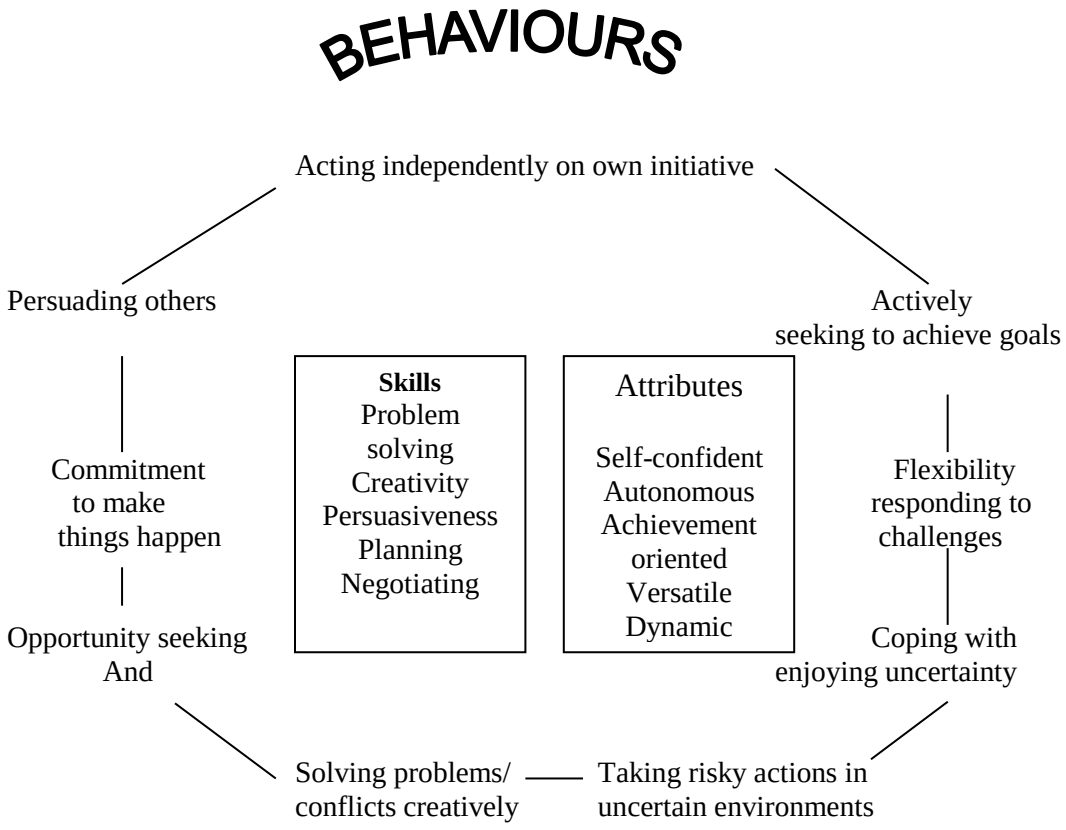
Despite its widespread recognition, ‘entrepreneurship', as yet, has no concise definition that can be accepted universally (Hisrich and Peters, 1995). The term entrepreneurship itself is actually rooted in the word entrepreneur, or ‘entreprendre' in French, which means ‘to undertake' (Kuratko and Hodgetts, 1995). In a broader sense, Kuratko and Hodgetts (1995) defined an entrepreneur as someone who undertakes to organise, manage, and assume the risk of a business. The ambiguity of this term, thus, allowed for a variety of interpretations (Maranville, 1992). Dating back to the 19th century, an entrepreneur was defined as someone who organises and operates an enterprise for personal gain, but then, in the middle of the 20th century, he or she was regarded as an innovator that reforms in order to revolutionise the pattern of production (Hisrich and Peters, 1995). Besides, in attempts to have a taxonomy of entrepreneurial theories, Herbert and Link (1988) have come up with twelve themes which have been advocated, mostly by different economic theories. In summary, these themes are described to emphasise more on the functions of the entrepreneur as opposed to his or her personality. Accordingly, Herbert and Link (1988) have put forward the definition of entrepreneur as

someone who specialises in taking responsibility for and making judgemental decisions that affect the location, the form, and the use of goods, resources, or institutions. However, despite the various attempts in defining entrepreneur based upon his or her function, it appears that entrepreneurs have common personality traits: initiative, creativity, risk-taking ability, enthusiasm, independence, and vision (Noll, 1993).

In the meanwhile, there have also been continued efforts in defining the term entrepreneurship itself (Kuratko and Hodgetts, 1995). It is defined as merely the creation of a new organisation (Gartner, 1989; Low and Macmillan, 1988) with the application of behaviours, skills and attributes individually and/or collectively (Gibb and Cotton, 1989) in the pursuit of an opportunity, irrespective of existing resources (Stevenson, Roberts, Grousbeck, 1989). As opposed to the entrepreneur personality, it is summarised by Hisrich and Peters (1985) that the definition of entrepreneurship is a kind of behaviour that includes initiative taking, the organising and reorganising of social and economic mechanisms to turn resources and situations into practical accounts, and the acceptance of risk failure (Shapero, 1975). More precisely, the essence of entrepreneurship is the initiation of change through creation and/or innovation (Morrison, 1998). Nonetheless, both the creation and innovation processes require an entrepreneur who plays a major role in making things happen. In a sense, this individual represents the independent seeking out of capital, revenue, and profit by innovative means (Keast, 1995). This so-called ‘individual' is a person who possesses entrepreneurial attributes and skills. The list of entrepreneurial skills and attributes is stated clearly by Gibb (1993) in his model of enterprising behaviours, skills, and attributes (Figure 1). Furthermore, Gibb and Cotton

(1998) also argued that these behaviours, which are backed up by a number of attributes, can be developed and gained in the course of studying (Guirdham and Tyler, 1992). This, of course, supports the view that entrepreneurship education can influence individuals to have in them these entrepreneurial attributes and skills (Gibb and Cotton, 1998). Thus, for this reason, entrepreneurship education has derived its importance specifically among individuals who desire to start their own businesses after completing their formal university training (Young, 1997).

Figure 1: Enterprising behaviours, skills and attributes



Source: adapted from Gibb (1997)

2.3 ENTREPRENEURSHIP EDUCATION

Entrepreneurship education is a term commonly used in Canada and the United States, whilst in the UK and Ireland (Garavan and O'Cinneide, 1994), the term is widely known as 'enterprise' rather than entrepreneurship education (Gibb, 1993). The term 'enterprise' here is described as focusing on the development of personal attributes, which is not necessarily linked with the development of an enterprise culture (Gibb, 1993). Whereas, Young (1997) defined entrepreneurship education as the structured, formal conveyance of entrepreneurial knowledge. This entrepreneurial knowledge refers to the concepts, skills, and mentality individual business owners use while starting and developing their growth-oriented businesses. Entrepreneurship education, however, sometimes seems to be linked to small businesses that are normally associated with stereotypic images of low-quality management (Laukkanen, 2000). As we often hear, the small business owner is viewed as someone who is seldom engaged in innovative practices (Garavan and O'Cinneide, 1994) and is therefore quite reluctant to grow the business. Entrepreneurship is considered more innovative in approach. Moreover, the concept of entrepreneurship itself, as well as entrepreneurial skills, also apply to large companies (Deakins, 1999, p.34), which is also known as ‘intrapreneurship' (Noll, 1993). Laukkanen (2000) has also differentiated clearly between entrepreneurship and small business management. It is said that entrepreneurship is more than the creation of a business, it is also concerned with innovation (Maranville, 1992) and the growth of the business, whilst small business is

more concerned with the functional know-how in the contexts of small firms (Cunningham and Lischeron, 1991; Malecki, 1997). Furthermore, Katz and Green II (1996) also stated that, in practice, small business is only one subdiscipline under entrepreneurship as well as other subdisciplines such as women-owned business, high-technology business, home-based business, and family business. This, therefore, suggests that education on entrepreneurship should not be restricted in the content to how to start and manage a small business (Noll, 1993).

Similarly, due to there being many definitions of 'entrepreneurship education', inevitably the courses concerned with entrepreneurship itself can consist of various types. According to Falkäng and Alberti (2000), the courses are mainly divided into two categories,

- Firstly, there are courses ‘about' entrepreneurs, entrepreneurship, and small business. The content tries to explain entrepreneurship and the importance of small business in the economy and society.
- Secondly, there are courses with the objectives of educating and training students in the skills they need to develop their own businesses, and these are sometimes called courses ‘for' entrepreneurship (Levie, 1999).

