

## RETRAINING UNEMPLOYED GRADUATES THROUGH ENTREPRENEURSHIP PROGRAM

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### ABSTRACT

*Unemployment among graduates can be considered as one of the world problems. In Malaysia, this problem is more apparent after a recent global economic downturn, which has affected the demand of service and products. Many companies are freezing the recruitment of new staff, and some have opted to lay off their workers. As new graduates are flooding the job market, something needs to be done to overcome this phenomenon. One of the alternatives is through retraining of these graduates with new skills sought after by the industries. As globalization heightens the importance of human capital as a competitive asset, retraining facilitate the strengthening process of human capital, in order for higher growth economy to takes place. In conjunction with the vision of Malaysia in strengthening the workforce, especially in the role of training and retraining, universities have always been playing its part in providing supports to any organization, public or private, by offering advanced training programmes to skilled workers. Technical universities such as University Tun Hussein Onn Malaysia (UTHM) is committed in the training and retraining of skilled workforce with specific attention given to both intellectual and generic skills through hands-on approach. With dual-system training approach implemented in teaching and learning activities in the university, UTHM is recognized in producing and developing competent professional workforce and highly skilled human capital. Through its Continuing Education Centre (CEC), UTHM has been successful in organizing the Industrial Skills Enhancement Program (INSEP) for unemployed graduates which are fully funded by the Ministry of Finance since 2004. The 7 month program can be divided in the first 4 month industrial and professional development program at the university, and a further 3 months industrial training at the relevant industries. The 2 core areas focused in INSEP are specific industrial skills and generic skills. Entrepreneurship seminar is one of the comprehensive programs embedded in INSEP professional development programs aimed at fostering sustainable entrepreneurship and robust competitiveness among the candidates, so as to prepare them for the world of work. This paper will discuss about UTHM experience in retraining unemployed graduates with embedded entrepreneurial skills. A study has been done to assess the strength and capability of this program in improving students' generic skills with entrepreneurship as one of the criteria.*

### PROBLEM STATEMENT

The present global economic downturn has affected Malaysia and many other countries in the region. This has lead to increasing unemployment rates. Therefore, the universities need to work with other agencies to develop high value added programs and train the trainers in order to deliver high value training program. Entrepreneurship program, whether embedded, or stand alone, has been identified as beneficial to strengthen the human capital, in order to serve and involve with the activities of high income industries. The purpose of this paper is to recommend with the strategies and recommendations for strengthening skills training and retraining from the perspective of UTHM.

### THE ROLE OF UNIVERSITIES

Universities can be rightly considered the heart and soul of sustainable entrepreneurship leading to robust competitiveness as they act as generators of new and unique knowledge and as global trade shifts increasingly from trade of knowledge-based tasks and services in terms of total value added (Carayannis, 2001). In that sense, universities play an important role in the knowledge economy that is now taking shape. As society changes, the role of universities inevitably changes as well. New capabilities are becoming essential. Entrepreneurship programmes are being embedded in curriculum to foster entrepreneurial culture among

students. The entrepreneurial culture does not necessarily create more entrepreneurs, but will impart entrepreneurial spirit in order among the future workforce to increase work productivity.

## RETRAINING: UTHM EXPERIENCE

Parallel to the shift of a life-long learning culture, Continuing Education Centre (CEC), an outreach arm of UTHM offers a range of high quality and cost-effective tertiary level continuing education programmes which are aimed at enhancing specific professional and personal skills for the workforce and members of the wider community to further their careers as well as providing them with the knowledge that will help make an impact on their life. Programmes include educational, training and professional courses (delivered through short courses, long courses and offshore programmes), event management, and other human resource educational and training activities. Short courses are being offered in many areas. Some of the short courses are being developed for specific participants, such as groups from government's agencies, companies and participants from local communities. CEC usually will consult the participants in advance to customize their training programmes.

