International seminar "the challenge for vet in developing skills for today's workforce"

Program Book

INTERNATIONAL SEMINAR
VOCATIONAL EDUCATION AND TRAINING

The Challenge for VET in Developing Skills for Today's Workforce

Yogyakarta, 18 May 2010

Graduate School
Yogyakarta State University
Indonesia

PREFACE

This program book compiles all abstracts from the International Seminar on Vocational Eductaion and Traning held by the Graduate School of Yogyakarta State University in cooperation with the SEAMEO Voctech on 18 May, 2010. This seminar is conducted to celebrate the 46th Yogyakarta State University Anniversary.

The main theme of this seminar is "The Challenges for Vocational Education and Training in Developing Skills for Today's Workforce". Three sub themes are covered in this seminar: 1) Vocational and technical education curriculum for accommodating soft skills for today and future workforce, 2) Praxis and future teaching and learning soft skills, life skills, and employability skills in vocational education and 3) Assessment for soft skills, life skills, and employability skills teaching.

The committee would like to thank everyone involved, and those who have given contribution for the success of seminar.

Yogyakarta, 18 May 2010
Editor

E-LEARNING READINESS OF VOCATIONAL SECONDARY HIGH SCHOOL IN ENHANCING GLOBAL WORKFORCE

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Abstract

E-learning readiness is significant to the success of education programmes that utilize Information and Communication Technology (ICT) resources. This paper will discuss and analyze the E-learning readiness of vocational secondary high schools (SMK) in Yogyakarta Special Province in enhancing global workfroce.

Data were gathered from sample of vocational schools in Yogyakarta through direct observation of facilities and support infrastructure, in-depth interview, and questionnaire about the understanding of computers, ICT-based instruction and e-learning. Analysis was performed based on three factors: facilities and infrastructure readiness, human resource readiness and learning resources readiness.

The results show 1) readiness of vocational schools in Yogyakarta in implementing e-learning from the aspect of infrastructure and facilities is sufficient but for complex content needs an upgrading to become higher specification, 2) concerning aspects of human resources (teachers, students and employees) are sufficient but need to be enhanced in the future, 3) concerning aspect of learning resources readiness is qualitatively still less sufficient, so it must be enhanced to implement e-learning based instruction.
Keywords : E-learning readiness, human resources, ICT, vocational school

employees, staff elements and external customers such as students, parents or society, government/jobs.

From the result of the research, known that the impact of implementation of ISO 9001: 2008 in SMK Negeri 13 Bandung were : making the work system be a standard document, ensuring the process carried out in accordance with established management system, improving employee's motivation, carrying out a job in a clear relationship between parts involved, standardizing the various policies and operating procedures in the organization, establishing a solid foundation in building attitude and desire for any progress and increasing image quality organization in the market, with that results can enhance the efficiency and quality of graduates for the fulfillment of customer satisfaction which was marked by high rates of graduates absorption in the jobs.

Keywords : Quality Management System (QMS), customer satisfaction

WELCOME ADDRESS FROM RECTOR YOGYAKARTA STATE UNIVERSITY

It is a great pleasure for me to welcome you to the International Seminar on Vocational Education and Training "The Challenge for VET in Developing Skills for Today's Workforce" held in Graduate school, Yogyakarta State University on May 18, 2010. The theme is selected in line with the theme of the 56th Yogyakarta State University's Anniversary 2010 "Character Education"

Human resources development in the current era does not only demand high competent but also productive workforces. Due to rapid changes of technology, the produced goods and services will be obsolete within a shorter period of time, therefore without innovation and creativity in the design and process of production, the product will not compete in the global market.

In addition to hard skills, nowadays competent workforce needs more various skills commonly called soft skills, employability skills, and life skills, or common skills. Although these skills contain similar attributes and have intersection among them, they can easily be clustered into three categories namely personal skills, thinking skills, and social skills.

All nations face similar challenges and some have confronted the challenges which response are reflected in their educational policies. Different social and cultural context will fabricate different educational praxis in developing the required skills. This seminar is intended to provide opportunity for participants to share best practices, concepts, and experiences in cultivating

values and developing skills as initiated for today and future workforce.

I would like to thank everyone who has participated in this seminar, especially for the guest speakers and presenters. I would say congratulation for Graduate School of Yogyakarta State University which has succeeded conducting this seminar.

I wish everyone can take great benefit from what is being discussed during this seminar.
Thank you.

Rector of Yogyakarta State University

Dr. Rochmat Wahab, M.Pd, M.A

THE EFFECTIVENESS OF IMPLEMENTATION OF QUALITY MANAGEMENT SYSTEM (QMS) ISO 9001: 2008 ON VOCATIONAL EDUCATION

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Abstract

This study focuses on the effectiveness of implementation through the Quality Management System (QMS) especially ISO 9001: 2008 including 8 principles: (1) customers focus, (2) leadership, (3) involving people, (4) process approach, (5) systems approach, (6) continuous improvement, (7) factual decision making, and (8) mutually beneficial supplier relationships, in order to fulfill customer satisfaction with the high absorption of graduates in business and industry, as well as understand the constraints and its effects after implementing ISO QMS 9001: 2008.