The former, as stated by Falkäng and Alberti (2000), are courses that have an outsider's perspective on entrepreneurship and where students remain at a distance from the subject, whilst the latter place emphasis on real-world and experience-based learning. In real situations, however, Levie (1999) reported that mostly, students are taught more ‘for'

rather than ‘about' entrepreneurship. This tended to prepare students with real entrepreneurial activity. In fact, Laukkanen (2000), in an attempt to define entrepreneurship education at the university level, has also stressed that entrepreneurship education as something concerned with learning and facilitating entrepreneurship and less with studying about it. Pragmatically, the field itself emphasises more about entrepreneurial didactics and much less on developing their conceptual underpinnings. Accordingly, Fleming (1999) has suggested the process of entrepreneurship education that emphasises providing for the transfer of conceptual and theoretical knowledge into practical application and the development of skills and aptitudes (Figure 2). As described by Fleming (1999), entrepreneurship education at the University of Limerick incorporates both formal and informal methods of teaching. The formal aspects of entrepreneurship education focus on providing the theoretical and conceptual frameworks that underpin entrepreneurship. This theory is delivered through didactic methods such as lectures and suggested reading. The informal aspects of entrepreneurship education focus on skill building, attribute development, and behavioural change. To achieve these objectives, inductive and discovery methods, which include case analysis, brainstorming, simulation, team projects, presentations, and small business consultancy, are used. These delivery methods allow students to integrate and apply the theory learned through more formal means. The role of the lecturer/tutor is crucial as he/she needs to strive for a balance between the academic and practitioner perspective of entrepreneurship education delivery methods. Therefore, it is best to follow a model such as in Figure 2, which provides multiple alternative structures and learning mechanisms to ensure that correct learning takes place. Besides that, this model also provides for the transfer of conceptual

and theoretical knowledge into practical application and the development of skills and aptitudes.

Figure 2: A process model of entrepreneurship education

Inputs	Process		Outputs
(Students)	Content Focus	Teaching Focus	
Prior knowledge base	Entrepreneurship	Didactic methods	Intangible
Personality needs	defined	Lectures	Goal
Interests	Environment	Textbooks	Achievements
Motivation	Innovation	Readings	Skills/knowledge
Role orientation	Creativity	Seminars	Confidence
abilities	New product		Decision-making
Work experience	development	Skills Building	Problem-solving
Effort	Market research	Case studies	Communications
Resources	Business planning	Group discussion	
	Management	Brainstorming	Tangible
	Marketing	Teamwork	Assignments
	Operations	Projects	Presentations
	Finance		Reports
	Legal issues	Discovery methods	Drawings
	Teamwork	Problem-solving	Prototypes
	Managing growth	Networking	Products
	Intrapreneurship	Consultancy	Exhibition
		Career planning	

Source: adapted from Fleming (1999*)*

However, the most fundamental aspect of entrepreneurship education would be the aim or objective that the entrepreneurship programme might be supposed to achieve. It acts as a guideline for choosing the courses, content, and the methods used in teaching the entrepreneurship programme.

2.3.1 Objectives of the entrepreneurship programme

As previously noted, the most obvious reason for the importance of entrepreneurship is its role in the development of our economic condition. Entrepreneurship encourages new

business formation, which is a critical element of economic development (McMullan & Long, 1990; Fleming, 1996). Thus, it is worthwhile also to note the main reason for the implication of entrepreneurship programmes in universities in relation to venture creation. Moreover, as summarized by Mason (2000), the rationale for introducing entrepreneurship education is described briefly as follows,

- It seeks to promote entrepreneurship as a legitimate career option for students.
- Increasing numbers of students definitely intend to follow entrepreneurial careers.
- Entrepreneurship education will enhance the employability of students in a rapidly changing graduate labour market by developing key skills: opportunity identification and appraisal, creativity, team working, and coping with ambiguity.

The objectives are usually based upon the creation of new business ventures as well as creating an individual with an entrepreneurial attitude and thinking as noted earlier. For example, Meyer (1992) has outlined some statements that should be considered in the development of a philosophy of entrepreneurship education. These statements are summarised as follows: ‘entrepreneurship education should incorporate in it the process of creation in a venture, thus preparing students for entrepreneurial opportunities and increasing the probability of success in that venture'. Besides, Kourilsky and Carlson (1997) also stressed that entrepreneurship education should be based on,

- The identification of market opportunity and the generation of business ideas,
- The marshalling and commitment of resources in the face of risk to pursue opportunity, and

- Creating a business organisation to implement opportunity-motivated business ideas (Kourilsky, 1995; Sahlman and Stevenson, 1992).

For example, in Ireland, as a result of the increased awareness of the benefits of enterprising skills, entrepreneurship education has been widely introduced in Irish universities with its major objective that helps in developing enterprising people and to inculcating an attitude of self-reliance through the process of learning (Fleming, 1999)

Accordingly, in general, the objectives of entrepreneurship education are as follows,

- To provide a general knowledge of entrepreneurship (Garavan and O'Cinneide, 1994) specifically on the role of the entrepreneur and the entrepreneurial process (Fleming, 1999; Hisrich and Peters, 1998).
- To develop the skills and attributes necessary for entrepreneurship (Garavan and O'Cinneide, 1994; Vesper and McMullan, 1988; Hisrich and Peters, 1998; Fleming, 1999).
- To encourage new start-ups and other entrepreneurial ventures (Garavan and O'Cinneide, 1994) and know-how to manage and grow a new venture (Hisrich and Peters, 1998), and
- To develop, acquire or merge a business (Hisrich and Peters, 1998).

In addition, these objectives can actually be classified into two different levels of objectives. As Mason (2000) reported, in his recent studies to six UK universities, Paisley, Stirling, Robert Gordon, De Monfort, Napier and Strathclyde, the entrepreneurship centres mostly on having two levels of objectives,

- Firstly, at an intellectual level, to indicate the importance of entrepreneurship in the economy and develop knowledge about the process of entrepreneurship.
- Secondly, at the practical level, to develop entrepreneurial competencies so that students are equipped to start their own businesses or take on an entrepreneurial role in existing organisations.

In fact, Levie (1999), in his report, has clearly distinguished the objectives according to whether the entrepreneurship programme is studying ‘about' or ‘for' entrepreneurship. The first would be more concerned with the theoretical part of the entrepreneurship whilst the latter might be concerned with providing the participants with real world and experience-based learning. This actually implies the same as the one mentioned above, since the first one is actually focused more on studying ‘about' entrepreneurship while the second part is more ‘for' entrepreneurship. In addition, Kourilsky and Carlson (1997) have differentiated the entrepreneurship programme or ‘curricula' based on the goal of the programme.

- Entrepreneurship awareness curricula – the programme with goals both to introduce students to entrepreneurship as a career alternative and to the role of the entrepreneur in the economy.
- Entrepreneurship readiness – the programme that provides basic knowledge of the concepts and first-level skills of entrepreneurship.
- Entrepreneurship application curriculum – the programme that has its students practice their skills and behaviours through actual entrepreneurship experiences.

Evans and Hanson (1998) described an entrepreneurship career path as consisting of five unique stages; foundation, awakening, specialisation, creation and maturing. This reinforces the theory that there is a constant interaction between the entrepreneur and the environment. Therefore, it is vital to consider the level of education of the audience before any attempts are made to set up the objective of the programme as in Figure 3. For example, as described by Albert and Marion (1997) in Figure 3, the sensitisation phase is described as the level where questions such as, 'Why should I be an entrepreneur?' are addressed. In addition, the maturing phase introduces both the concept of life-long learning and the fact that the education process must also reinforce the value of entrepreneurship.

Figure 3: Entrepreneurship Education: Albert and Marion (1997)

Action	Level	Objectives	Teaching Methods
Sensitisation	Primary Secondary University	Develop autonomy and initiative Respond to the Question: why should I be an entrepreneur?	Mini-projects, case studies, interviews with entrepreneurs, business Simulations, business plans competitions.
Specialisation	Secondary University	Understand the diversity of entrepreneurship. Respond to questions like: What does it take to be successful Entrepreneur?	Specialised courses, real case studies, company projects.
Experimentation	Secondary University	Permit students to work on their own projects or 'sleeping' projects in companies	Realisation of a project.

Source: adapted from Ouvrir l'enseignement à l'ésprit d'entreprendre, Phillippe Albert and Stéphane Marion, from L'art d'Entreprendre, Les Echos, 19 & 20 September 1997

Besides that, in practice, Levie (1999) reported that entrepreneurship education is actually addressed to various levels of education ranging from postgraduate degrees, undergraduate degrees, diplomas, and certificates courses. It is even offered in secondary schools as stated by Gibb and Cotton (1998). In Scotland itself, for example, Yendell

(1997) stated that as a strategy for improving the business birth rate in Scotland, entrepreneurship programmes are given to both school levels, primary and secondary, in the community as well as in further education and the universities. Nonetheless, as stated by Mason (2000), it is the university commitment to extend the provision of entrepreneurship education to all undergraduate and postgraduate students. Yendell (1997), however, reported that some universities even offer the programme to only the undergraduate level that has the support of students with core disciplines throughout the university. This is supported by a study done by Mason (2000), which shows that some participating universities (as mentioned earlier in the previous chapter) provide the programme to undergraduates across the university, such as Napier University and Robert Gordon University. Mason (2000) also described that the extent to which entrepreneurship is embedded across the institution varies between the universities. For instance, Babson College is unique in terms of the dominance of entrepreneurship: 300 of the 2000 students at the college follow an entrepreneurship concentration, and 75% of students take entrepreneurship courses. Besides that, amongst the universities in the British Isles, Robert Gordon University teaches entrepreneurship to 600 students across the university, which also teaches engineering, architecture, design, art and hospitality. Meanwhile, the University of Limerick has 500 students, De Monfort University has 65 students, and the University of Stirling has 37 students. However, perhaps the most significant of all are the content and the method used in teaching the field, as described previously in Figure 2, in which the core entrepreneurship education process forms the content focus and the teaching focus of the programme. Therefore, it is crucial to look at

the contents and the teaching methods used in ensuring that the objectives chosen at the initial stage of the development of the programme are achieved.

