

ENTREPRENEURSHIP EDUCATION

A Guide For Entrepreneurial Educators



OUTCOME BASED EDUCATION PROBLEM SOLVING ESTABLISHMENT OF STUDENT ENTERPRISES
STUDENT CENTERED EXPERIENTIAL LEARNING AND SKILLS DEVELOPMENT **MODULAR APPROACH**
PHILOSOPHY OF ENTREPRENEURSHIP EDUCATION PROJECT ORIENTED PROBLEM BASED LEARNING (PoPBL)
CASE STUDY INTERACTIVE LEARNING PROBLEM BASED LEARNING

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Foreword From The Editor

UMK aspires to be the “Entrepreneurial University” with its tagline “Entrepreneurship is our thrust”. The concept of entrepreneurship at UMK focuses on the creation of new generation of human capital with desired attributes that will be functional under any circumstances, enhancing the graduates competitiveness and employability. Entrepreneurship cuts across all disciplines in which all the university systems must be coherently related and therefore, every University citizens must fully understand the definition of entrepreneurship at UMK. UMK must cohesively create the culture of entrepreneurship, which will later be developed as its identity. Currently, entrepreneurship is becoming a buzz word where all Institutions of Higher Learning (IHL) has made it as an integral part of the education system. Entrepreneurship education focuses on the delivery system or teaching pedagogy which will transform human characteristics and behaviour. At UMK Jeli Campus, an entrepreneurship ecosystem was developed of which one of the components focuses strongly on the entrepreneurship education. The publication of this book is one of the highlights of strengthening entrepreneurship education at UMK Jeli Campus. Entrepreneurship education refers to the pedagogy of delivering entrepreneurship with the ultimate outcomes to inculcate the attributes and values among the students. In order to achieve that, the teachers or what is known as “entrepreneurial educators” must be competent to deliver the academic programme by embedding entrepreneurship education. Entrepreneurship Education can be approached in many ways and the methods used are collectively categorised as Student Centered Learning (SCL). SCL focuses on enhancing the student ability, and the entrepreneurial educators will be responsible for enhancing the learning processes among the students based on their abilities. The book discusses the methods in the delivery systems ranging from Outcome based education to the establishment of student enterprises-on-campus. The book hopes to complement all the knowledge and initiatives currently undertaken by our “entrepreneurial educators” to ensure the success of the Entrepreneurship Education. The content of each teaching method describes the philosophy of the delivery system, the results expected and the approaches for implementation. The book

will be extremely useful for young academics as guidelines before they start their teaching plans and deliver the course content. The book also hopes to give guidelines not only on the “what”, but most importantly, the “How” and the “Why”, a particular teaching method is selected to be implemented. With the appropriate delivery method, the learning process can be enhanced significantly and at the same time, the inculcation of the entrepreneurial attributes can be achieved among the student.

I would like to take this opportunity to thank all the contributors to the chapters in the book of which without their commitment, the publication of the book will not be materialized. The majority of the authors are young and vibrant academics; and they are also in the process of learning. Their brave effort in trying to share their teaching experiences on entrepreneurial education is highly commendable. The content may not be exhaustive and we believe that are many more new teaching approaches which can be considered in the near future. On the other hand, we also strongly hope that the book will be an excellent beginning for enhancing entrepreneurship teaching at our University and other IHLs.

Professor Dr Hj Ibrahim Che Omar, DEng, PSK, JMN, FASc Campus Director, UMK Jeli Campus.

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Chapter 1

Philosophy of Entrepreneurship

Education : Concept and Delivery system

Aweng Eh Rak, Ahmad Syakir Junoh@Ismail and Ibrahim Che Omar

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- 1.2 Entrepreneurship Education
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1.1 The Concept of Entrepreneurship

Entrepreneurship has been given great attention currently not only in Malaysia but also in other institutions around the globe. However, each of these institutions may have their own definition of entrepreneurship. Generally entrepreneurship is a term related strongly to economy and wealth creation. Therefore, it has permeated into the ideas of business and the ability to make and multiply money! The word entrepreneur originates from the French word which means to undertake. In a business context, it means to start a business. The Merriam Webster Dictionary defines entrepreneurship as organization, managing, and assuming risks of a business or enterprise. Others see entrepreneurship as human qualities such as having high aptitude, pioneering changes, unique characteristics which may only be found among a small fraction of the population. According to Peter Drucker, Entrepreneurship is defined as 'a systematic innovation, which consists of the purposeful and organized search for changes, it is a systematic analysis of the opportunities and such changes may result in economic and social innovations. Entrepreneurship is nevertheless not a discipline,