Research method used were descriptive analytical method with qualitative approach. The use of this method and approach is started from the main purpose of research, namely to describe and analyze the data and information field in accordance with actual conditions. The research location is SMK Negeri 13 Bandung as a Vocational High School which got the first certification ISO 9001: 2000, as the international standard pioneer in West Java from PT. TUV International Indonesia. Again in 2009, this school can upgrade the latest version of its certification with ISO 9001:2008. The respondents were both parties internal customers including teachers,

critical thinking and problem solving skills; (2) the ability to work and learn as a team with different individuals across the nation and across cultures, (3) the ability to plan based on accurate information; (4) the ability to adapt to rapid change; (5) international communication skills both oral and written, and (6) having a future vision and willing to self development. Third, vocational education teachers equipped their competency-based instruction with the constructivist learning approach.

Keywords: soft skill, graduates, vocational education, global era

WELCOME ADDRESS FROM DIRECTOR OF GRADUATE SCHOOL OF YOGYAKARTA STATE UNIVERSITY

Distinguished Guests, Keynote Speakers, Invited Speakers, Participants, Ladies and Gentlemen.

It gives me great pleasure to welcome you to the International Seminar on Vocational Education and Training "The Challenge for VET in Developing Skills for Today's Workforce" held in Graduate school, Yogyakarta State University on May 18, 2010. The theme is selected in line with the theme of the 56th Yogyakarta State University's Anniversary 2010 "Character Education"

I would like to take this opportunity to express my sincere thanks to the invited speakers: Mr. Alias bin Hj. Abu Bakar, the Director of SEAMEO VOCTECH, Brunei Darussalam; Prof. Dr. Tod E. Treat from Illinois University at Urbana, USA; Prof. Dr. Jailani Md. Yunos from UTHM Malaysia; Prof. Slamet, Ph.D. from Yogyakarta State University; for their kindly participation as keynote and invited speakers in the seminar.
This seminar is being organized by Graduate School of Yogyakarta State University in collaboration with Faculty of Engineering, SEAMEO VOCTECH Brunei Darussalam and University of Tun Hussein Onn Malaysia. It is intended to provide opportunity for the participants to share their insight, concepts, experiences and best practices in cultivating values and developing the skills required by today's and future workforce.

I hope this seminar will give benefit to face today's and future workforce. I do wish that this seminar will be a starting point for future collaboration in research and development between Yogyakarta State University and those three institutions: SEAMEO VOCTECH; Illinois University at Urbana, USA; UTHM Malaysia.

I wish you a most fruitful day of interesting and stimulating discussions and sharing of knowledge.

Thank you.

Prof. Soenarto, Ph.D
Director of Graduate School, Yogyakarta State University

SOFT SKILL: A SOLUTION FOR GRADUATES' COMPETITIVENESS IMPROVEMENT OF VOCATIONAL EDUCATION IN GLOBAL ERA

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Abstract

Globalization and modernization have changed all aspects of human life and have given challenges for vocational education. The global culture has changed the way from real communication to a virtual communication; the economy has developed from industrial-based economy to a knowledge-based economy. It has changed the industry's needs toward the worker's skill and capabilities. These changes have implications on the competence of vocational education graduates. On the other hand, the number of graduates outnumbers the job availability, which leads to a very tight competition.

The problems faced by vocational education in preparing qualified are: (1) what competencies of vocational education graduates should possess in the 21st century?, (2) what competencies that the industry needs in the 21st century?, and (3) how to perform the effective vocational learning to shape such competency?

In the 21st century, vocational education graduates are required not only to have a vocational competence but should also have good softskill. Second, the 21st century industry requires graduates who have competence covering soft skills, such as: (1)

Models of cooperative learning, problem-based learning, contextual teaching-learning, and authentic evaluaton method can be selected tas model for learning and evaluation of VET's soft-skill improvement.

Keywords : Life Skill, Competency, General Life Skill

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WELCOME ADDRESS FROM THE CHAIRMAN OF THE COMMITEE

As the committee chairman, I would like toextend a warm welcome to all presenters and participants to Yogyakarta. I am so pleased to see so many colleagues, experts, and professors from the United State, Malaysia, Brunei Darussalam, and Indonesia, all in this international seminar.

Vocational and Technical Education is a subject very close to our heart. It is valued all over the world for its ability to develop human resources and contribute to the economic growth. This seminar is conducted as collaborative effort between Yogyakarta State University and SEAMEO Voctech of Brunei Darussalam to build up roles to enhance the growth of vocational and technical education in South East Asia.

The Challenge for VET in Developing Skills for Today's Workforce" is a very inspiring theme to solve complex problems in preparing youth to be productive human. This seminar will allow the participants to present the latest research findings and at the same time share new innovative ideas of learning skills, and best practices in developing skills for today and future workforce.