For the unemployed graduates, UTHM through CEC offer a range of Executive Diploma Programmes in many fields. With the initiatives and funding from The Ministry of Finance and The Ministry of Higher Education, UTHM through CEC has been successful in developing and implementing the Industrial Skills Enhancement Programmes or INSEP. CEC with the help of faculties from UTHM are responsible in organizing and implementing INSEP programmes, which usually run with two intakes every year. During the initial stages, the executive diploma programmes have been developed after the consultation with relevant stakeholders such as the industries, Ministry of Finance (MOF), Ministry of Higher Education (MOHE), and content experts. The programmes are structured based on the activities and technology in the workplace and are more oriented to the "hands-on skills". Teaching and learning methodologies are from lecturers, seminars, workshop, case studies and multimedia presentations. By combining the Problem Based Learning and Dual System Training approach, the programmes are designed in such a way that the skilled workers will not only master the technical skills, but also the generic skills including effective communication skills, entrepreneurship skills and the life-long learning skills. After careful consideration and planning, UTHM through CEC has been successfully able to develop several executive diploma programmes. Among them are:

- i. Executive Diploma in Manufacturing Technology
- ii. Executive Diploma in Industrial Trainer
- iii. Executive Diploma in Facilities Management
- iv. Executive Diploma in Medical Electronics Engineering
- v. Executive Diploma in Industrial Automation
- vi. Executive Diploma in Computer Network and Application
- vii. Executive Diploma in Building Construction Technology
- viii. Executive Diploma in Piping Engineering for Processing Plant
- ix. Executive Diploma in Microelectronic Technology
- x. Executive Diploma in Highway Construction and Maintenance
- xi. Executive Diploma in Welding and Non -Destructive Testing (NDT).
- xii. Executive Diploma in Entrepreneurship Technology Management
- xiii. Executive Diploma in Engineering Project Management
- xiv. Executive Diploma in Landscaping Project Management
- xv. Executive Diploma in Occupational Safety and Health
- xvi. Executive Diploma in Product Design
- xvii. Executive Diploma in Building Services (Mechanical and Electrical)
- xviii. Executive Diploma in Technology Management

The whole programmes are facilitated by course facilitators/tutors who are also the lecturers from UTHM, with considerable skills and experience in the respective industries. CEC advertises the admission of this programme in local newspaper and through its website. From UTHM experience, the demand for this INSEP programme is usually very high, therefore, careful considerations are being given to ensure the main objective of this programme is being met, that is to reduce unemployment rate. A committee of several lecturers and staff from CEC and the faculties are being formed to process the application form. Since this programme is

designed for the unemployed graduates, participants with lack of generic skills academic achievement need to be considered, as they contribute to the higher percentage of unemployed graduates.

### **Objectives of Industrial Skills Enhancement Program (INSEP)**

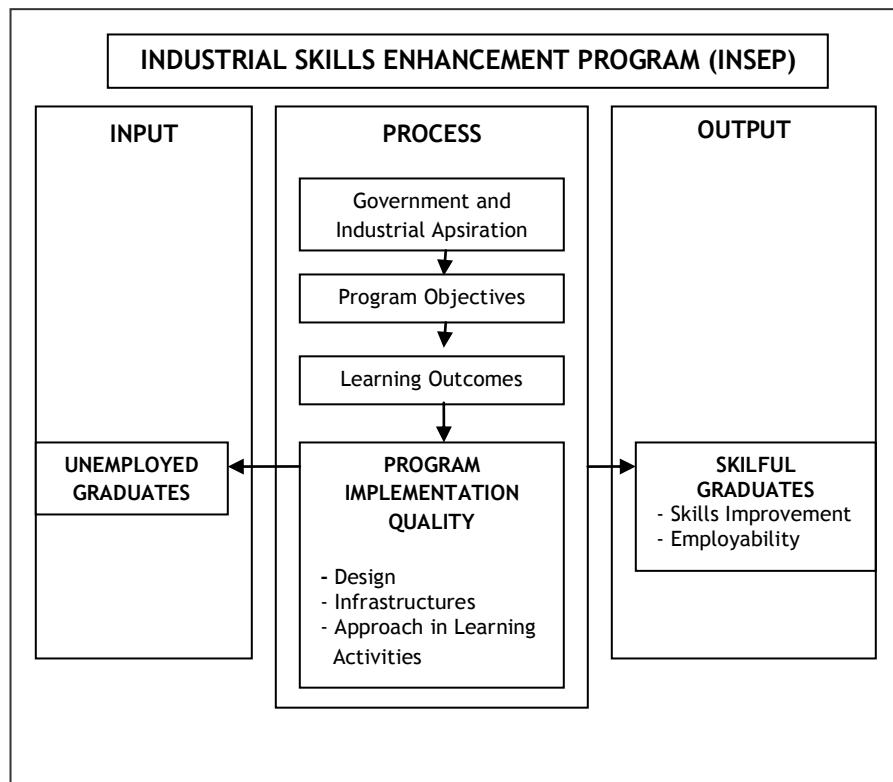
The objectives of the programme are:

