

WORK INTEGRATED LEARNING (WIL): MOVING “FROM BRAIN TO MARKET”

Keywords: action-research, work integrated learning, teaching method, project-based learning; entrepreneurial learning environment

Abstract:

This paper builds on previous study undertaken by the author, a discussion paper presented at the following events: (1) The 5th Asia-Pacific Cooperative Education Conference 2004, Auckland, New Zealand; (2) The World Association for Cooperative Education (WACE) Asia-Pacific Conference 2006, Shanghai, China.

The present work is a continued action-research effort by the author to support the claims relating to the students' benefit by doing their Work Integrated Learning (WIL), in the form of entrepreneurial project-based assignment. This paper will present the teaching method, by which all students were prepared to build their own WIL, through in-class and out-class method. Building the WIL means preparing students with academic skills in a real world circumstances: working under pressure to build their own future of becoming the self-employed.

The result reported in this paper is aimed to describe the evaluation of what the students gained from WIL. Feedback from the students indicates that many feel encouraged and prepared to start their own businesses. The findings show that WIL has been an eye-opener to the students, as to the skills and resources required to achieve their dreams of “being their own boss” and running a profitable project-based assignment – of moving “from brain to market.” Data collection was limited to the students who practiced this WIL during academic year of 2004/5, 2005/6, 2006/7, 2007/8 and 2008/9; with the underlying assumptions that around forty (40) percent of them are now part of the real market.

This paper is also aimed to illustrate the power of WIL that can serve as a model for other educational institutions, for which the author may contribute significantly to reduce educated unemployment in Indonesia.

INTRODUCTION

This paper describes the authors' experiences in teaching entrepreneurship courses to undergraduate students at *Institut Manajemen Telkom (IM Telkom)*, Bandung, West Java, Indonesia. In the previous study (Lubis, 2004) the author discusses an attempt to close the gap between theories and practice that occurred during academic year 2003/4, the first cohort of students who practiced the Work Integrated Learning (WIL) in the form of entrepreneurial project-based assignment. This study was aimed to describe that WIL marked an important milestone in the evolution of teaching entrepreneurship at the institution. The students reported about the beneficial aspects of the project, resulting in enhancement of their practical and their personal skills (Lubis, 2004, p. 5). A continued action research effort is reported to support the claims relating to the benefit of this entrepreneurial project-based assignment, undertaken during the academic year 2004/5. The author was able to address a "value-added" impact on partnership between the team members. This evaluation was achieved by a survey of questionnaire containing five dimensions of teambuilding experience, namely, team trust, self-esteem, team awareness, team effectiveness and team bonding (Lubis, 2006, p.11).

The context of the inquiry reported in this paper was limited to the students who practiced WIL during academic year of 2004/5, 2005/6, 2006/7, 2007/8 and 2008/9, by conducting a self-completion questionnaire. This questionnaire is intended to address the extent to which WIL was contributing to the students' skills and knowledge of becoming the self employment business ownership. Of interest also was the extent to which the idea behind team-based assignment of WIL was being a catalyst to the students' perception on how they value their selves towards self employment business ownership.

THEORETICAL HISTORY OF ENTREPRENEURSHIP

There are numerous literatures for the historical sketch of the evolution of entrepreneurship theory. Throughout the theoretical history of entrepreneurship, scholars from

multiple disciplines in the social sciences have grappled with a diverse set of interpretations and definitions to conceptualize this abstract idea. Even though certain themes continually resurface throughout the history of entrepreneurship theory, presently there is no single definition of entrepreneurship that is accepted by all economists or that is applicable in every economy (see, e.g., Hisrich, Peters and Shepherd, 2007; Wood, 2005; Grebel, Pyka & Hanusch, 2003; Burnett, 2000; Wikipedia, 2008a).

Cantillon (1680s-1734) was the first one to take up thinking about the role of entrepreneurs in the economy (Cantillon, 1755, as cited in Hisrich, Peters and Shepherd, 2007; and Grebel, Pyka & Hanusch, 2003). He classified economic agents into three groups: (1) landowners, (2) entrepreneurs, and (3) hirelings. Whereas the first and the third group are characterized as being rather passive, the entrepreneurs play the central part in his *Essai sur la nature du commerce en general*. They play the role of coordinator, connecting producers with consumers, and also the role of the decision maker engaging in markets to earn profits and struggling with uncertainty.