I would like to take this opportunity to give my highest gratitude to all sections of the seminar committee and everyone involved in doing this excellent job; to the academic section who have reviewed the submitted papers so that the program handbook and soft proceeding are at hand of every participant. In this occasion, I would also like to congratulate the

DEVELOPMENT OF LIFE SKILL PROGRAM WITHIN THE VOCATIONAL EDUCATION AND TRAINING CURRICULUM

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Abstract

In principle, education serves as an instrument which helps students to improve and develop themselves as independent individuals with proven competency that they can benefit for their living and handling real problems in the community. Vocational education is intended to prepare its graduates to become independent workers and/or labours relevant to the industrial demands and needs. The challenges they are facing come in the form of dynamics of change and uncertainty in the real working world.

The implication is that vocational education programs, apart from being required to provide the graduates with working competence, are required arm the graduates with soft skill which may help them to adapt and overcome problems of uncertainty in their career both in the work environment and the community. Therefore, development of curriculum of vocational high school is oriented to preparing its graduates with skill by furnishing them competence adjusted to the labour market demands, and with a soft skill in the form of life skill, especially the general skill, so thtat the graduates can get the working competence and are able to handle da-to-day problems in their job, as an individual in a community, as ad God's human.

THE DEVELOPMENT OF ENTREPRENEURSHIP THROUGH VOCATIONAL SECONDARY HIGH SCHOOL

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Abstract

Vocational school graduations are the major contributors to the unemployment in Indonesia. Such condition is not inline with the aim of the Vocational School and it will reduce the justification of Vocational School existence.

The factors are; the disparity of quality and the type of expertise possessed by the quality of vocational school graduates and the types of skills required at work. In addition, it also due to the number of vocational school graduates in various skills programs is higher than the job vacancy in several economic sectors in Indonesia.

To reduce unemployment of vocational school graduates, the program should be developed to increase the entrepreneurial spirit of vocational schools' students. The possible steps can be done is to increase the students' mastery of skills through the activities of Production Base Training (PBT), encourage, and motivate students so they want to utilize the skills that they have learned to open their own business (entrepreneurship).

Keywords : Vocational School, unemployment, entrepreneurship

participants whose papers have been selected to be presented in this seminar.
I hope the seminar can nourish the communication and co-operation between educators, managers and stakeholders. I thank you for your presence and active participation in this seminar. I urge you to continue building up ideas that you have discussed together over one day and to bring them back to your countries so that we can achieve our shared vision of further developing and strengthening vocational education for future generations.

Thank you very much indeed.

Prof. Pardjono, Ph.D.
Chairman of VET International Seminar 2010
Head Department of Vocational and Technology Education
Graduate School, Yogyakarta State University

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interpersonal skill, and life skill we concern are information communication and technology (ICT) skill, and entrepreneur skill.

Keywords: soft skill, life skill, vocational education

EMPOWERING SOFT SKILL AND LIFE SKILL TO IMPROVE GRADUATE COMPETENCY

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Abstract

Changing world is continuously happen, and that much is a commonplace. But, in the present context, there are two further points that can be made immediately. Firstly, the range of the changes confronting the world and those who live in it are surely not always appreciated. Secondly, the working out of the implications of change for education is still a task that is largely before us. By addressing both of these challenges, we shall necessarily come to a more informed appreciation as to what graduate might mean in this era, especially for vocational education and training (VET) graduates.

Both soft skills and life skills are the most useful for VET students in facing their future at workplace as employee or in real world of work and as an entrepreneur after their graduate from VET school. To improve graduate competence, soft skills and life should be integrated in learning classroom and all education environment.

Variety soft skills and life skills can be integrated in classroom learning or in other place. However, we can identified some soft skill which very play role in shaping graduate performance in the future. Life skill was developing through work based learning which contributes to both the intellectual and career development of VET students. In this paper, soft skill that we concern are literacy skill,

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The ability of student vocational Education to evaluate performance, 5) Student of vocational education ability to refer and apply knowledge through the virtual laboratory. The effectiveness in virtual laboratory will be study after the student used the lab itself :1) Ability to access in various form of question regarding to the topics, 2) Ability to used the topics itself to execute practical work in Engineering learning.

VIRTUAL LABORATORY TO SUPPORT PRAXIS AND EMPLOYABILITY SKILLS STUDENT OF VOCATIONAL EDUCATION

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Abstract

Active learning is usually used as a method for improving the effectiveness of lerning by employing different mode of learning, including multi media. The advance of ICT enable the online enrichment of learning materials through the availability of tutorial, modules, solved problem and even online virtual laboratory. Virtual laboratory usually combined visual and audio mode, and threrefore need the active participation of the students to enhance the understanding of the learning materials.

The software for building virtual laboratory is written by using Macromedia Flash MX, 3-D Max, PHP, MySQL and HTML where animation was used to raise the users' interest. The development of virtual laboratory was involved in development of instructional designing model (ID model). The development of the virtual laboratory will used the theory of constructive, cognitive and contextual for Student in Vocational Education by the cognitive domain in Bloom Taxonomy to strengthen cognitive skill.