but it requires a strong knowledge based theory (Alvaro et al., 2008). It is an outcome of complex socio-economic, psychological, technological, legal and other factors. It is a dynamic and risky process. It involves a fusion of capital, technology and human talent. Entrepreneurship is equally applicable to big and small businesses, to economic and non-economic activities. Different entrepreneurs might have some common traits but all of them will have some different and unique features (QAA, 2012). If we just concentrate on the entrepreneurs then there will be as many models as there are ventures and we will not be able to predict or plan, how and where, and when these entrepreneurs will start their ventures. Entrepreneurship is a process. It is not a combination of some stray incidents. It is the purposeful and organized search for change, conducted after systematic analysis of opportunities in the environment. Thus, entrepreneurship remains a term which is yet to be defined to some. While it may be impossible to derive to a definition that fits all, but what may differ among those who believe in entrepreneurship will probably be on the differences that are created and how impactful is entrepreneurship towards human characters, economy, environment, community and social structures.

According to Reynolds (2005), entrepreneurship or the entrepreneurial function can be conceptualized as the discovery of opportunities and the subsequent creation of new economic activity, often via the creation of a new organization. Due to the fact that there is no market for “opportunities”, the entrepreneur must exploit them, meaning that he or she must develop his or her capabilities to obtain resources, as well as organize and exploit opportunities. The downside to the market of “ideas” or “opportunities” lies in the difficulty involved in protecting ownership rights of ideas that are not associated with patents or copyrights of the different expectations held by entrepreneurs and investors on the economic value of ideas and business opportunities, and of the entrepreneur’s need to withhold information that may affect the value of the project.

Moreover, entrepreneurship is often discussed under the title of the entrepreneurial factor, the entrepreneurial function, entrepreneurial initiative, and entrepreneurial behaviour and is even referred to as the entrepreneurial “spirit. The entrepreneurial factor is understood to be a new factor in production which is different from the classic ideas

of earth, work and capital, which must be explained via remuneration through income for the entrepreneur along with the shortage of people with entrepreneurial capabilities. Its consideration as an entrepreneurial function refers to the discovery and exploitation of opportunities or to the creation of enterprises.

Stakeholders including policy makers and the universities themselves have shown their concern with regard to the fate of unemployed graduates and this has become an intractable issue which had to be addressed urgently and wisely. Many factors contributed to the problem of unemployability among graduates. However, many claim that the main factor is, our graduates lack the generic skills needed for the job. Thus, universities need to consider to uplift the relevant skills among graduates in order to fulfill the need and expectation of job markets. One of the strategies was to introduce the concept of entrepreneurship education in higher education. Entrepreneurship education refers to the change in the pedagogies of teaching which improves the learning process as compared to the conventional teaching and learning. The Ministry of Higher Education (MOHE), Malaysia has instructed that all Higher education Institutions to include entrepreneurship within the curriculum. But before one can outline the methods and approaches, they will need to first describe the meaning of entrepreneurship. At Universiti Malaysia Kelantan (UMK), entrepreneurship is defined as : “.... a process in the creation of a new generation of human capital with a set of desired mindset, values and qualities where creative and innovative approaches hinge on transformational leadership to value add the governance system, societal networking for national and regional development, professional development and wealth creation” (Ibrahim & Zainai, 2010). The entrepreneurship values refer to the ability to take risks, provide and seek opportunities and innovate with creativity by optimizing all the resources available. The ability to adapt, taking odds in their favour, undertake collective empowerment and be independent are among other values that will enhance the efficiency of the governance system, employability of the graduates and strengthening the creation of a progressive and economically stable society. However, it must be clearly understood that entrepreneurship is not just about business but business can be an effective tool in strengthening the attributes of entrepreneurship. Today, entrepreneurship concept develops from the idea related to activities which are governed by creativity and innovation

including initiatives in new sectors such as social entrepreneurship, corporate entrepreneurship, family entrepreneurship, politics and knowledge based economy. Creativity and innovation will be the only basis for wealth creation. The human capital that will be developed through the practices of entrepreneurship will be seen as having a set of entrepreneurial attributes which will lead to the inculcation of the so-called enterprising attributes. The indicators for the success of entrepreneurship will be based on the characteristics of the institutional governance system, dynamic academic staff, enterprising students and graduates, progressive community and society and entrepreneurial environment and culture.