As cited in Wikipedia (2008a), for Frank H. Knight (1967) and Peter Drucker (1970) entrepreneurship is about taking risk. The behavior of the entrepreneur reflects a kind of person willing to put his or her career and financial security on the line and take risks in the name of an idea, spending much time as well as capital on an uncertain venture. Grebel, Pyka & Hanusch (2003), who develop an analytical model that can be applied to different industries and historical settings, argued that entrepreneurship has always been a controversial topic in economic theorizing. According to these authors, most of the research work comes to an end at a purely appreciative level. A consistent theory of entrepreneurship is missing; a theory that is adequate to combine the various strands of literature in order to come eventually to an empirically testable model. Those authors clearly states that besides the early theories that approach entrepreneurship from a rather intuitive perspective, to be traced back to Schumpeter

(1911, 1939) and Kirzner (1973, 1999), a modern evolutionary approach should also contain some specific theories such as the theory of human capital (e.g. Schultz 1975), social networks (e.g. Granovetter 1973), and Neo-Schumpeterian Economics (e.g. Loasby 1999).

Wikipedia (2008b) states that the English literature preferred to use the French word entrepreneurship, but perhaps the German one would be more correct to understand the entrepreneur studies. According to this source, the concept of entrepreneurship cannot be fully understood without Schumpeter's contributions, being probably the first scholar to develop its theories. Schumpeter gave two theories, sometimes called Mark I and Mark II. In the first one, the early one, Schumpeter argued that the innovation and technological change of a nation comes from the entrepreneurs, or wild spirits. Schumpeter came up with the German word *Unternehmergeist*, meaning *entrepreneur-spirit*. Schumpeter believed that these individuals are the ones who make things work in the economy of the country. In Mark II, Schumpeter pointed out that the ones who really move the innovation and economy are the big companies which have the resources and capital to invest in research and development. Both arguments might be complementary today.

Kirzner (1978) argues that in market process theory, the market is already in disequilibrium, so that the opportunities already exist, and the entrepreneur notices (not creates) them. In this book, Kirzner draw a distinction between Schumpeter and his new theoretical ground. An Interview with Israel M. Kirzner as cited in The Austrian Economics Newsletter (1997) describes that entrepreneurship requires no resources to be initially owned, and 'pure' entrepreneurship (a mental tool) is exercised only in the absence of resource ownership. Economic analysis can be simplified by separating decisions into entrepreneurial and economizing elements. 'Consumers' and 'resource owners' economize, and 'entrepreneurs' display alertness. In this interview, Kirzner explain market theory (also called price theory or microeconomic theory) tries to explain relationships among observed market phenomena.

Two alternative approaches to market theory are the orthodox neoclassical theory (developed mainly by Marshall, Robinson, Chamberlin and Walras) and the Austrian market process theory (developed by Mises, Hayek and Kirzner). In this interview, Kirzner says,

For Schumpeter, the entrepreneur was a disrupter. He breaks an existing, evenly-rotating system. Paul Samuelson has a metaphor for Schumpeter's view of the world. He said it's like a violin string. You pluck it; it vibrates, and finally settles down. I would say that Schumpeter saw the entrepreneur as the person who is doing the plucking from a taut position, generating the change. All the vibrations are attributed to his action. Originally, I emphasized the other side of the issue. The entrepreneur generates a tendency to restore the evenly-rotating system to a new level or a new pattern. But it is the restoration, not the disruption that is brought about by the entrepreneur.

In market process theory, both imitators and innovators are equally entrepreneurial, and both push a disequilibrium world closer to equilibrium. Despite Schumpeter's contributions, perhaps his main mistake is to believe that opportunities for innovation could exist in an equilibrium world, with perfect knowledge of products and production processes.

From this discussion, the author interprets that entrepreneurial component comprises the intangible characteristics of the heroic Schumpeterian entrepreneur – that is the entrepreneurs' role as the crucial productive element for the long-run survival of the firm – and each entrepreneur is endowed with a certain amount of capital which he can spend on a business venture. The bottom line is that potential entrepreneurs need to have capital to start their business, regardless whether they own it themselves or borrow it from others.

“WIL” IN THE CONTEXT OF THE ENQUIRY

How does it work?

On the first day of class, the author explained to the students that the structure of combined method, in the form of in-class and out-class sessions, have been adopted to prepare

the students with the balance and coherence between academic and practice-based dimensions of the learning environment. Balance, coherence and integration in turn require some topics shaping the Entrepreneurship subject design valuing the coming together of the theoretical with the practice of the WIL.