The V-lab focus on: 1) Contents to achieve the objective, 2) Result to be achieved and measured, 3) Delivery content strategy, 4)

THE SCHEDULE OF INTERNATIONAL SEMINAR

"The Challenge for VET in Developing Skills for Today's Workforce"
Graduate School, Yogyakarta State University
Tuesday, 18 May 2010

HOUR	AGENDA	PRESENTER	PIC
07.30-08.00	Registration		Secretariat
08.00-09.00	Opening Ceremony Traditional Dance • Report and Welcome Address • Speech and opening of the Rector	**Prof. Soenarto, Ph.D.** (Director, Graduate School, YSU) **Dr. Rochmat Wahab, M.A.** (Rector of YSU)	MC: Ashadi, S.Pd.
09.00-09.45	Keynote speech	**Mr. Alias bin Haji Abu Bakar** (Director, SEAMEO VOCTECH, Brunei Darussalam)	Moderator: Suhaini M Saleh, M.A.
09.45-10.15	Coffee Break		

10.15-12.15	Panel Session	**Prof. Dr. Tod E. Treat** (Illinois University at Urbana, USA) **Prof. Dr. Jaelani Md. Yunos** (UTHM Malaysia) **Prof. Slamet, Ph.D.** (Yogyakarta State University)	Moderator Basikin, M.Ed
12.15-13.00	Lunch Break		
13.00-14.30	Parallel Session I (3 groups)		Moderator: Ghani Johan, M.A.,Dr. Bruri Triyono, Istanto, M.Pd.
14.30-16.00	Parallel Session II (3 groups)		Dr. Widyastuti Purbani, Asruddin B. Tou, Ph.D.
16.00-16.15	Closing	Prof. Pardjono, Ph.D. (The Chairman of the committee, YSU)	

EXPERIENTIAL LEARNING IN ENTREPRENEURSHIP EDUCATION TO PREPARE THE CHALLENGING OF TODAY'S WORKFORCE

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Abstract

The numbers of educated unemployment are increasing dramatically every year. These graduates failure to survive in the work place is not mainly because of their lack of capability, but because of their poor soft skills or entrepreneurs skills. It needs a deeper attention from academician to set up entrepreneurship education to the students.

Thus, to teach the entrepreneurship education more effective, it requires the accomplishment of entrepreneurship spirit to be enclosed in each course in vocational education. The students should experience the entrepreneurship education, reviewing, concluding, and planning it for the next step. These what is called experiential learning.

It is really expected that through the implementation of experiential learning with entrepreneurship spirit, the graduates will be able to make better preparation to face the challenging of today's workforce.

Keywords: entrepreneurship education, experiential learning, today's workforce

INFORMATION SYSTEM TO SUPPORT FACILITY MAINTENANCE MANAGEMENT IMPLEMENTATION IN VOCATIONAL HIGH SCHOOL

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Abstract

Vocational Secondary High School generally has many equipment and facilities to run their activity. Those equipment and facilities need maintenance periodically so that they can operate optimally according to the function as a means of production that produce profit. Ignoring that can retard school activity. The facilities will be quickly experiencing damage. To avoid that, we need good steps of systematic facilities maintenance procedure.

One solution is by developing information system for facilities maintenance management (called SIMAF). SIMAF developed by four stages of SDLC (System Development Life Cycle). Those stages are designing, planning, implementation and program testing.

The result is prototype software called SIMAF. This program is a prototype, so that it still needs a lot of developments. But SIMAF supposed can be a starting point of developing a better program, so that it will be applicable well in Vocational High School in future.

Keywords: facilities, maintenance, Information System

Parallel Session
Theme 1. Curriculum

Time	Presenter	Paper
13.15 – 14.15	Anas Arfandi	Virtual Laboratory to Support the Student's Practice and Employability Skills in Vocational Education
13.15 – 14.15	Hendra	Empowering Soft Skill and Life Skill to Improve Graduate Competence
13.15 – 14.15	I Made Suarta	VET CURRICULUM, TEACHING, and LEARNING FOR FUTURE SKILLS REQUIREMENTS
13.15 – 14.15	I Made Suarta	The re-configuration of vocational schools and its prospects to provide innovative and competitive vocational workforces
Break		
14.30 – 15.30	Mr. Putu Sudira	Softskills Integration in The Practical Learning for the Industry Related Job Readiness
14.30 – 15.30	Siti Mariah	A Hypothetical Model for Developing Employability Skills Student
14.30 – 15.30	Y. Gatot Sutapa Yuliana	Virtual Laboratory to Support the Student's Practice and Employability Skills in Vocational Education
14.30 – 15.30	Soeryanto	Empowering Soft Skill and Life Skill to Improve Graduate Competence