• **Governance system**

All institutions must have an efficient and effective governance system which is able to optimize all the limited resources available. It is also expected that the flexibility of the governance system will enable the resources to be utilized in a creative manner with optimum outcomes. The institutions must also work within the parameters of cost and profits; an approach to skillfully and intelligently manage the financial resources for good cause with impactful outcomes. Income generation should be one of the important agenda for the institution. Strong, abled and competent leadership with entrepreneurial capabilities and qualities, entrepreneurial mindset and thinking and high commitment are the prerequisites that constitute good governance. These leaders or normally known as transformational leaders are role models, able to make differences, highly responsive to challenges and show impacts. They are capable of responding flexibly, strategically, and yet coherently aware of the opportunities within the environment. The support component of the institutions must also be competent, versatile, focus with clear understanding of the institutional goals, vision and mission.

• **Academic staff**

Academic staff must have the ability to master the teaching of entrepreneurial educational elements. They need to design, innovate, and be creative in the delivery systems. The academic staff are actually the entrepreneurial educators, the expectation will be much more than

from any ordinary lecturers! In this context, academic staff are expected to exhibit excellent practices both in lecture halls and also outside the lecture halls (EU, 2013). Other features of the academics include their competence in research and innovation, publication, commercialization, consultancy and strong collaboration with stakeholders and industries. Besides academic activities, they are also expected to be highly involved and participative in non-academic activities which will form part of the role of an entrepreneurial educators. Besides that, the academics are the main contributors to regional development based on their knowledge and expertise.

• **Students and graduates**

All students and graduates will undergo entrepreneurship education. The curriculum that will be designed and developed, will need to clearly outline the programme outcomes particularly in inculcating the desired mindset to the students, their behaviour, and attributes which are collectively defined as enterprising attributes. The graduates will now be able to undertake and explore in any profession as their attributes will be the strength for them to accept any responsibilities, regardless of the nature of the profession or situations. Throughout their study, students will be exposed to the values and attributes of entrepreneurship through various forms of activities such as student led management events, social development and the establishment of student companies.

• **Community and society**

The university must be impactful to the community; its existence must be felt particularly in changing the mindset of the community towards positive thinking and attitudes. It is also important for the institutions to be involved in the economic and social development of the community within its environment. One of the strategies will include complementing the existing strategies and initiatives of the local government. The strength, skills and expertise or competencies of academics from the institutions must be translated into catalysts for regional development. The concept of social entrepreneurship must be directly benefited by the community which can be strengthened as a corporate social responsibility of the institution.

• Entrepreneurial Environment

The institutions must be prepared to provide the needed environment for entrepreneurial teaching and learning, and also practice what were imparted to the students. The conducive environment includes the development of physical infrastructures, which will drive and support student enterprises and entrepreneurship. Besides the physical changes, the people within the institutions must also change towards entrepreneurial cultural transformation. Entrepreneurial culture will have to be everybody's business and should not be confined to a certain group of people or individuals. The idea is to create a highly integrated entrepreneurial culture which will complement one another in achieving the goals of a entrepreneurial institution.

In order to achieve success among the players, massive transformation becomes inevitable including the changes as follows:

- a. The institutions drives to promote the entrepreneurial thinking and leadership
 - Strong leadership with efficient, effective, competent and highly consolidated decision making ability.
 - Highly integrated entrepreneurial culture; the culture that is moulded to achieve excellent.
 - Knowledge entrepreneurship as a basis for university's culture
 - Entrepreneurial management staff and students
- b. Strive for diversification of funding base through endowment, specialized services (i.e. consultancy, training, research and innovation, technology transfer); engagement in ownership of high value enterprises, innovation and incubation centres and university farm activities (Agropark).
 - Engagement of staff and students in entrepreneurial activities
 - Diversified funding with income generation as an important agenda
 - Strong university business ecosystem
 - Directly involved in establishing and managing business entities both by staff and students
 - Celebrate diversity among staff as strength for income generating activities.