- i. To reduce the gap of skills between unemployed graduates to the skills of required by the job market.
- ii. To increase confidence in communication especially in English.
- iii. To improve participants personality in the aspects of disciplines, time management, creativity and innovation.
- iv. To increase graduates knowledge and skills according to the market needs.

Participants who successfully completed the INSEP will be awarded with the Executive Diploma. The Executive Diploma will be awarded by UTHM.

### **Training Approach**

INSEP program at UTHM was developed based on the adaptation of Blanchard and Thacker (2004) open system and Finch and Crunkilton(1992) vocational program. The theoretical framework is depicted below.



**Figure 1: Theoretical Framework for INSEP**  
(Source: Continuing Education Centre, UTHM)

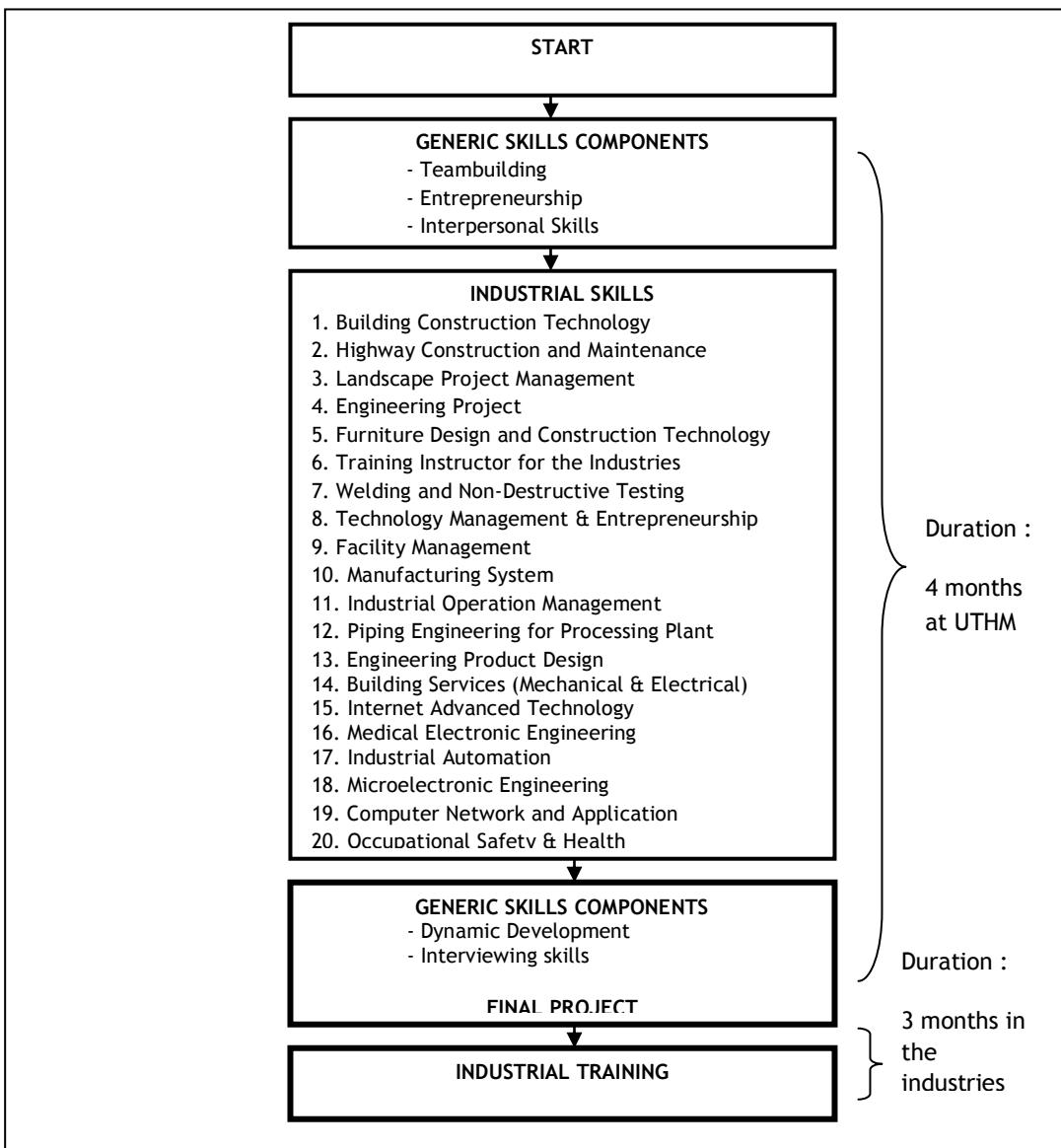
With the combination of Problem Based Learning and Dual System Training approach, the programmes are designed in such a way that the skilled workers will not only master the technical skills, but also the generic skills including effective communication skills, entrepreneurship skills, and life-long learning skills. Table 1 below summarizes the training approach.