Parallel Session
Theme 2. Praxis Learning

Time	Presenter	Paper
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13.15 – 14.15	Bambang SHP	The Development of Entrepreneurship through Vocational Secondary High School
13.15 – 14.15	Bernardus Sentot Wijanarka	Improving Lifelong learning Skills Through The Use of Computer Application Software as a Learning Tool
13.15 – 14.15	Dewi	Experiential Learning in Entrepreneurship Education to Face the Challenge of Today's Workforce
Break		
14.30 – 15.30	Isma Widiaty, Dadang Lukman Hakim, Suciati	Acquiring Soft Skill by E-Learning
14.30 – 15.30	Istanto Wahyu Djatmiko	The Teaching Strategies in Vocational Education in The Knowledge Era
14.30 – 15.30	Samsul Hadi	Improving TTVET Student Competency on Computer Programming using English in Teaching Learning Process
14.30 – 15.30	Sudji Munadi	Development of A Modul for Computer Aided Contextual Constructivism Learning in the Subject of Machining

INTEGRATED COMPETENCY-BASED ASSESSMENT IN VOCATIONAL SECONDARY HIGH SCHOOL IN YOGYAKARTA

Budi Santosa

Abstract

Though competency-based assessment/CBA had been undertaken by vocational secondary schools/VSS but it could not guarantee the ability of the VSS students after they worked. On the other hand, VSS students as the owners of the competency certificate who had passed the CBA did not receive respects from the industry properly. Integrated competency-based assessment/ICBA model is a competency based assessment model combining a curriculum development, implementation of competency-based training and implementation of on-the-job training/OJT correctly. Curriculum development involves the world of work in order to meet the industrial needs. Competency-based training carried out in accordance with the principles of learning process on competency standards, flexibility, and mastery learning. OJT Program is implemented by agreement between vocational schools and industry partners. The VSS students will have a good knowledge and skills and will pass when they take part in the CBA carried out by independent institutions on condition that the curriculum development, CBT and OJT are done properly.

Keywords: competency-based assessment, curriculum development, CBT and OJT.

In the end of observation, there are findings that most of VET students did not adopt internet as learning resources to dig up more relevant knowledge and understanding because there was no assignment given by teachers relating with internet. Besides, the insufficiency of facilities required to adopt internet at school also contributes on this behavior. Recommendations for this situation is giving instructional manipulations to force the students to adopt internet as learning resources and provide sufficient facilities required to adopt internet. Finally, the soft skill desired grows up on the student individual.

Keywords : PBC, soft skill, learning, internet

Parallel Session
Theme 2. Assesment

Time	Presenter	Paper
13.15 – 14.15	Ana, Ade Gaffar Abdullah, Liunir Z	Assessment of Soft Skill in Project-based Learning Using Fuzzy Grading System
13.15 – 14.15	Deny Budi	Information System to Support Facility Maintenance Management Implementation in Vocational High School
13.15 – 14.15	K. Ima Ismara	Enhancing Perceived Behavior Control As Soft Skill by Adopting Internet in Learning Toward Vet
Break		
14.30 – 15.30	Budi Santosa	Integrated Competency-Based Assessment in Vocational Secondary School in Yogyakarta
14.30 – 15.30	Muhidin	The Effectiveness of the Implementation of Quality Management System ISO 9001: 2008 in Vocational Education
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LIST OF PAPER

ENHANCING PERCEIVE BEHAVIOUR CONTROL AS SOFT SKILL THROUGH ADOPTING INTERNET IN LEARNING TOWARD VET

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Abstract

Belief is really needed by people who want to succeed their goal or a performing of behavior. They should analyze what makes they believe that they will reach the goal and be full of power enough to provide all resources required for manifesting the goal. Concept of the belief is called as Perceived Behavioral Control (PBC). Regarding the characteristic of that, PBC is therefore assumed to have several soft skill items which are really needed by the VET students. The role of teachers and stakeholders of VET really affect the student‘s acceptance for the soft skill items of PBC.

By means of observational research on several VET institutions over Special Province of Yogyakarta and through behavior target of adopting internet as learning resources, the authors intend to prove whether VET students are affected by teachers and stake holders, chief of VET institution and staff. Besides, The authors ought to discuss how to sharpen the soft skills of student especially on thinking, socializing and personalizing skill through PBC toward the target behavior.

managing class/lab, and enhancing students' motivation. Nevertheless teaching-learning process could improve students' motivation, understanding, and percentage of final grade of B or above more than 70%.

Keywords: computer programming competency, English teaching – learning process

IMPROVING TTVET STUDENT COMPETENCY ON COMPUTER PROGRAMMING USING ENGLISH IN TEACHING LEARNING PROCESS

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Abstract

This research purposed to explore English teaching-learning model suitable to Computer Programming course and the effect of the teaching-learning model to motivation, understanding, and final grade of the students of Teacher Training in Vocational Education and Technology (TTVET), i.e. Electrical Engineering Education Study Program of Faculty of Engineering of Yogyakarta State University.

This research was classroom action research. The model used in this research was model of Kemmis and McTaggart that consisted of planning, action, and reflection steps. The performance measured in this research were concordance of teaching-learning process with the plan, students' motivation to attend the course, students' understanding to the course material, and the percentage of students achieved grade B or above. Instruments used in this research were observation form for measuring those performances.