2.3.2. Contents of the entrepreneurship programme

As the nature of entrepreneurship itself is always associated with innovativeness and job creation (Lumpkin and Dess, 1996), the contents of the programme itself are, therefore, more concerned with developing individuals who can create a new business venture. Furthermore, as stated by Kourilsky and Carlson (1997), in developing an effective entrepreneurship programme, there are some ‘habits' (Table 1, Appendix 1) that should be taken into consideration, which are summarised as entrepreneurship should be ‘about' entrepreneurship and experiential. Thus, some of the programme contents are developed to teach the individual about entrepreneurship as well as the main areas in the process of creating a new business venture as outlined below (Noll, 1993).

- Defining entrepreneurship is done to understand the difference in the definitions of entrepreneurship and the changing profiles of the entrepreneur, small-business owner, and intrapreneur.
- Completing a self-assessment, therefore, can help the participants in developing entrepreneurial characteristics within themselves.
- Creating an idea is about finding ways to create a new venture.
- Developing business plan teaches the student other business subjects such as how to make marketing, financial, and organisational plans.

- Running the business provides a discussion on how to get the business started and on how to keep the business going.

In response to this, as indicated in Table 2 (Appendix 2), Mason (2000) reported that there are various courses offered by participating universities in his study. The courses offered are varied, but in essence, they conform to the following model of,

- An introductory course in entrepreneurship covering theory and concepts, where the assessment may take the form of a case study analysis or entrepreneur interview.
- A more advanced course on new venture creation that requires students, working in groups, to come up with a business idea and write a business plan for it.
- A new venture management course that involves groups of students working with small businesses typically on a consultancy project (e.g. marketing-related) as in Robert Gordon University.

Mason (2000) also reported that in some institutions, the first and second courses, combined with the contact hours for the introductory course, are typically two hour lectures and a one hour of tutorials, whereas in the more advanced courses, the lectures are normally concentrated at the beginning of the course, with students working in their groups on their business plans or consultancy with tutorial support.

- Gartner and Vesper (1994) described that the standard entrepreneurship courses normally include venture plan writing or new venture management (Gartner and Vesper, 1990), while some programmes might include other business subjects such as

management, marketing, and finance (Plaschka and Welsh, 1990) as stated earlier by Noll (1993).

In fact, Fleming (1999) stated that at the University of Limerick campus, the aim of the entrepreneurship programme is to produce graduates who are capable of being innovative and who can recognize and create opportunities, take risks, make decisions, analyse and solve problems, and communicate clearly and effectively. Therefore, the entrepreneurship programme is inter-collegiate and university-wide. It covers the entire scope of business administration such as management, marketing, operations, and finance. The courses take a broad, integrative, and rational approach to business that is increasingly in demand not only for potential entrepreneurs but also for those who aspire to be managers and top executives.

In relation to this, Duke (1996) has also listed some of the courses that are normally listed or included in the entrepreneurship programme (Table 3) (Appendix 3). This table actually gives a frequency count of entrepreneurship courses at various schools with the most popular courses such as ‘introductory courses' including ‘new venture creation' courses. Small business management, also used in this listing, is related to ongoing management after venture creation as well as financial planning and capital development, indicating an emphasis on funding. Other follow-on courses generally involved an advanced analysis of how entrepreneurs should operate. In addition, the combination of directed studies, experiential programmes, and internships illustrated the variety of active learning methods used to give students hands-on experience with entrepreneurial

problems and solutions. Therefore, besides all contents that might be included in the programme, it also crucial to specify the method used in teaching the programme if the programme were to benefit the participants of the programme.

2.3.3 Teaching methods

Entrepreneurs, who have historically been renowned for developing their businesses through their own experiences rather than formal study, perhaps, create a challenge for entrepreneurship educators in creating appropriate classroom and project situations in which learning of this nature takes place (Yendell, 1997). Besides that, as stated by Garavan and O'Cinneide (1994), to be effective, an entrepreneur needs to employ different learning styles, including concrete experience, reflective observation, abstract conceptualisation, and active experimentation. The pedagogical methods should inevitably be in sequence with the learning styles as described in a model by Kolb, Rabin, and McIntyre (1974) that presents a grid of learning styles and pedagogical techniques as described in Figure 4.

"It is described that on the active experimentation/reflective observation dimension, our understanding of entrepreneurial behaviour indicates a primary preference for action. Opportunities and innovative ideas must be followed through to activate entrepreneurship. Thus, an entrepreneur would be expected to favour active experimentation rather than reflective observation. It should be noted, however, that action in the absence of reflection precludes learning (Kolb, Rabin, and McIntyre, 1974). On the abstract conceptualisation/concrete experience dimension, the preference of the entrepreneur is not so distinct. In fact, the conflict between concrete experience and abstract conceptualisation leads to what Kolb, Rabin, and McIntyre (1974) refer to as 'creative tension'. It is said that to be creative, one must be free of the constraining focus

of abstract concepts in order to experience anew. It is also then described that the pedagogical methods which are best suited to an entrepreneurial learning style are those presented in quadrants III and IV of the learning grid."

Figure 4: Conceptual Grid of Learning Styles and Pedagogical Techniques

<table>
<tr><td colspan="2">Concrete experience</td></tr>
<tr><td>III Active-applied
Changes in skills and attitudes
Role plays
Management simulation
Processing discussion
T-groups/encounter groups
Learning diaries
Field Projects
Management of learning groups
Counselling</td><td>II Reflective-applied
Changes in application
Motives
Applied lecture
Limited discussion
Cases
Role plays
Problem-oriented exams
Programmed instructions with emphasis in skills</td></tr>
<tr><td><u>Active experimentation</u>

IV Active-theoretical
Changes in understanding
Focused learning groups
Argumentative discussion
Experiments/research
Suggested readings
Analysis papers
Workshops
Monitoring
Coaching</td><td><u>Reflective observation</u>

I Reflective-theoretical
Change in knowledge
Theory lectures
Required readings
Handouts
Programme</td></tr>
<tr><td colspan="2">Abstract conceptualisation</td></tr>
<tr><td colspan="2">Source: adapted from Randolph and Posner(1979)</td></tr>
</table>

In practice, however, in the typical educational and training situation, the future entrepreneur is most likely to encounter the reflective style depicted in quadrant I (Chikering, 1977). Furthermore, this traditional teaching approach focuses on developing

a participant's mastery of various abstract concepts which can be integrated into a framework for a given business discipline (McMullan and Cahoon, 1979). It is also said that performance is evaluated by testing the participant's ability to recall various abstract concepts. The rational approach performs its intended purpose well, which is the acquisition of knowledge on the part of the participant. Besides that, Garavan and O'Cinneide (1994) also stated that the entrepreneurial-directed alternative to the traditional teaching approach is one that requires the instructor to become a learning process facilitator. Such an approach entails extensive use of learning exercises such as role playing, management simulations, structured exercises or focused learning feedback situations in which participants must take an active role. The traditional "listen and take notes" role of the participant is minimised. After participating in the learning exercises, participants reflect on their experience and develop generalisations through small discussion groups. The discussion groups develop hypotheses, based on their learning experiences, which are further tested with additional learning exercises. In this way, all four learning abilities are eventually used and developed, much as they would be in the typical entrepreneurial situation. Garavan and O'Cinneide (1994) also stated that as just Kolb's model does not favour one learning style over others, neither is there one best pedagogical approach for all programmes.

In addition, Levie (1999), who has differentiated two types of entrepreneurship courses, also stated that in practice, there is a major difference in the choice of teaching or learning due to the difference in the types of entrepreneurship courses. This is described

in Figure 5, which presents how the teaching and learning methods in courses ‘for' and ‘about' entrepreneurship contrasted (Levie, 1999).

Figure 5: Teaching and learning methods in courses ‘for’ entrepreneurship and ‘about’ entrepreneurship contrasted (Levie, 1999)

Courses for entrepreneurship	Courses about entrepreneurship
• Case studies • Guest Speakers • Group Projects • Group business plans • Student oral presentation • Class participation assessed	• Lectures • Set text • Individual essays • Individual end of term written exams

Source: adapted from Levie (1999)

As we can see in Figure 5, more effort was put into the production of in-house cases for ‘for' entrepreneurship type of courses than for ‘about' entrepreneurship type of courses, which created a much richer learning experience.

Besides that, Yendell (1997) also stated that some universities also practice experiential learning, in which the students actively participate, by analysing case study situations, working on projects in teams, making presentations, and learning interactively through computers. Furthermore, Mason (2000) has described in detail the method of teaching in

those participant universities involved in his study. He reported that the method of teaching entrepreneurship that is normally used is as follows,

- The emphasis is on learning from real, complex business situations.
- Entrepreneurship is taught interactively with the use of case discussions, class-based projects, role play, and student presentations in which ideal cases are those that are less than three years old with real financials, where the entrepreneur is willing to visit the class on at least one occasion (and can be video taped). It is also stated that this favours local cases rather than those from textbooks or case clearing houses.
- There is a strong emphasis on group works in which business plans development and the small business consultancy project is done in groups. These groups would include a mixture of students studying for different degrees.
- Student presentations form unimportant components of classroom and tutorial activity, and student assessment with students are expected to take position on the case study discussion points.