- c. Practice integrative teaching and innovative learning, involving live case studies and students developing their own business ideas with the support of the local business community as business mentors that inspire entrepreneurial actions and culture through multidisciplinary approaches.
 - Innovative teaching and learning techniques that inspires entrepreneurial culture, such as mentoring by entrepreneurs.
 - Multidisciplinary programmes including courses related to entrepreneurship in all disciplines.
- d. Capitalizes capabilities in entrepreneurship for regional development by focusing on solving complex world challenges through networking and smart partnership.
 - Responsive to local and regional needs and complementing regional development
 - Creating ties with external stakeholders and industries, strong collaboration with industries in achieving entrepreneurial characteristics.
- e. The University actively participates in putting social entrepreneurship into practice in support of creating values in the society.
 - Social entrepreneurship as one of the university strategic plan for the community and society
 - Creation of value addition in society

1.2 Entrepreneurship Education

The entrepreneurship values refer to the ability to take risks, provide and take opportunities and innovate with creativity by optimizing resources. The ability to adapt, taking odds in their favour, undertake collective empowerment and be independent are among other values that will enhance the efficiency of the governance system, employability of the graduates and strengthening the creation of a progressive and economically stable society.

As entrepreneurship refers to the creation of a new generation of graduates, entrepreneurship education is about teaching methodologies in achieving the creation of new graduates regardless of field of studies (EU, 2012). The new graduates are characterized with unique attributes,

values and qualities which are collectively known as the entrepreneurial attributes. In the teaching of science and technology education, embedding entrepreneurship education can be very challenging, however, considering science and technology are courses that demand high creativity and innovation, embedding entrepreneurship education may not be a difficult task. Kassim et al., (2010) reported some findings on the merging of entrepreneurial knowledge with Science and Technology education in UMK. Lee et al., (2010), on the other hand described the merging of the field of engineering and entrepreneurship. The merger will ensure that the education system will be the driver in preparing the new graduates with attributes which are ready to meet the need of the potential employers. Some studies have shown that the education system can be modified to accommodate the entrepreneurship approaches in the pedagogies of entrepreneurial teaching (Syed Muhammad, et al., 2010) and simultaneously cultivate entrepreneurial skills through entrepreneurial teaching models (Alias and Sulaiman, 2010). Consequently, the education system is expected to generate new category of students exhibiting entrepreneurial characteristics (Aweng, et al., 2010).

• Relationship between entrepreneurship and education

Entrepreneurship and education are two fields that require blending in order to meet the challenges faced by the society in upcoming century. In November 2012, the European Commission published the communication 'Rethinking Education: Investing in Skills for better Socio-Economic Outcomes'. This policy initiative emphasises that, in order to build 'skills for the 21st century', efforts are needed to develop transversal skills such as entrepreneurship and highlights 'the ability to think critically, take initiative, solve problem and work collaboratively'.

In fact, entrepreneurship education should not be confused with general business and economic studies; its goal is to promote creativity, innovation and self-employment. Amongst the attributes in developing personal attributes and skills that form the basis of an entrepreneurial mindset and behaviour are creativity, sense of initiative, risk-taking, autonomy, self-confidence, leadership and team spirit (Huber et al., 2012). In addition, the awareness of current students on self-employment or running a business as a possible career and options required the

education to be embedded with the component of entrepreneurship such as working on concrete enterprise projects and activities as well as providing specific business skills and knowledge of how to start a company and run it successfully. These 'entrepreneurial skills' should be given particular attention at the early age and must be installed since the skills will not only help to achieve concrete entrepreneurial activity, but also enhance the employability of the under graduate.

1.3 Entrepreneurial Educators

Based on the concept and theory of entrepreneurship that were discussed previously, it can be defined that an entrepreneurial educator is someone who is passionate for what they are doing. He/she must show very positive attitude, and is able to inspire others. In addition, he/she must also be confident in their teaching. While, entrepreneurial educators are leaders themselves, however they are also expected to emulate other senior staff or educators for academic leadership styles. Entrepreneurial educator exhibits extrovert characteristics. For example, in a symposium or seminar, they will be highly participative in giving their opinions and comments on any particular subject. It is by nature that they are energetic, vibrant and highly inspiring to their students and other fellow teachers. As educators, they need to teach the students to think and be visionary, as well as allowing them to be open minded for new ideas. Such characteristics will mean that they are well equipped or well prepared to deliver the entrepreneurship education at schools, creatively using all the resources available within the local community. In this respect, the entrepreneurial educator must be able to network effectively with a wide range of stakeholders. Entrepreneurship teaching requires educators to be flexible in their delivery systems and must be ready to be creative beyond the normal pedagogical methods which are practiced in the conventional educational teaching. At the same time, teaching requires a balanced approach between knowledge acquisition and professionalism. Entrepreneurial educators are also good listeners and provide solutions to the learning process of the students. They are the sources of new ideas and willing to share their ideas with the others. At the same time, all educators must understand that their main role is to motivate and provide opportunities for students who are willing to learn, regardless of the students's ability or under any situation.