The findings were: the English teaching-learning process conducted in this research was not optimal yet in the aspects of explaining course material, varying teaching-learning process,

strategies, learning environment, and student self-concept. These factors as a determinant variable in enhancing students' employability skills. In hypothetical model, learning system and learning environment are identified as independent latent variable, self-concept as moderating variable. Meanwhile, employability skills identified as dependent latent variable. Learning system and learning environment is hypothesized have direct influence to enhancing graduates' employability skills, and have indirect influence through self-concept.

Keywords: hypothetical model, employability skills, learning system, learning environment, self-concept, vocational education.

The Development of Life Skills Program Within Vocational Education and Training Curriculum

(Soeryanto)

Soft Skill: A Solution For Graduates' Competitiveness Improvement Of Vocational Education In Global Era

(Ahmad Dardiri)

The Development of Entrepreneurship through Vocational Secondary High School

(Bambang SHP)

E-Learning Readiness of Vocatiional Secondary High School in Enhancing Global Workforce

(Muhamad Ali)

A HYPOTHETICAL MODEL FOR DEVELOPING EMPLOYABILITY SKILLS STUDENT

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Abstract

The emergence of various forms of high performance work systems in a knowledge-based environment inevitably has major implications for human resource and skill development. The higher education, especially higher vocational education, must respond the changes in industry and develop the workforce skills required by the new economy system. The need to improve and development the employability skills student has been an issue across all phases of education. This paper discussed issues for developing employability skills for higher vocational education students.

Employability skills can be viewed as an output of learning process and then gives affects to graduate employability. Employability is a process of learning that leads to individuals gaining and retaining fulfilling work. Employability development has three focuses: (1) development of employability attributes; (2) development of self-promotional and career management skills; and (3) willingness to learn and reflect on learning. Some authors express, several factors can impact on employability such as: pedagogic process, self-reflection by the student, articulation of experiences and abilities, understanding of knowledge, skilled practices, efficacy beliefs, and metacognition.

Based on the literature review, the developing employability skills student influenced by learning system and instructional

the assessment criteria and their corresponding weights. Based on the commonly agreed assessment criteria, students' learning outcomes are evaluated on a fuzzy sets. The proposed fuzzy grading system approach incorporates students' opinions into assessment and allows them to have a better understanding on the assessment criteria. It aims at encouraging students to participate in the whole learning process and providing an open and fair environment for assessment.

Keywords : Assessment, Soft Skill, Project Based Learning, Fuzzy Grading System

PRAXIS OF TEACHING AND LEARNING SOFT SKILLS OF HIGHER TEACHER EDUCATION LEVEL IN MALAYSIA

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ABSTRACT

Praxis of teaching and learning soft skills in the context of this essay is the process of putting theoretical knowledge into practice or of translating an idea into action. Even though there are autonomy in the design and delivery of programmes, the provision of higher education in Malaysia is regulated by the Malaysia Qualification Agency (MQA).

The MQA has specified seven soft or interpersonal skills that all graduates of institutions of higher learning in Malaysia must master which being considered as critical in generating holistic human capital to counter global competitiveness. The seven soft skills learning outcomes are Communication Skills, Critical Thinking and Problem Solving, Lifelong Learning and Information Management, Group Working Skills, Entrepreneurship Skills, Ethics and Professionalism, and Leadership Skills. At institutional level, the soft skills are spelled out as learning outcomes or Graduate Skills Attributes (GSA) through the adoption of Outcome Based Education (OBE) programme design as well as other curricular and co-curricular activities.

This paper highlights the praxis of transforming policy into the curriculum design process for execution and implementation at classroom level. The focus has been placed on fundamental aspects of how process being crafted for the technical teachers education programmers at the Faculty of Technical Education, Universiti Tun Hussein Onn Malaysia.

Key Words: soft skills, outcome-based education, praxis, model, learning outcomes.

A. Introduction

Malaysia is now at the mid-point in its journey towards Vision 2020 and is transforming to become a developed nation during the second phase of a fifteen year period. The Malaysia's New Economic Model launched in 2010 has vision of its future advocates the development of a human capital of highest quality. Everything we see in this world today has changed tremendously in terms of technological development, and most work needs to operate globally in order to survive the competition which exists in the world these days. This change has created an impact on the nature of work where a high level use of technology is a necessity to compete in the global arena. (Jailani et al, 2006). Hence, a more flexible workforce with advanced technical skills coupled with well developed generic skills such as creative thinking, problem solving and analytical skills, is greatly needed by the employer in industry in order to meet the challenges faced by business. The pressure on the providers of higher learning, including Technical and Vocational Education and Training (TVET) institutions is that they must constantly keep abreast with the needs of the future workforce at the industries and must be responsive to these changes (Ministry of Higher Education Malaysia,2006). The prime task is more to ensure that education and training is market driven and responsive to the changing needs of the various sectors of an economy. The model also broadly redefined the scope of education and training sector as primary a means of skilling more and more young workers, and of providing professional and in-

ASSESSMENT OF SOFT SKILL IN PROJECT-BASED LEARNING USING FUZZY GRADING SYSTEM

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Abstract

Contemporary Information Systems graduates will be more marketable in the workplace upon graduation if they have combined competencies in both technical and soft skills: interpersonal communication, teamwork, time management, planning and organizational skills.