For example, Mason (2000) also stated that the University of Limerick in Ireland has established a student enterprise centre which acts as a resource-base and workplace for student groups working on business plans and consultancy assignments and a venue for meeting or discussions between faculty and students. He also emphasises that the style of teaching is best done with ideal numbers of 25-30, and a maximum of 40, and groups no larger than four. In cases where a large group was involved in a class, it is best to adopt a multi-media delivery. For example, in his report, Mason (2000) stated that at the University of Strathclyde, the course of ‘Introduction to Business Start-up', which has

just over 100 students, is a computer-based course in which students learn through interactive self-study sessions. Whilst, he also stated that at the University of Stirling, each of the courses is supported by websites which contain literature reviews and synopses, case studies, tests, quizzes and web links that are also utilised in the lectures. In the meanwhile, Babson College uses its e-campus to make the syllabus and PowerPoint presentations available, with questions and votes, discussions, and faculty feedback facilities.

On the other hand, Mason (2000) also stated that the extent to which multimedia provides a means of overcoming the resource constraints noted above is debatable as,

- Considerable resources are required to develop the material for its delivery.
- The exclusive use of multi-media delivery involves a loss of learning through classroom discussion.
- Considerable staff resources are still required to support tutorials and groups.

Besides that, Mason (2000) has also highlighted that the activity-based approach to teaching entrepreneurship raises two particular difficulties. It can be problematic if there is no institutional culture of class-based participation or if students are simply attending for the credit rather than because of genuine interest. It requires substantially more front-end preparation and planning by the teacher compared with the chalk-talk approach used in conventional teaching.

However, Yendell (1997) described that the approaches used in teaching vary depending on the topic or issue being taught. For instance, in the University of Strathclyde, the

classes are not structured rigidly within the individual disciplines of a vertically structured business school but rather addressed the issues in a more holistic, multidisciplinary manner. Such approaches include,

- Open-ended case studies
- Entrepreneurs in class
- Guest presenters
- Group projects
- Video case studies
- Multimedia
- Computer aided learning
- Workshops.

In addition, the entrepreneurial learning process can be enhanced through the provision of a role model (Gorman, Hanlon, and King, 1997) and the involvement from the real entrepreneur (Weaver, 1999). Besides, the issue of involvement from non-academic or real entrepreneurs is addressed in various ways by academic institutions, which is stressed by Weaver (1999). Some universities viewed involvement from real entrepreneurs as crucial, and some might be good teachers while some might not. In fact, Gartner and Vesper (1994) also pointed out that the involvement would lead to both successes and failures. It is argued that some instructors using outsiders met with failure when these individuals did not address assigned topics or when outsiders lacked necessary presentation skills. Mason (2000) also reported that most of the institutions visited in his study seek to bring entrepreneurs and other visitors into the classroom

so as to add real-life experiences, convey knowledge, and thereby enhance the learning of students. However, their involvement ranges from being involved in the discussion of their own cases and guest lectures through to the delivery of part or all of a course. Mason added that there was a clear consensus, in the six institutions visited, that it is extremely valuable to bring entrepreneurs to the classroom when their cases are being discussed. For example, Robert Gordon University has developed a group of 20 to 30 entrepreneurs who are willing to participate in entrepreneurship teaching, as well as Napier University, which has a similar number available. It stated that entrepreneurs are very willing to become involved in this way. Meanwhile, the University of Stirling, which does not make much use of entrepreneurs in the classroom, instead uses extensive video clips to support student learning.

Unfortunately, however, Mason (2000) also warned that involving entrepreneurs in teaching is a risk as their ability to perform in the classroom is unknown. Entrepreneurs who are brought into the classroom as occasional guests need to be given a focus and need to be informed in advance of the teaching points so that they can structure their story to maximum effect, or, otherwise, they will simply tell war stories if they are given the floor. For this reason, Robert Gordon University requires the entrepreneurs that they use to undergo an induction course on how to behave in the classroom. Babson requires adjunct staff to shadow faculty for a year before being allowed to teach on their own. These institutions viewed the willingness of visiting or adjunct staff to go through this training as a signal of their seriousness to be involved in entrepreneurship education.

Accordingly, Mason (2000) also stated that most institutions use entrepreneurs in one of two ways.

- The entrepreneurs first observed a class discussion about them or their business (ideally without the students realising). They will then be revealed to the class and explain why they took the course of action they did and did not follow routes suggested in the discussion. This, however, has led to the implications that emphasise the need to develop local cases.
- Or have entrepreneurs used in an interview situation in which they respond to questions from either the teacher or the students.

Furthermore, as entrepreneurs identify opportunities, create ideas, and decide on their actions on the basis of a mixture of creativity, rational analysis, and intuition, it is assumed that creativity is the key issue in teaching entrepreneurship (Yendell, 1997). This stresses the point that it is important to emphasise creativity learning among students. But, perhaps, the most significant of all is the role of the educators. The educators are the ones who are argued to serve as role models to the participants (McMullan and Long, 1990). As stated by McMullan and Long (1990), since entrepreneurship is the first thing in an attitude of spirit, the choice of educators is important. Therefore, as described by Garavan and O'Cinneide (1994), the programme facilitator normally performed a multiplicity of roles as described in Figure 6.

Figure 6 : Dimensions of Programme Facilitation

Role type	Dimensions of role	Time performed by programme facilitator (per cent)
Counsellor	Motivate and reassure participants Encourage self-discovery and self-managed learning Develop individual problem-solving capabilities Help explore options	55
Coach	Communicate complex ideas and knowledge Develop entrepreneurial skills Provide feedback on business plans, etc	25
Mentor	Motivate and encourage participant Facilitate the development of contacts/networks Communicate norms/values of entrepreneurship	15
Consultant	Offer expertise on business plans and project ideas Assess the feasibility of business venture ideas Set up contacts with financial institutions Demonstrate a good knowledge of the business world Sit on panels to screen projects	50
Role model	Demonstrate entrepreneurial behaviour Have an internal focus of control Demonstrate positive attitudes towards risk Provide personal experience of the entrepreneurial process Have a high level of credibility	100
Guide	Guide high-technology entrepreneurs towards appropriate experts Identify possible sources of resources which can then be explored by participants	20
Note : Programme leaders performed multiple roles hence the figures do not add up to 100 per cent		

Source: adapted from Garavan and O'Cinneide (1994)

In Figure 6, Garavan and O'Cinneide (1994) described that the programme facilitator or educators are said to perform a multiplicity of roles. The key roles used were those of counsellor, coach, mentor, consultant, role model, and guide. Some of the roles were performed simultaneously; therefore, the overall total does not total up to 100 percent. It is said that the dominant roles played or performed were those of role model, counsellor and consultant.

In addition, although the most played role might be as a role model, a counsellor and a consultant, mentoring is said to be an important role as well. As stated by French and Püchner (1999), it usually found that the potential entrepreneur, although very self-confident, is not adequately aware of his or her shortcomings and needs mentoring, coaching and training. At the same time, they also stated that those who are aware of their shortcomings are not necessarily aware of the support schemes available. Mentoring is a time-consuming process, and so it is not easy to develop a pool of skilled and able mentors. Furthermore, French and Püchner (1999) also stated that the lack of mentoring can be overcome by enabling students and entrepreneurs to gain experience inside a company to learn about business management, contacting clients and financing. Successful examples of this can be found in Ireland and Norway (EUROPRISE).

Besides all the methods used in teaching the entrepreneurship programme, it is also important to take into account the length of period or find the appropriate time for introducing the entrepreneurship to the participants of the programme to ensure the

maximum exposure to the entrepreneurial environment in order to help them to develop the entrepreneurial attributes within them.

2.3.4 Period and level for teaching the entrepreneurship programme

The period of study for entrepreneurship courses varies depending on the university. The courses are also offered at different levels to the students. Garavan and O'Cinneide (1994) described that entrepreneurship education is frequently of very short duration compared to other educational programmes concerned with helping people embark on a major career. Garavan and O'Cinneide (1994) also added that the programmes that last as little as a few days would seem absurd when set against the knowledge and complexities of the multifunctional task of successfully operating a small business, which often involves considerable capital investment and responsibility for meeting the needs of customers and employees. In fact, Garnier and Gasse (1990) reported that a 16-week programme is good enough in encouraging the participants to start their own venture within 18 months after completing the course.