Programmes	Credit Hours
Generic Skills	
Professional Development	2
Effective Communication	2
Entrepreneurship	1
Teaching and Learning	13
Final Project	6
Total Credit Hours	24

**Table 1: INSEP Training Approach**

The INSEP program will take 7 months to complete. This can be divided into two main categories, the 4 months on-campus learning and 3 months industrial placement. The details are described below.

- i. On campus
  - a. Theoretical and Practical Learning
  - b. Lecture, tutorial, discussion/group activity, seminar, projects.
- ii. Industrial Placement
  - a. Guided by supervisors both from UTHM and the Industries.
  - b. Students prepare a report based on project/assignment during attachment.



**Figure 2: Flow Chart of INSEP Implementation**

Participants will also undergo compulsory generic skills modules which involve stand-alone subjects such as Teambuilding, Entrepreneurship, Interpersonal Skills, Dynamic Development, and Interviewing Skills. Teambuilding, Entrepreneurship and Interpersonal Skills program will be organized during the first month of the INSEP program, while Dynamic Development and Interviewing Skills will be organized during the last month of the INSEP program.

### Training Curriculum

INSEP training curriculum and the program structure are designed after discussion and feedback from the industries so that the program will be able to satisfy employers need. In order to ensure that the participants be able to master the hands-on skills and be more competitive in the job market, the training concept is dual system oriented or known as dual system training. This approach is oriented towards practical, students' centred learning, with learn and work based assignments. Beside these, workshop, seminars and training camp in and out of campus will enrich the participants with the generic skills required by the job market. The implemented generic skills are using the indicators set by The Malaysian Higher Institutions Generic Skills

Development Guidelines; communication, problem solving, continuing education, entrepreneurship, ethics and leadership.

Participants' assessment and evaluation are done through test questions, participants' participation in group activities, projects, and assignments throughout the program. Conceptual design used for this program is based on outcome based education that fulfills the requirement of Malaysian Qualification Framework (MQF). The curriculum was developed based on job mapping done through training need analysis from the industries and among the relevant stakeholders. The learning outcomes are based on the vision, mission and university philosophy of education. The curriculum structure was designed with specific attention to the duration of the program. The mode of delivery is based on students' centred learning, which combines several methods of delivery. The main delivery method is Project Oriented Problem Based Learning (POPBL) and Lecture-Cum-Laboratory. The coordinator acts as a facilitator and consultant. This method is very effective with the foundation of this program which requires industry style of training. The design of INSEP curriculum can be summarized in Figure 3 below.