Project-based learning can be used to incorporate soft skill competencies with technical skills. Project-based learning (PjBL) is one of the methods grounded in constructivism by supporting student engagement in problem-solving situations. Students in a project-based learning environment deal with real-life problems, which may result in permanent knowledge. Assessment is an integral part of PjBL. As teachers plan projects, they determine how to measure student learning-both along the way and at the project's end. Evaluations should focus on ongoing demonstrations of what students are learning and how well they can communicate it. However, it sometimes happens that the assessment criteria and their corresponding weights are solely determined by the lecturers in charge. This may reduce the interest of students' participation and lower the quality of their learning.

This paper presents an integrated fuzzy grading system approach to assess the outcomes of project based learning. It uses fuzzy sets principles to represent the imprecise concepts for subjective judgment and applies a fuzzy sets method to determine

ACQUIRING SOFT SKILL THROUGH E- LEARNING

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Abstract

This paper presents of the acquired of soft skills through e-learning. It discusses how importance soft skills through e-learning role in shaping an individual's personality. It is of high importance for every student to acquire adequate skills beyond academic or technical knowledge.

Today, corporations are increasingly relying on e-learning to improve the soft skills of their employees. Till a few years ago, soft skills training was offered only to the sales team as these skills were equated to training in communication and client interaction. But now it is a prerequisite to all categories of employees.

Soft skills are the non-technical skills, abilities and traits that one needs to function in a specific employment environment. They include four sets of workplace competencies: problem-solving and other cognitive skills; oral communication skills; personal qualities and work ethics; and interpersonal and teamwork skills.

Keywords : Soft skill, e –learning

service courses in life-long (re)learning; rather than about expanding the minds and developing the capacities of citizens (Hilgert and Leonard, 2000).

1. Soft Skills

From the employers' perspective, 'soft skills or employability skills' seems to refer to 'work readiness', that is, possession of the skills, knowledge, attitudes and commercial understanding that will enable new graduates to make productive contributions to organizational objectives soon after commencing employment (Mason, Williams & Cranmer, 2006). Employability skills are those basic skills necessary for getting, keeping, and doing well on a job (Maskell and Robinson, 2002). Soft skills are generic in nature rather than job specific and cut across all industries, businesses, job levels from the entry-level worker to the senior most position.

TVET graduates who are competent with certain skills may be able to secure employment without great difficulty. Such skills are well-known as soft skills. Hence, beginning from 2009, all proposed new programmes including professional programmes are required to fulfill the "Soft skills" elements including all aspects of soft skills that include the cognitive elements associated with non-academic skills. The government identified soft skills as the most critical skills in the current global job market especially in a fast moved era of technology (Ahmad,1998). The reorientation of education which is one trust of education for sustainability also relates the importance of these so-called soft skills. The seven soft skills learning outcomes are Communication skills, Critical thinking and problem solving, Lifelong learning and information management, Group working skills, Entrepreneurship skills), Ethics and professionalism, and Leadership skills.

2. Challenges on the incorporation of Soft Skills

Praxis as perspective and also the process of putting theoretical soft skills knowledge into practice is described a goal-directed action process that based on theory to solve challenges on how best to incorporate soft skills to achieve the desired outcomes. It has been increasingly important to assist graduates to function effectively in today's era of globalisation and the challenging world of work. Hence, according to Ahmad (1998), creating challenges to the government, providers and society at large, such as the following;

a. **Challenges from the Government's Perspective**
   - Holistic human capital that encompasses knowledge, skills and a positive attitude.
   - Highly skilled workforce to support k-Economy.
   - Career paths and employability for youths.
   - The need to compile comprehensive information on the national workforce market.

b. Challenges from the TVET Providers' Perspective
   - The need to combine theory and practical aspects in teaching.
   - The ability to create a learning environment that enables flexible and relevant self-study.

c. Challenges from the Society's Perception
   - Society's perception of students who join the skills stream as drop-outs and are consequently frowned upon.
   - The need to recognise skills training as part of the mainstream education.
   - Irresponsible training providers – misuse of government financial assistance through negligence of students.
   - The need for smart partnership to improve skills training.

Method, Indonesian language, English, Project Work and entrepreneurship, and Vocational Training. Learning strategy in school uses Contextual Teaching Learning with active learning, if the place of education in industry or teaching factory using learning by doing, followed by a performance evaluation test.