1.4 Advantages of Entrepreneurial Education

Student Centered Learning (SCL) is the teaching and learning approaches which was introduced by the Ministry of Higher Education (MOHE) since 2010 and must be implemented by all institutions of higher learning in the country. Initially four types of SCL approaches were introduced that were Case Study, Problem Based Learning (PBL), Project Oriented Problem Based Learning (PoPBL) and Modular Approach. However, today SCL can be achieved using other approaches such as Outcome Based Education (OBE), visitations, presentations, group discussion and establishment of student companies (business on-campus). It is important to note that OBE can also encompass the PBL and PoPBL.

Entrepreneurship education demands the entrepreneurial educators to be creative and innovative in the delivery systems (Richard, 2012). The key success of entrepreneurship education will depend strongly on the teaching pedagogy (EC, 2011). The approach and style of teaching has to be shifted from that of conventional teaching to Student Centered Learning (SCL). SCL is an approach which focuses on the needs of the students, rather than teachers or administrators. The pedagogy will direct the teachers to pay attention on student needs, abilities, interests and learning styles while the teacher act as the class facilitator. SCL requires students to be active, responsible participants in their own learning where they have to participate in discovering the learning processes from an autonomous viewpoint, consuming entire classroom construction and new understanding of the materials being learned in a proactive mode. Even that, SCL cannot stand alone on its own, it has to be integrated in the curriculum, for several reasons, such as to strengthen student motivation, promote peer communication, reduce disruptive behaviour, build student-teacher relationship, promote discovery/active learning and is responsible for one's own learning. Student learning processes are greatly enhanced when they participated in deciding how they demonstrate their competencies in the acquisition of knowledge or performance of skills. There are nine (9) SCL's that are presently practiced in UMK namely Case Studies (CS), Outcome Based Learning (OBL), Problem Based Learning (PBL), Project Orientation Problem Based Learning (POPBL), Discussion Groups, Project Presentation, Study Visits and Group Work. Not all courses need

to consider all the SCL strategies and thus, different courses will need to determine the suitability for a particular topic or body of knowledge by either using one or more approaches in achieving the objectives and the learning outcomes expected of each courses (Ingleton, et. al., 2000)

Basically, Student Centered Learning (SCL) is the vehicle or platform to achieve the idea of Global Citizenship, where graduates who are innovative and creative will be able to survive in all the aspects of their life anywhere on the globe. This is because they are all equipped with the entrepreneurial attributes that will make them functional graduates or graduates which are adaptable in any community, locally or internationally. Functional graduates will have higher chances for employability compared to other graduates and will be most likely to be selected for the job.

• **Understanding and enhancing the learning processes**

The process of teaching and learning is the sequence of methods and activities in delivering and imparting knowledge and skills to the targeted group of students. Methods that will be used must take into account the element of suitability particularly in ensuring maximum learning process to take place. At the same time, the selected method must also be appropriate in order to achieve the learning objective. Obviously, there are numerous ways to enhance the learning process among the students based on the theory of entrepreneurial principles focusing on creative and innovative approaches. In addition to that, the ability of students to learn becomes an important element in determining the success of the learning process at higher education institutions. In other word, this teaching method emphasizes on the element of commercial value or the outcome of any activity which is beneficial to the student in making them to be more competent.

Entrepreneurship education helps educators to diversify delivery techniques and the evaluation methods for their students. With the advent of more accurate methods of assessment, students can be evaluated by the educators based on the level of student participation in the learning processes.

Editor Biodata



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Seminar), establishing students companies as the strategy of businesses on campus and initiated the establishment of income generating activities within the campus. At Jeli Campus, he introduced the Entrepreneurship Ecosystem encompassing the elements of entrepreneurship education based on student centered learning, student companies, staff participation and community and social entrepreneurship. At UMK, as a Dean, Acting DVC (A & I) and Campus Director, his accomplishments include the establishment of Faculty of Agro Industry and Natural Resources (FASA), Faculty of Veterinary Medicine (FPV), Centre of Excellence for East Coast Economic Region (UMK-UMK-MOHE), Entrepreneurship Foundation Program UMK-MARA, Regional Network on Poverty Eradication (RENPER), Faculty of Agro Based Industry (FIAT), Faculty of Earth Science (FSB) and the Institute for Research and Poverty Management (InspeK).



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