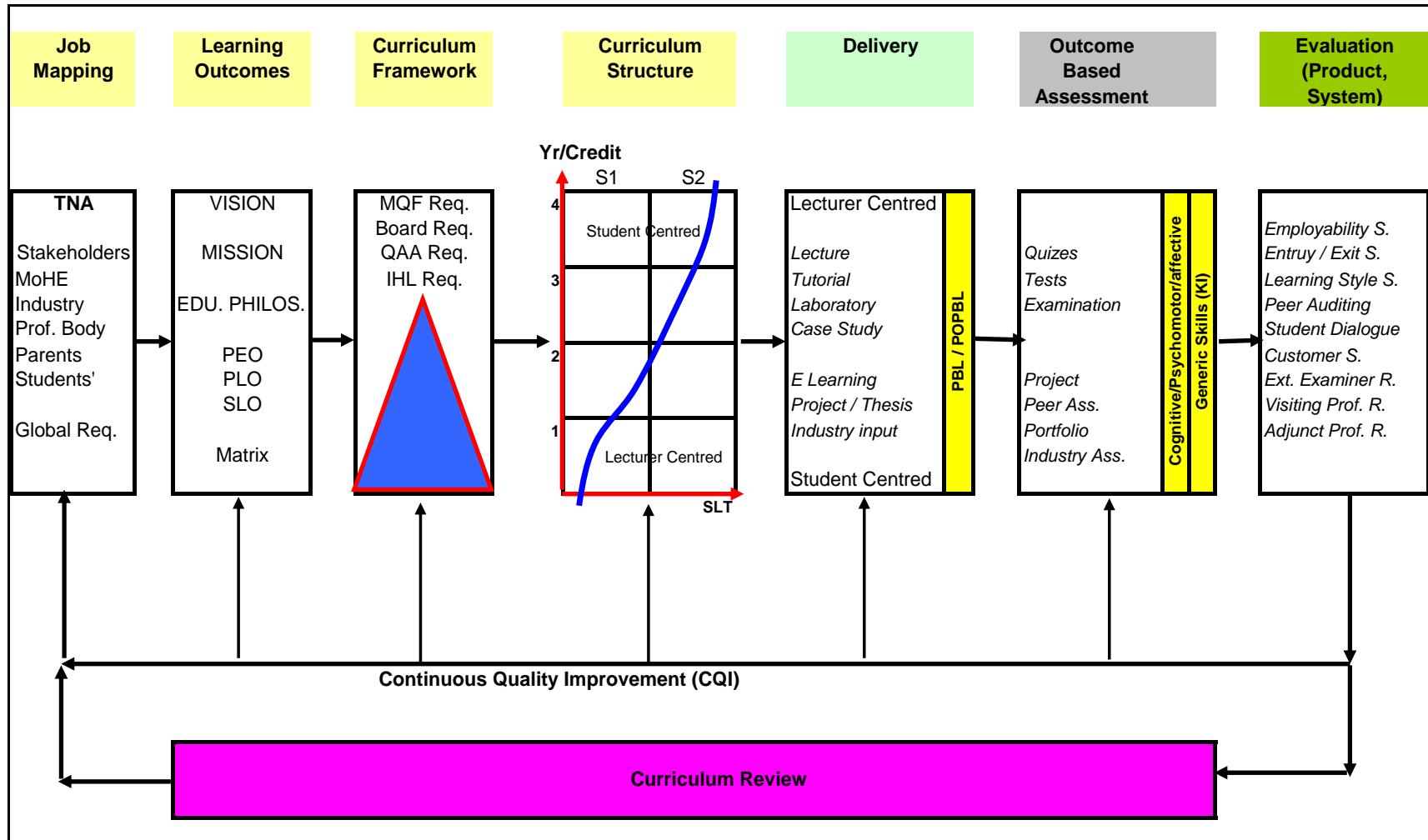


Figure 3 : INSEP Curriculum Development Design

## Entrepreneur Programs

### **Program Goals and Objectives:**

From UTHM experiences with unemployed graduates, many of them lack exposure to the work world and need basic knowledge of what is required for them to become employment ready. Many youth have very limited knowledge about the opportunities that are available to them. Furthermore, many students lack basic information about the skills required to compete successfully in our 21st century economy. Entrepreneurship empowers young people to build a vision for the future. Youth will explore new opportunities, and explore career and educational aspirations, leaving with the skills, understanding and interest to be successful in employment and entrepreneurship. This will be accomplished through building basic employment and interpersonal skills, career exploration and preparation, training in finance and budgeting, business plan development, enhanced computer and multimedia skills, leadership skills, job shadowing and internship opportunities providing monitored opportunities to build relationships and connections with local employers. Therefore CEC has thoroughly studied the needed objectives to foster entrepreneurship skills among these graduates. They are to:

- Promote a culture of enterprise and entrepreneurship as a viable career option
- Inspire and equip participants in the local community to learn and succeed through enterprise
- Stimulate entrepreneurial thinking amongst participants
- Help participants become enterprising - help them establish business and social enterprises in the community
- To enhance leadership skills and increase community awareness in participants
- To enhance the educational experience of future leaders.