The students were then set free to organize themselves into teams and start thinking about the projects they would undertake. Basically, each team was formed into five to six members and team members are self-chosen. Those students are given the opportunity to practice their managerial skills during the period of five to six weeks, starts right after the mid term test. During this period, they would be away from the classroom. They are expected to apply their skills in opportunity seeking, goal setting and strategy formulation. In short, they are expected to transfer their relevant knowledge directly into a “real world” context.

The Aims of the Study

Anecdotal evidence suggested that WIL was valuable. A number of students, who practiced this project-based assignment within the context of this paper inquiry, had gained employment and comments made by host organizations had been perceived as favorable. However, because there has been no formal evaluation of the “value added” associated with self employment business ownership, the author instigated the undertaking of an action-research with the following objectives:

1. To examine the perceived benefits to the students through project-based experience as initial step towards self employment business ownership
2. To gain information to establish a more rigorous evaluation of WIL

“WIL” as a Response to the Bleak Employment Market

A closer look on how to deal with higher education graduates’ employment prospects, it is important to note a specific attention to the issue of unemployment in Bandung City which located in West Java Province. For the case of Bandung city with around 2.8 millions

inhabitants, from 2002 to 2005 the year-on-year average of labor force is 21.5% while on the unemployment side there are 46,186 people. There are also the doubling ratios of unemployment to labor force, year-on-year. Drawing on from the empirical evidence, the author interprets that higher education institution need to pause and look critically at what they do and to examine honestly the ultimate effects: who are the beneficiaries, and are they consistent in their goals and their outcomes? In a bleak employment market, with too many candidates vying for too few jobs, perhaps a higher education degree, rather than being a point of differentiation, is becoming a common denominator. If the idea that educators is a creator of knowledge as well as a trainer of young minds, and if the outlook of employment elasticity is highly uncertain, the author interpret that it should be borne in the mind of the educators that entrepreneurial learning environment might be given a higher priority in response for combating unemployment. At the very least, higher education institutions need to evaluate the careers of their graduates and the knowledge they produce. With regard to the theory of the behavior of the entrepreneur, which reflects a kind of person willing to put his or her career and financial security on the line and take risks in the name of an idea, therefore providing the future graduates with the entrepreneurial learning environment would be a catalyst for promoting the emergence of self-employment. No doubt that one major benefit of self-employment is the job creation. If graduates set up their own businesses, they will employ themselves and employ others.

Research Findings

The result of the study show that a total of 679 (354 females and 325 males) completed the questionnaire – a response rate of 98%. The research findings are ordinal level, therefore only estimated means can be computed, and the results can be used only to show the rankings. It is important to note that the focus of the evaluation was upon a student perspective; therefore this paper must be regarded as descriptive research at this stage.

Moreover, it is difficult to design a quantitative assessment for this type of a course that goes beyond the format of a typical exam – which does not indicate anything about the students’ ability to apply this knowledge in the real world. Nevertheless, the author believed the data collected would still be useful for further research in order to extend the author understanding of the learning outcome on Entrepreneurship subject for undergraduate students. Description of instrumentation and the findings are shown in table 1, table 2 and table 3.

Table 1
Technical specifications of the study

Type of study	Action-research
Sources of information	Primary and secondary
Sample criteria	Students who practiced the WIL during academic year of 2004/5 (147), 2005/6 (105), 2006/7 (103), 2007/8 (174) and 2008/9 (164) students.
Total respondents	693 students
Survey instrument	<ol style="list-style-type: none"> 1. A self-completion questionnaire organized into two section 2. Both section used a 5-point Likert scale (1=strongly disagree to 5=strongly agree) 3. Both section used one-stage Likert scale (the traditional format) 4. Individual scores ranged from a minimum of 7 to a maximum of 35 5. The first section contained 15 statements to evaluate the effectiveness of the project-based experience associated with the students’ self-worth of becoming self-employed 6. The second section contained 15 statements to evaluate the effectiveness of the project-based experience associated with the aspect of willingness to learn on how to deal with business risks by becoming self-employed

Table 2
List of questionnaire Section-1: The impact of WIL to students’ self-worth