On the other hand, as reported by Mason (2000), typically, at the university level, the programme is offered as an elective to business studies students and is available in any year of study but is commonly offered to third (penultimate) and fourth (final) year students. Mason (2000) also reported that in most cases, the programme is designed to be progressive with an introductory or ‘taster' course that serves as a prerequisite for the other courses. For example, Napier University offers an introductory course for first-year

students. Meanwhile, other universities, such as the University of Stirling, Heriot-Watt University, and Babson College, offer a ‘taster' as part of a general first-year business studies course, and both the University of Strathclyde's and Robert Gordon University's entrepreneurship courses are only offered as electives. However, Mason (2000) added that at the remaining UK and Irish universities entrepreneurship courses comprise a compulsory part of a programme, typically one that has a strong vocational element. Moreover, French and Püchner (1999) stated that, generally, it was agreed that the subject should be integrated into the education system at the earliest possible opportunity as the entrepreneurial spirit should be nurtured and encouraged throughout the whole educational process.

However, in order to identify the best practices in conducting the programme, it is good to look at how the programmes were conducted in practice as opposed to the theoretical opinion given in this chapter. This could be done by interviewing those people who were involved directly in developing and teaching entrepreneurship programmes at the university level.

CHAPTER 3 RESEARCH METHODOLOGY

This study examines some universities in Scotland that provide an entrepreneurship programme at any level in their universities. As discussed in the previous chapters, some key areas such as objectives, contents, and teaching method are discussed further in the literature review section (Chapter 2). All the literature reviews were actually gathered from all sources of information, including internet sources and journals, which were collected from some universities in the UK. The data that is discussed is mostly in the areas of entrepreneurship education as mentioned above. However, in order to identify the best way to conduct the programme, it is best to compare the information gathered through the secondary method with the information gathered from the primary method, such as through observation and interviews as used in this study. The reason for the comparison is to get the real picture of how the programme is practically conducted so that it is possible to come up with the best practices in conducting the programme.

Accordingly, for this purpose, a few universities in Scotland as well as in England were chosen for this study. The participant universities included established universities that have conducted entrepreneurship programmes for several years as well as universities that plan to have the course in the near future. Most of the participant universities are Scottish universities such as the University of Aberdeen, University of Strathclyde, University of Paisley, Robert Gordon University, Abertay Dundee University, Glasgow Caledonian University, and, finally, the University of Durham, which is the only English university that participates in this study. The reason for

choosing the University of Durham is because it is well-known for its centre in entrepreneurial studies. Furthermore, this study focuses only on Scottish universities as the other English universities are situated further away from the author's place of residence, and it is more convenient to choose universities in Scotland in terms of collecting the data. Besides that, this is also all about Scottish practices, resulting in part from Scottish funding; therefore, it is better to have the Scottish entrepreneurial centre in Scotland itself. In addition, this study would in a way be helping to create an entrepreneurial study specifically in Scotland. However, the limited scope of this study will not defeat the purpose of conducting the study. This is because extensive research has been done recently by Jonathan Levie (1999) with a focus mainly on English universities. Therefore, it would still allow for the comparison to be made. Nevertheless, although some universities in Scotland are not participating in this study, a comparison could also possibly be made with a recent study also done by Colin Mason (2000) of almost all Scottish universities. This study would also take into consideration a course done at Babson College in North America, one of the leading institutions in entrepreneurship programmes, which was also covered in the study done by Mason (2000).

In addition, with the aim of identifying the best practices for conducting the programme, the author also conducted an email interview with some universities that have entrepreneurship courses. The main reason for carrying out this method is because it is better to come up with the best practices from all the information gathered from various universities that conduct the entrepreneurship programme. However, due to certain

constraints, the author has to conduct an email interview with the respondents in which, a list of open-ended questions were sent out through email as a substitute to a one-to-one interview. The participants in the email interview were those universities located further away from the author's place and were chosen randomly based on the information gathered through the internet about the entrepreneurship programmes offered by these universities. In fact, some of the respondents for the email interview were chosen based on their publications of articles on the topic of entrepreneurship education. The participating universities for email interviews are London Business School, University of Coventry, University of Finland, and some universities mentioned above, which is a total of 10 universities. However, the information gathered is not sufficient; therefore, the study has mainly concentrated on data from the interviews. In addition, to ensure a thorough study is done, this study has also included an Irish university represented by University of Limerick with information gathered based on the paper published by Patricia Fleming (1999). Nonetheless, there is no interview done for the University of Aberdeen since the author is fully aware of the entrepreneurship programme conducted by the university since the author is one of the participants in the entrepreneurship programme. Therefore, the information would only be based on the observations and experiences of the author.

3.1 Interview

An interview was chosen as the primary method for gathering the primary data since this method is very helpful for gathering data in a very extensive way. As stated by Hughes

and Ackroyd (1992), an interview is an encounter between a researcher and a respondent in which an individual is asked a series of questions relevant to the subject of the research with the purpose of getting access to a vast storehouse of information. Questionnaires are used with or without an interviewer with the respondent completing the questionnaire with the guidance provided by the written instructions on the questionnaire itself. Usually, the answers given are very restricted to whatever was asked on the questionnaires. Therefore, it limits the information that is gathered. However, in this case, an interview is very important since the purpose of this study is to get information on how the programmes are conducted. Therefore, it is vital to get only one respondent to represent one university, which is normally the director of the programme since he or she can provide the syllabus of the programme along with the information on the method used in teaching the programme.

In this study, the chosen respondents are based upon the person who was actually involved in the programme at the very initial stage of the development of the programme or at least an experienced lecturer in the field. In this study, there were 12 total respondents from eight universities, consisting of four Scottish universities and four English universities. Besides that, in the interview, the respondents are asked questions such as the objective of the programme, the contents of the programme, the method used in teaching the programme, and, finally, the problem related to the programme. Observations have also been made regarding getting data from the author's university (the University of Aberdeen).

Besides that, it is important to note that this study has been purposely done in order to identify the best practices for conducting the programme. Therefore, information is needed from both the interviews and the literature review so as to allow a comparison to be made. However, the interviews were done by only a few universities regarding those recent studies conducted; therefore, the information from the interviews is also best supported by these studies, which are basically from the literature review.

3.2 LIMITATIONS IN THE METHOD

As mentioned earlier, some constraints occurred in conducting the interviews, thereby limiting the information gathered during the interviews.

- Time constraints

  This study was conducted during the summer holidays; therefore, most of the respondents were away for their summer vacations. This limited the choice of available respondents, resulting in the limitation of the number of universities that could participate in this study.

- Problems during the interviews

  Most respondents were staying further away from campus. Although email interviews were done, the information gathered was still not enough since some respondents had replied to the email within a very short period and given brief answers to every question due to the time constraints they had. Due to this, the information they gave sometimes did not really explain the concepts applied in their entrepreneurship programmes.

CHAPTER 4 - ANALYSIS OF FINDINGS

In attempts to identify the best practices in conducting the entrepreneurship programme, a series of interviews was also carried out by interviewing those people involved in developing and teaching the programme at the university level. There were few universities participating in this interview represented by either the director or lecturer of the programme. The reasons for choosing these universities are explained clearly in Chapter 3. As mentioned before, there are six participating universities in this study: the University of Durham, the University of Strathclyde, the University of Paisley, Abertay Dundee University, and Glasgow Caledonian University. However, due to some reasons, the information for Robert Gordon University is not included in this chapter.

In the interview, various issues that are covered in Chapter 2 were also addressed to the respondents, especially issues such as the objectives of the programme, the contents of the entrepreneurship programme, the methods used in teaching the programme, and other issues in the entrepreneurship programme. Besides that, instead of the information given by those respondents representing their universities, this chapter also highlights any individual opinions given by those respondents during the interview.

4.1 Objectives of the programme

All participating universities have their own objectives in conducting the programme. Table 4 shows the summary of all the objectives given by those universities:

Table 4: A summary of objectives for the entrepreneurship programme

University of Durham	• To allow participants to consider the benefits entrepreneurial behaviour can bring to the participants as well as their organisations. • To explore how innovation and change can be implemented to enhance the overall competitiveness and sustainability of the business
University of Strathclyde	• To provide Strathclyde students with knowledge, confidence, and skills to practice entrepreneurship so that they may make a profound difference to the well-being of Scotland and the global economy. • To promote entrepreneurship as a socially desirable career option for students, staff, and the wider community
University of Paisley	• Developing the skills of both students that not necessarily meant to start a business after graduating from the course as well as students with the intention to start a business upon graduation. • To work with local firms on some projects specifically in setting up a business. • To raise an awareness as well as to work more closely with the policymaker in the area.
University of Aberdeen	• To enable graduates from any background to acquire the knowledge, skills, and professional network that will enable them to become outstanding managers in growing businesses, and when identifying the right opportunity, to become entrepreneurs themselves.
Glasgow Caledonian University	• To establish an environment within the university and external to it where entrepreneurship can develop through the systematic study of self or others and the processes required to establish or reform the value system appropriate to internalising the concept of entrepreneurship.
Abertay Dundee University	• To prepare students to be able to contribute effectively as enterprise and innovation leaders within the organisations they own or work for

As we can see, in Table 4 above, most of the objectives summarised are seen to have these themes in their objectives,

- To provide the knowledge of entrepreneurship
- To develop entrepreneurial skills
- To develop the entrepreneurial environment
- To create enhance the employability of students.