### **Program Curriculum**

This will be accomplished through a variety of activities including (but not limited to) instructional sessions on resume writing, interactive, interpersonal skill development utilizing a variety of curriculum, financial literacy instruction and exposure to local successful business owners.

UTHM through CEC offers a series of training modules and practice sessions as an introduction to enterprise. This is done on a rolling program basis to allow participants to join at any time. Topics covered in each session are:

1. What is Enterprise?
2. Why Entrepreneurship?
3. Who are Entrepreneurs?
4. How do I become an entrepreneur?
5. How do I find a good business idea?
6. How do I organize an enterprise?
7. How do I operate the enterprise?
8. What are the next steps to become an entrepreneur?
9. *Teamwork Skills* - Understand that success in today's competitive business world is about working together.
10. *Time Management* - Business is about meeting deadlines
11. Structured Analysis and Techniques used regularly in business
12. *Creative thinking* - Critical in keeping ahead of the competition
13. Analysis of the external competitive environment
14. Marketing analysis
15. Business Planning, Developing a Budget
16. Business Development and Growth Strategies

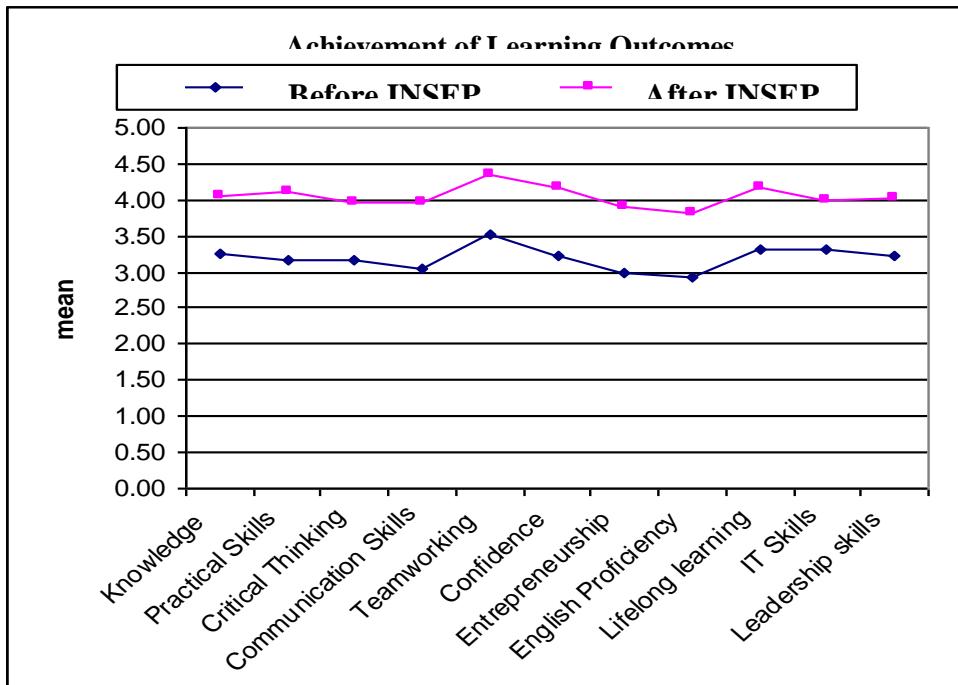
During this seminar, participants are being given the necessary knowledge and skills in developing business proposal. A successful local entrepreneurs in relevant fields will also be invited to share their experiences with the participants. With the help of expert facilitators, participants will be given necessary guidance to develop their own business proposal, which will be presented and graded by the facilitators as part of the assessment. Beside the entrepreneurship seminar, participants will also need to organize several entrepreneurial based activities, which will involve the communities. The justifications for these activities are both to impart entrepreneurial culture among the participants, and also to improve their communication skills.