<i>As a consequence of project-based assignment:</i>	Mean
1. I like to give myself challenges when I take on a new project	4.55
2. I am continually in search of discovery	4.37
3. I want to build something that will be recognized publicly	4.56
4. I always worry about what others will think before doing something important	2.34
5. When faced with difficulties, I look for alternative solutions	4.21
6. I prefer being my own boss	4.78
7. I always give the best of myself in everything I do	4.85
8. If I have thought about starting my own business, it would be something that I am thinking of doing within the next two years	4.89
9. When I say that I have thought about becoming self-employed, this is something that I am thinking of doing within the next two years or so	4.91
10. I'm now going to read out some statements made by people, who have considered starting their own business or going into self-employment, about why they might want to do this.	4.67
11. I want the freedom to adopt my own approach to work	4.92
12. I will get more respect working for myself	4.82
13. I would like to become self-employed because I realize finding paid employment would be difficult	4.94
14. I want to develop a hobby into a commercial enterprise	4.97
15. I want to fill a gap in the market	4.21
Mean for all Questions	4.53

Note: n = 679; ratings are on a 5-point scale
Strongly Disagree = 1; Disagree = 2; Neither = 3; Agree = 4; Strongly Agree = 5

As shown in table 2, the top five levels of agreement from this section-1 are: (1) Question-14/Q14 with a mean of 4.97; (2) Q13 with a mean of 4.94; (3) Q11 with a mean of 4.92; (4) Q9 with a mean of 4.91; (5) Q8 with a mean of 4.89. Only Q4 ranked as the lowest level of agreement with a mean of 2.34. This situation might be referred to the question that was posed in a negative manner. The author note that the overall mean rating for all fifteen questions was 4.53 which indicate the positive reactions from the respondents, which mean that the students were gained entrepreneurial experience received from WIL. This is also indicates that the students feel encouraged and prepared to start their own business – a process that can take months or years depending on the location, type, and complexity of the planned enterprise and product to be developed. Another interesting finding from this study is the commitment from the students as regard to enter self-employment within the next two years as well as have desire to develop a hobby into a commercial enterprise.

Table 3

List of questionnaire Section-2: The impact of WIL to the aspect of willingness to learn on how to deal with business risks

I would say that the biggest barriers for me to start a business are	Mean
1. Not having an idea for a business	1.58
2. Not knowing how to get equipment	4.32
3. The amount of time effect on family life	3.75
4. Getting the finance for the business	4.97
5. Worry of insufficient sales	4.54
6. Cash flow difficulties	4.77
7. The chance that my business might fail	4.89
8. Fear of getting into debt	4.21
9. Fear of not being able to keep up with repayments	4.35
10. The economic climate at the moment	4.95
11. The complexity of regulations relating to start a business	4.96
12. My age	1.25
13. My bad experience in the past	3.64
14. Fear of starting it from scratch	4.34
15. Does not generates enough income for me to live my daily life	4.76
Mean for all Questions	4.09

Note: n = 679; ratings are on a 5-point scale

Strongly Disagree = 1; Disagree = 2; Neither = 3; Agree = 4; Strongly Agree = 5

As shown in table 3, the questionnaire was posed in a positive and negative manner, in order to avoid the students' perceptions towards a particular response. This condition is clearly

shown from the mean scores that ranged from a low of 1.58 on “not having an idea” to a high of 4.97 on “getting the finance”. It is important to note that the highest mean score is for the Q4; however, this study has not been able to determine whether this factor studied affects business success. This survey also found that the large majority of the respondents expressed considerable disagreement with the limitation of age, which indicates the age is not as important as adapting the material to their level.

THE LESSONS “WIL” FOR OTHERS

As noted in the beginning of this paper, this is a story of conception and birth of WIL. It is a case where the author conducted action-research, as well as the response of the institution to implement one of its core values to build the entrepreneurial learning environment. Student feedback has been a crucial part of the assessment and has been invaluable for improving the course and the materials from year to year. The assessment process is particularly challenging in courses of this kind. It is important to use a mixture of assessment procedures in order to evaluate the impact and outcomes of very different kinds of projects and also to ensure that students are appropriately motivated. Due to the time constraints of out-class method, the author observed that when the students get excited about their project, they will spend an extraordinary amount of time and effort in developing their idea (which can have a negative impact on their other courses).

There are two sets conclusions to be drawn from this effort. One relates to the prospects for the students of becoming self-employed. The other relates to the lessons of WIL for other higher education institutions with some innate university-based resources. The implications of this study for future research in teaching the subject of entrepreneurship should amplify the socio-demographic characteristics of the students who wish to start their own business, as well as being able to analyze differences between male and female of managing their venture.

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