Besides that, Prof Alan Gibb, the Former Director of the Centre for Entrepreneurship at Durham Business School, University of Durham has stated that, before any attempts are made in setting up the objective, the people involved should at least,

- Define entrepreneurship. By defining the term entrepreneurship, it will help them in creating knowledge that should be imparted to the students.
- Understand why they are doing it. For instance, the entrepreneurship programme probably should be designed around the idea that the world is becoming more complex and uncertain.

In addition, Anne Kirk from Glasgow Caledonian University also stated that the student experience of entrepreneurship is not only theoretical but practical. Students should be exposed to and interact with entrepreneurial environments and behaviours. Jane Bower, who is also from Glasgow Caledonian University, has also stated that the objective actually depended upon the role it is to fill in the university and the community. It depends on two targeted groups:

Undergraduate level

- To encourage entrepreneurial attitudes and capabilities in undergraduates throughout the university. The courses offered to address different future employment situations, not just the start-up firm. Besides that, corporate entrepreneurship teaching is offered through several specific courses for the public sector, engineering, and general management students.

Postgraduate level

- To support the learning and other needs of graduates who specifically wish to start new ventures. The provision is extended to flexibly address the needs of any aspiring entrepreneur in the west of Scotland.
- It also aims to encourage more entrepreneurial management generally by offering an MBA as the option for this.

John A. Willsdon from Abertay Dundee University also stated that the objective of the programme should aim to provide knowledge to those who have a business idea but have no business knowledge.

4.2 Contents of the programme

Due to the differences in the objectives that these universities have, the contents of the entrepreneurship programme also different from one university to the other.

Table 5: A summary of contents of the programme

University of Durham	• The changing entrepreneurial society • Personal development of entrepreneurial behaviour • Business development process • Design and development of entrepreneurial organisations • Understanding the task environment • Managing the entrepreneurial culture
University of Strathclyde	***Undergraduate level*** • Entrepreneurship Introduction to business start-up (computer-based learning) • Entrepreneurship: Personal creativity • Entrepreneurship: New venture creation • Entrepreneurship: Knowledge-, science-, and technology-based businesses • Entrepreneurship: Starting an internet-based business • Entrepreneurship: Finance and the growing business • Entrepreneurship: Venture management ***Postgraduate level*** • Opportunity recognition • Assessing resources • Technology venture management • Entrepreneurship company-based investigations
University of Paisley	• Entrepreneurship and enterprise A • Entrepreneurship and enterprise B • Managing a growing a company • Entrepreneurship and technology • Finance and entrepreneurship • Comparative entrepreneurship • Entrepreneurship in large firms and the public sector

University of Aberdeen	• Enterprise creation I and II • The business environment • Business organisations • Business development • Research skills for business With few electives courses such as, • Marketing • Human resources management • Information management • Strategic management
Glasgow Caledonian University	• The entrepreneurial process management of the growing business • The management of financial resources Information technology • The entrepreneur and the environment • Business finance and taxation • Marketing and emerging business venture • Laws for the new business
Abertay Dundee University	• Understanding entrepreneurship • Product and market definition • Accounting for business enterprise • Organisation and decision analysis • Business growth strategies • Business concept and marketing plan (Project module 1) • Financial and operations plan (Project module 2)

As we can see in Table 5, although there are various subjects offered by the university, it can be summarised that in general, the courses are actually about,

- Understanding entrepreneurship
- The new venture creation process
- Other business-related subjects.

Besides that, Dr. Jonathan Levie from the University of Strathclyde mentioned that the programme in the University of Strathclyde is more ‘for' entrepreneurship rather than ‘about' entrepreneurship and is seen to have more subjects related to the development of skill in the creation of new business ventures rather than providing knowledge about entrepreneurship.

On the other hand, Prof. Dr. David Deakins from the University of Paisley stated that the University of Paisley, which has the objective of developing entrepreneurial skills among students and creating an awareness of the benefit of the entrepreneurship programme, is said to have a specialised module in teaching entrepreneurship programmes. The modules are Entrepreneurship A, focusing more on developing student skills appropriate to undertaking entrepreneurship and enterprise. Entrepreneurship B is meant to develop student skills including negotiation and problem solving. It is built upon links established in Entrepreneurship A. The reason for having this specialised module is to help the student to raise awareness concerning the benefit of entrepreneurship.

Furthermore, Jane Bower from Glasgow Caledonian University has also mentioned that the contents should complement students' needs so that they can achieve the outcomes required. On the other hand, these contents should also be introduced in management modules, finance modules, and entrepreneurship modules but all in the context of start-ups, growth, and small management enterprise.

4.3 Methods used in teaching an entrepreneurship programme

The differences in the universities' objectives have led to the differences in the methods of teaching used by all participating universities.

From Table 6, the methods used in teaching the subjects normally differ on whether the subjects are to teach about the knowledge of entrepreneurship or to develop the entrepreneurial skills. As we can see, almost all universities are adopting both the traditional methods of learning as well as the active mode of learning in teaching the subjects. This is due to the reason that entrepreneurship programmes are sometimes meant to provide knowledge about entrepreneurship to the students as well as to develop entrepreneurial skills among the students. It also said that in teaching about the knowledge of entrepreneurship, the use of lectures, tutorials, and case studies are used. On the other hand, an active mode of learning is used especially in the development of the entrepreneurial skills among students. The active mode of learning includes presentations and discussions.

Table 6 : Methods used in teaching entrepreneurship programme

University of Durham	• Case Study • Presentations • Debates • Discussions
University of Strathclyde	• Participation among students • Active learning • Case studies • Discussions
University of Paisley	• Producing reports • Organise events • Inviting entrepreneur as a guest speaker • Lectures • Tutorials • Project • Independent study • Formal assessment
University of Aberdeen	• Case studies • Presentations • Discussions • Assessment
Glasgow Caledonian University	• Lectures • Seminars • Directed learning • Assessment • Private study • Practical
Abertay Dundee University	• Lectures • Tutorials • Private study • Effective tutor-led study • Communications and interaction • Reflective learning and discovery • Project-based modules

Besides that, it also stated that at the University of Durham, the programme is taught in an active learning mode with all students having to participate and give their opinions all the way through the class session. In teaching the subjects, the educators of the programme normally use lots of case studies, presentations, debates, and discussions. The students are also asked to go out and interview people so that they can apply their negotiation skills. The purpose of having these activities is to get the students to manage things. Thus, it would encourage the student to take ownership of his or her own studies. All the subjects mentioned above are the core courses in the programme that will be taught one after another during a one-year programme course. As explained by Prof. Allan Gibb, the university is teaching more on the entrepreneurship courses rather than teaching other business subjects. The business subjects, in fact, are taught indirectly during the class sessions. The reason for not having the courses is because these subjects can be learned through the interaction of the students in the class. The tutor is only teaching the subjects when none of the students have an idea of what the subject is all about.

In addition, at the University of Strathclyde, in achieving the objectives of the programme, the university is said to practice an active mode of learning that encourages participation among the students during the class session. They are trained to practice their selling skills since this skill is very important for an entrepreneur, specifically in selling their ideas. To encourage a more practical way of learning, an entrepreneur is also invited to the class, especially for teaching the postgraduate students, which is more practical than inviting them to speak to undergraduate-level students. Besides that, other

experts such as bankers and venture capitalists are also invited, specifically in delivering an issue related to their field. These methods are also applied at Glasgow Caledonian University and Abertay Dundee University.

At the University of Aberdeen, the teaching is based on the case study method using case studies of successful local entrepreneurs. Furthermore, the class activity of analysing the case studies will help the students to develop and understand the marketing, technical, financial, and legal issues underpinning business creation.

4.4 Other issues related to entrepreneurship programmes

- **Period**

Most of the respondents agreed that the programme should be at least three months or more in order to develop the entrepreneurial skills of the participants. It also stated that the three-day course or any entrepreneurship programmes that are very short in duration are only meant for creating awareness as well as giving the idea to the participants on what entrepreneurship is all about rather than developing entrepreneurial skills.

- **Level of entrepreneurship education**

It is said that the entrepreneurship programme should be addressed to various levels of education. It can be offered to everyone from secondary students to postgraduate students. The reason is said to be because it is better to develop entrepreneurial skills at the earliest stage of education.

- **Number of students**

It is also stated that the suitable number of students in every class is as low as 15-25 students. Any classes that have a large number of students are said to be better off divided into a few small classes.

CHAPTER 5 - DISCUSSION

This chapter attempts to discuss in detail any issues that are highlighted in Chapter 2 and Chapter 4. This discussion is mainly to identify the best practices in conducting the programme found in both chapters mentioned before in order to seek the commonalities among the programmes conducted at any university. The main issues covered are the objectives of the programme, contents of the programme, methods used in teaching the programme, and other issues related to entrepreneurship programme.

5.1 Objectives of the programme

As mentioned in the previous chapters, the objectives that every university has might be different depending on the purpose for having the entrepreneurship programme. The purpose of having the entrepreneurship programme itself can vary among universities. Some universities might have a purpose for having the programme such as to encourage new business formation (McMullan & Long, 1990; Fleming, 1996) or to increase the awareness of the benefits of enterprising skills (Fleming, 1999). However, during the interview, it was mentioned by Professor Allan Gibb that before the objectives are set up, it is worthwhile to define the entrepreneurship concept so that the educators of the programme will know what sort of knowledge to impart to the student. Besides that, they also have to understand why they are doing it. The reason for having the programme reviewed is so that it would then be designed around the idea in order to ensure that the objective set up at the initial stage is achievable.