One of the activities that has been successfully organized is a short course in fertigation. INSEP participants from Industrial Trainer programme, with the help of local agricultural department, have been able to organize a two-day short course on fertigation technique for local communities, and the demand for this course was overwhelming.

### **Tracer Study**

Tracer studies will be done at the end of each completed program. This is important to look at the marketability and the employability of the INSEP participants. Beside these, tracer studies will also be done to:

- Evaluate participants' perception toward the curriculum, instructors/facilitators and the service being offered.
- Evaluate the extent of INSEP in helping participants in improving generic skills and employability skills.
- Evaluate participants' job profile.
- Further improve the INSEP program.

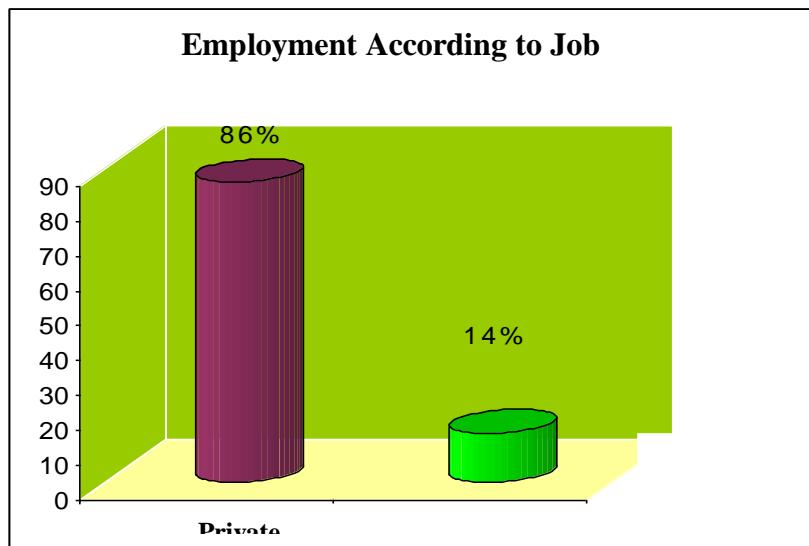


**Figure 4: Results of a T-Test Measuring Achievement of Learning Outcomes before and after INSEP.**

In figure 4, data from the t-test shows that all components of the generic skills have been improved after the participants undergo the INSEP program. For entrepreneurship component, the mean before attending the INSEP program was 3.00 and has increased to 4.00, after the participants attended the program. Other components that contribute to better employability skills are also showing positive improvements.

In figure 5, results show that more participants are hired by the private sector. This trend shows that the skills of the participants are being recognized by the industries, who are showing their confidence toward the graduates, who were unemployed before they entered the program.

Table 2 summarizes the tracer study findings from INSEP 2005 to INSEP 2008. Overall, more than 75 percent of the participants have been able to secure their jobs right after the industrial placement. This is a clear indicator of the success of this program in improving participants employability skills.



**Figure 5: INSEP Participants Employment According to Job Sector**

**Figure 5: Employment According to Job Sector**  
(Source: Continuing Education Centre, UTHM)

Year	Participants Employment Rates (%)
2005	77
2006	77
2007	85
2008	83

**Table 2: INSEP Participants Employment Rates**  
(Source: Continuing Education Centre, UTHM)

### Recommendations

In general, several recommendations as listed below could be considered:

1. Leader of the universities must possess entrepreneurial skills.
2. Entrepreneurship and innovation are the key drivers of sustainable economic development.
3. Universities must change its philosophy of creating a high number of programs to the creation of high quality and dynamic program by fostering entrepreneurship culture.
4. Invest on the professional developments of teachers and trainers.
5. Encourage research and development in the areas of high income.
6. More funding allocated to business and management studies to provide across the board world class education.
7. Schools play an important role in developing lifelong skills and the future of young people. We need to partner with schools to introduce and create an awareness of enterprise and entrepreneurship by providing resources and training that will engage students/pupils and challenge their attitudes, ideas and perceptions about business.

### Conclusion

UTHM proposes and recommends the development of program related to improve human capital through entrepreneurship skills development embedded in lifelong learning programs. The new economic development of high value added education and training create value added business, which in turn create high income jobs and market value. This education and training are driven by the application of new approaches and technology in the development of competent and dynamic human capital.

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