Only after the purpose for having the objective is defined can we then come up with the objectives of the programme. However, Mason (2000) has listed a few rationales for having the programme. For example,

- It seeks to promote entrepreneurship as a legitimate career option for students.
- Also, increasing numbers of students definitely intend to follow entrepreneurial careers.
- Thirdly, having an education in entrepreneurship will enhance the employability of students in a rapidly changing graduate labour market by their having developed key skills. Furthermore, there are the points of opportunity identification and appraisal, creativity, teamwork, and coping with ambiguity.

Therefore, fundamentally, the objectives that most universities have are normally drawn from the rationales mentioned above. Although there are various objectives stated in the literature review as well as in the interview, the objectives basically can be summarized as follows,

- To help in creating a new business venture by producing an individual who is capable of setting, growing, and maintaining the new business venture.
- To promote entrepreneurship as a socially desirable career option.
- To raise awareness concerning the benefits that entrepreneurial behaviour can bring.
- Provide the knowledge and skills to practice entrepreneurship.
- Establish a learning environment that helps develop the entrepreneurial attributes.
- Enhance the employability of students.

However, these objective are actually developed under two different types of entrepreneurship programmes that are classified as either courses 'about' entrepreneurship, which are more intellectual and teach the students more on the knowledge or theoretical part of the entrepreneurship courses, or courses 'for' entrepreneurship, which are more practical by adopting real-world and experience-based learning (Levie, 1999).

Therefore, the objectives could then be as follow:

- Courses 'about' entrepreneurship,
    - Provide a general knowledge of entrepreneurship.
    - And, create an awareness of the benefit of entrepreneurship.
- Courses 'for' entrepreneurship
    - Develop skills and attributes necessary for entrepreneurship.
    - And, create an individual who can set up, grow, and maintain the new business venture or merge a business.

In fact, all participating universities in the interview indirectly have objectives that can be classified under these two types of objectives. For instance, the University of Strathclyde, which focuses more on the courses 'for' entrepreneurship, has the objectives of developing the entrepreneurial skills among students rather than teaching the knowledge about entrepreneurship. After the objectives are set up, the contents of the programme could then be developed accordingly.

5.2 Contents of the programme

Besides having to choose the objectives for the entrepreneurship programme at the initial stage of development, it is also important to choose the contents of the programme if it is to be conducted successfully. Most of the contents chosen normally reflect the objectives chosen previously. However, the content itself really depends on what types of objectives are set up initially. For example, if the objectives are ‘about' entrepreneurship as stated above, the contents of the programme would have courses like,

- Introducing/Understanding Entrepreneurship, which will teach a student the issues related to what/who is an entrepreneur, the process of entrepreneurship, or any theories related to entrepreneurship.
- Small business management is a course that explains the differences between a small business and entrepreneurship.

Whereas, if the objectives are ‘for' entrepreneurship, the courses would then be related to,

- The creation/managing new business venture, which teaches how to create, manage, grow, and maintain a new business venture.
- Opportunity recognition helps in identifying a business idea for the creation of a new business venture.
- Business plan courses teach the planning for the proposed business venture by highlighting the marketing, human resources, production, and financial issues of the proposed business venture.

It is important to note that the list of the courses stated above is a summary of different courses that the universities have in this study.

Although the courses can be classified accordingly as mentioned above, Mason (2000) described that in essence, the courses offered basically conform to the following model,

- Of an introductory course in entrepreneurship covering theory and concepts, where the assessment may take the form of a case study analysis or entrepreneur interview.
- A more advanced course on new venture creation requires students, working in groups, to come up with a business idea and write a business plan for it.
- A new venture management course involves groups of students working with small businesses, typically on a consultancy project (e.g., marketing-related) as in Robert Gordon University.

Besides that, some universities are also teaching other business subjects along with these entrepreneurship courses such as,

- Management
- Marketing
- Operations
- Finance, and
- Strategic Management.

It is said that some universities are not teaching other business subjects during the course. For instance, at the University of Durham, the courses offered are directly about

entrepreneurship. The educator of the programme stated that the participants could learn other business subjects from other participants during the class session. Some universities are including in their courses other business subjects as well as those mentioned above. The reason for having other business subjects is because it could help the students in the development of business skills such as management, finances, and others. However, it was also said that the business subjects should in the context of start-up, growth, and small business management enterprise.

5.3 Method of teaching

In teaching entrepreneurship, the educators normally adopted an active learning method as entrepreneurship is often associated with experience and reality-based learning. As mentioned before, the contents and method of teaching are developed from the objectives chosen at the initial stage of the development of the programme and are classified according to ‘about' or ‘for' entrepreneurship. Levie (1999) stated that the courses might be as follows,

Courses for entrepreneurship	Courses about entrepreneurship
• Case studies • Guest Speakers • Group Projects • Group business plans • Student oral presentation • Class participation assessed	• Lectures • Set text • Individual essays • Individual end of term written exams

Thus, in practice, most of the participating universities in this study also have lots of different methods of teaching as shown below,

- Case study methods
- Local entrepreneurs joining in the class presentations
- Lectures
- Tutorials
- Private study
- External networking
- Business planning
- Seminars/Workshops
- Directed learning
- Assessment
- Guest presenters
- Group projects
- Video case studies
- Multimedia
- Computer-aided learning

However, the methods used are different based on the subjects that are going to be delivered. For instance, the traditional methods of teaching such as lectures, tutorials, and other traditional methods are only used in teaching the knowledge about entrepreneurship. On the other hand, an active mode of learning such as the use of

presentations, debates, and discussions is then used specifically for the subjects that are meant to develop the entrepreneurial skills among students.

5.4 Other issues with entrepreneurship programmes

Besides that, there are a few other issues that should be taken into account in order to conduct a good entrepreneurship programme.

- **Period of study**

It is said that the period of study should be more than three months, especially if the programme is to develop the entrepreneurial skills among students. As mentioned in Chapter 2, any short-period programmes are seen to be rather absurd as they can only create awareness and give an idea of what entrepreneurship is all about rather than achieving the objectives of creating an individual who can create, manage, grow, and maintain a new venture.

- **Level of education**

In creating an entrepreneur, it is said that the entrepreneurship programme should be addressed at the earliest level of education possible. The reason is that the process of developing entrepreneurial skills or behavioural changes may require a longer period for the objective to be achieved. This is why entrepreneurship programmes are offered at all levels of education, from the secondary level to the postgraduate level. At the university level, entrepreneurship courses are normally

offered as introductory courses to all students across the university as well as to second-, third-, or final-year students.

- **Number of students**

It also stated that entrepreneurship classes are best kept to a minimum size, comprising 10–25 students, since their being taught as subjects requires much active learning. The project group should also be divided into groups of 4–5 students. The reason for having a minimum number of students is that if there were a large number of students in one class, it would be difficult for them to adopt the active mode of learning in the class.

Those are the main issues that should be taken into account, especially if the programme is to be conducted successfully.

CHAPTER 6 - CONCLUSION AND RECOMMEDATIONS

6.1 Conclusions

This study mainly discusses how the entrepreneurship programme should be conducted. The main issues covered are the objectives, contents, and methods used in teaching the entrepreneurship programme. These are the key issues that must be taken into account if the programme is to be conducted successfully.

The findings gathered are both from the literature review as well as the interview and observation. The findings are mainly about how the programme is conducted in real-life cases, including information gathered in the literature review. From the analysis, it was found that most of the universities actually have almost the same style of teaching or the same contents in the programmes. However, it all depends on the purpose of the programme implemented. Accordingly, the objectives created are actually based on this purpose. The contents and the methods of teaching are also based on the objectives set previously.

Besides that, despite the differences in the subjects listed in the programme, it was also found out that there are still some commonalities found in that particular programme. Therefore, from these commonalities, it is then possible to draw the best practices in conducting the programme that can be found in the model created in 6.3.

6.2 Recommendations

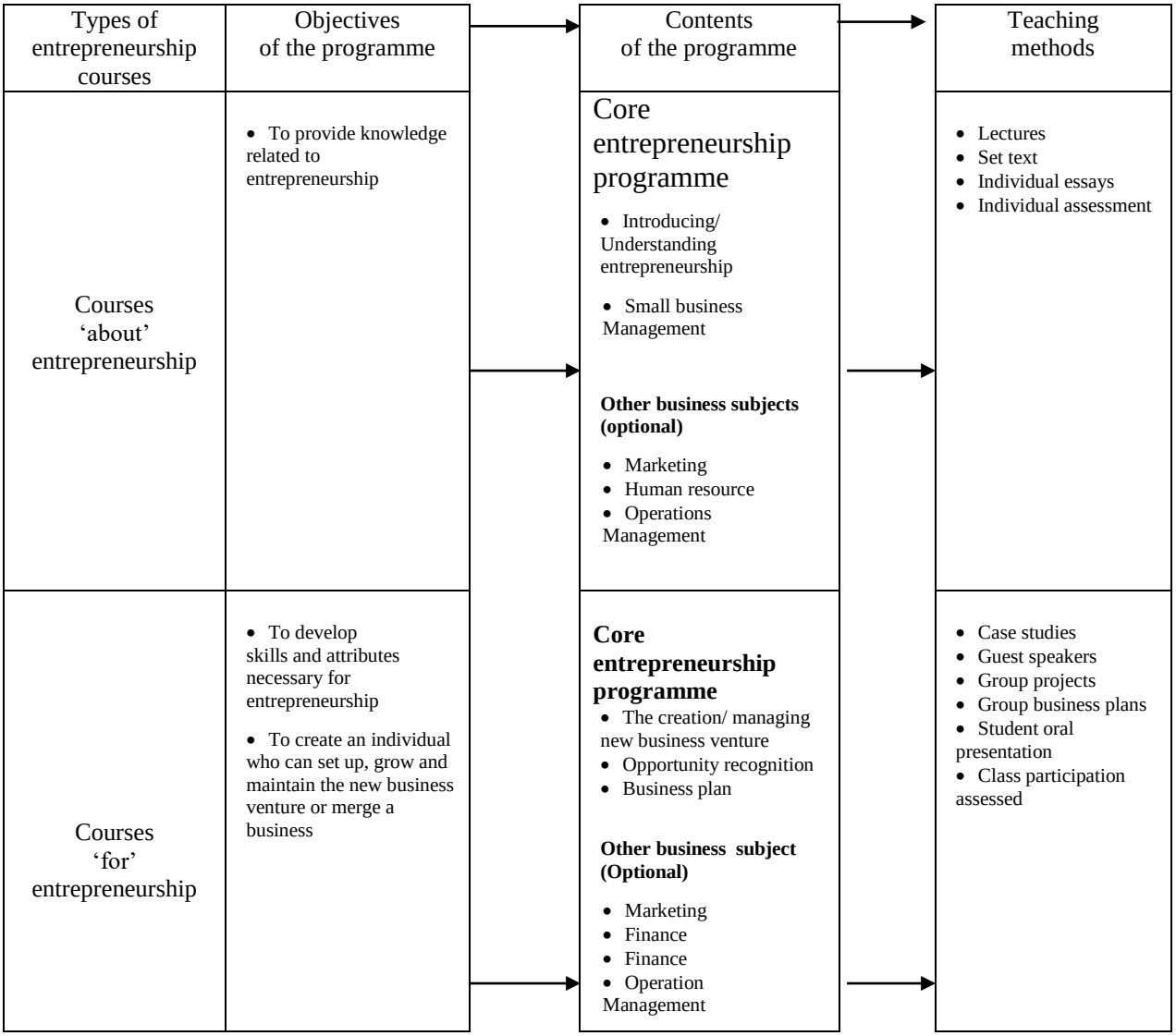
It is recommended that,

1. Before any attempts are made in developing the programme, the programme coordinator must first identify the purpose of the programme to be conducted. The programme coordinator, on behalf of the university, must find out whether they wanted to emphasise either the theoretical or practical part of the entrepreneurship programme or concentrate on both aspects. It is also important to clearly define the need for the programme to be conducted. Otherwise, the objective will not be achievable.
2. Before the programme is conducted, a clear objective must be chosen so that every attempt made in developing the programme would be mainly based on these objectives. The objectives should be clearly defined, or else it will not help in structuring the contents. For a good entrepreneurship programme, every follow-up activity should, therefore, be based upon these objectives.
3. For the programme to be successful, the educators should periodically review the method of teaching used in the programme, the activities chosen, or any involvement from the outsiders.
4. The university also should play a major role in creating an entrepreneurial environment by having everyone involved in the programme to act entrepreneurially. This would in a way help the students to behave entrepreneurially and therefore would eventually develop an entrepreneurial attitude within the students.

6.3 Model of Entrepreneurship Education

The model outlined below is drawn from the comparison made in the discussion part of this study. All the information gathered in the model is drawn both from the literature review and the interview conducted in this study.

Figure 7 : Model of Entrepreneurship Education Programme



As we can see from the model above, the entrepreneurship programme should begin with choosing the objectives, which then become the basis for the follow-up activities in developing the programme. It must be carefully chosen whether the programme will be more on ‘about' or ‘for' entrepreneurship before any objectives were set up. But, sometimes, the programme might also have objectives that are drawn from both themes. After the objectives were set up, only then the contents and the teaching method is chosen accordingly. Again, the contents and the teaching methods might be different according to the objectives chosen at the initial stage of the development of the programme.

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(APPENDIX 1)

TABLE 1: ENTREPRENEURSHIP COURSES OFFERED AT U.S. UNIVERSITIES

Habit I
An entrepreneurship curriculum should be about entrepreneurship.

Habit 2
An entrepreneurship curriculum should be experiential or experience-based.

Habit 3
An entrepreneurship curriculum should be based on principles of learning theory.

Habit 4
An entrepreneurship curriculum should evolve through all four stages of development (pilot, enhancement, custom transfer, and mass transfer).

Habit 5
Certified instructor training (and training of trainers) programs should be initiated for a curriculum intended for mass transfer.

Habit 6
Curricular goals should be compatible with the organization and constraints of target implementation sites.

Habit 7
An entrepreneurship curriculum should undergo systematic evaluation and enhancement on an ongoing basis.

TABLE 2 : ENTREPRENEURSHIP COURSES IN OTHER UNIVERSITIES (APPENDIX 2)

University	Undergraduate Courses	Postgraduate Courses
Paisley University	Entrepreneurship and Enterprise A Entrepreneurship and Enterprise B Comparative Enterpreneurship Managing A Growing Company Entrepreneurship in Large Firms and the Public Sector International Entrepreneurship and Exporting	MSc in Entrepreneurship and Economic Development (from September 2000)
University of Limerick	Enterprise Formation Enterprise Development Business Consulting	Graduate Diploma/ Master of Business Studies in Entrepreneurial Management Entrepreneurship Elective as part pf the MBA
University of Stirling	Introducing Entrepreneurship Launching a New Venture Growing Your Own Business The Entrepreneurial Experience Entrepreneurship Dissertation Commercialization Creativity and Entrepreneurship	MSc in Entrepreneurial Studies [add details]
The Robert Gordon University	Introduction Ti Entrepreneurship Entrepreneurship Experience	MBA elective: Launching New Ventures
De Montfort University	Small Business Management	
Napier University	Starting a Business Entrepreneurship and the Start-Up Process Small Business Projects Growth Strategies for Small Business	Three postgraduate modules: Innovation and New Venture Creation Growth Venture Management Innovation and Enterprise Project

	Key Issues For The Growing Business The Designer As Entrepreneur	
Strathclyde University	Personal Creativity New Venture Creation Knowledge, Science And Technology-Based Business Starting An Internet-Based Business Finance And The Growing Business Venture Management	Technology Entrepreneurship For Postgraduates (three units: Opportunity Recognition; Accessing Resources; Technology Venture Management*) * *from 2000-1*
Babson Collage	*(i) Entrepreneurship Foundation Courses* Entrepreneurship and New Ventures Financing Entrepreneurial Ventures Managing a Growing Business *(ii) Support Courses* Marketing for Entrepreneurs Venture Capital, MBOs and MBIs Entrepreneurial Field Studies *(iii) Specialty Courses* Corporate Venturing: Entrepreneurs in Organizations Franchising, Licensing and Distributorships Entrepreneurship and e-Commerce Family Business Management Management Field Consultancy Experience	Entrepreneurship and New Ventures Financing Entrepreneurial Ventures Managing Growing Business Corporate Venturing: Entrepreneurs in Organizations. The Social Entrepreneur Franchising, Licensing and Distributorships Management Buy-Outs and Buy-Ins Venture and Growth Capital: Theory and Practice Marketing For Entrepreneurs Venture Growth Strategies

TABLE 3: ENTREPRENEURSHIP COURSES OFFERED AT U.S. UNIVERSITIES (APPENDIX 3)

Introductory Courses in Entrepreneurship or new Venture Creation	48
New Venture Financial Planning, Venture Capital, and Student Investment Fund	21
Management of Small Enterprise or Business	20
Entrepreneurship Policy: Diagnosis, Advanced Planning, Feasibility, Models, and Evaluation	18
Entrepreneurship Special Topics, Independent or Directed Studies, Workshop, and Camp	18
Entrepreneurship Internship and Consulting	17
Business Planning	15
Management of Growth	10
Product, Technology and Innovation Management	9.5
Entrepreneurship or Franchise Law and Ethics	8
Entrepreneurship and Innovation in Corporations	8
Creativity and Integrated Innovation	7.5
Entrepreneurial Behavior and Change	6
New Venture Marketing	5
Entrepreneurship Specialties: Real Estate, Education, Environmental/Energy, Arts, and so forth	5
Technical Entrepreneurship Courses	4
Internationalizing Entrepreneurial Ventures	4
Franchising Analysis	3
Franchising Management	3
Desktop Computing and Strategic Information	2
Owner Manager Transition Program	2
Economic Organization: Doing Deals	1
Entrepreneurship and Economic Development	1