Keywords: soft skills education, vocational

SOFT SKILLS EDUCATION FOR PREPARING VOCATIONAL SECONDARY HIGH SCHOOL IN PRODUCING SKILLED GRADUATES

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Abstract

In this global era, the state requires a competitive workforce, adaptive and anticipatory, open to changes, capable of learning, skilled, easily retrained, as well as having broad and strong basic skills and be able to develop themselves. This paper discusses how to prepare graduates of Vocational Secondary School, which can be characterized as above through the effective and efficient education. Based on this research, a good workforce must have the soft skills (leadership, personality, and motivation). Models need to incorporate education in vocational hard skills and soft skills through three alternative options, namely: (1) Educational aspects of soft skills, basic vocational, and entrepreneurship conducted in schools, while the educational aspects of hard skills in the industry, (2) Educational aspects soft skills are implemented in schools, educational aspects of hard skills implemented when an apprentice in the industry, or (3) Education for all aspects of soft skills in schools, educational aspects of hard skills, basic vocational, and entrepreneurship teaching conducted at the factory. To accommodate these conditions, the vocational curriculum structure is made simple, with subjects: mandatory based on the National Curriculum, The Basics of Communication, Applied Mathematics, Computers, Scientific

B. Overview of TVET System in Malaysia

At present there are several ministries and agencies, as well as the private sectors involved in the provision of TVET in Malaysia. To ease the discussion of this paper, we classify it into five main sectors which are briefly outlined below;

a. General Education Sector.

Generally, the general education system is divided into pre-tertiary and tertiary education. There are two governing authorities for the education sector. Pre-tertiary education (i.e. from pre-school to secondary education and teacher education) is under the jurisdiction of the Ministry of Education (MOE) while tertiary or higher education is the responsibility of the Ministry of Higher Education (MOHE). Since March 2004, The Ministry of Higher Education (MOHE) was built to take charge of higher education which involves 20 public universities, 33 private universities and university colleges, 4 foreign university branch campuses, 22 polytechnics, 37 community colleges and about 500 private colleges.

The Malaysian Qualifications Agency (MQA) under the jurisdiction of MOHE, an agency that supervises and monitor the quality of public universities, polytechnics and community colleges. MQA integrates the quality assurance system for public higher learning institutions (i.e. Quality Assurance Agency under the Ministry of Higher Education) and private higher educational institutions (i.e. LAN) in Malaysia as well as training / skill-based providers.

The legal regulatory frameworks that support the provision of education in Malaysia are, Education Act, 1996, Private Higher Education Institutions Act, 1996, National Council on Higher Education Institution Act, 1996, and the Malaysian Qualifications Agency Act 2007, Universities and University Colleges

(Amendment) Act, 1996, National Higher Education Fund Corporation Act, 1997, MARA Institute of Technology (Amendment) Act 2000; and the National Higher Education Fund Corporation (Amendment) Act, 2000. The Education Act, 1996 covers pre-tertiary levels of education under the national education system which comprises pre-school, primary, and secondary education as well as post-secondary education. The other six acts regulate the provision of higher education in Malaysia.

b. Public and Private Training Sector

The public and private training system which caters mainly school leavers who do not take up pre-university and university studies. It excludes universities and university colleges but includes polytechnics and community colleges under the Ministry of Higher Education, vocational skills track streams in vocational schools under the Ministry of Education as well as training institutions under the Ministry of Human Resources, MARA Skills Institutes, and Youth Skills Colleges under the Ministry of Youth & Sports, and also agriculture institutes under the Ministry of Agriculture and Agro-based Industries.

c. The certification and qualification framework sector

Malaysian Skills Qualifications Framework is a five-tiered skills certification system based on the NOSS which was introduced by the National Vocational Training Council in 1993. National Skills Development Act 2006 forms the legislative basis of the National Dual Training System (NDTS) which mandated NOSS-based training system for the training system in country. The **National Occupational Skills Standards (NOSS)** reflect the actual requirements at the workplace, dynamic and incorporate the work processes. Its targeted outcome of training in the field of TVET, possesses soft skills and specific functional skills and "competencies" developed through DACUM processes.

date IT literacy the graduates will be much more effective in entering the job competitiveness and to improve the quality of the curriculum cores; matching to the needs of industries

Vocational education should also update continuously to an anticipation of progress and GLOBAL CHANGES that cannot be dammed; unless faced with the corrective measures without bringing vandalism/bad concerns.

Keywords: Vocation, workforce, demand driven, markets, competitive, communicative competence, global changes

THE RE-CONFIGURATION OF VOCATIONAL EDUCATION AND ITS PROSPECTS TO PROVIDE INNOVATIVE AND COMPETITIVE VOCATIONAL WORKFORCES

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Abstract

The purpose to effortlessly accelerate the development of vocational workforces with "soft skills" characterized in teaching factory which matches to demand driven in its dimension of entrepreneurship and to the mastery of communicative competence in complex communications **is** a logical consequence of globalizing relationships in many sites of human socio-economic needs. Supported with higher thinking and IT literacy, as well as purpose for the creation of work for the workforce of vocational graduates who should be more competitive and ready to work in industries, this implies comprehensive configuration of innovation and creativity in their efficient, effective, and productive habits. To cover this; reviews, observation on several vocational schools, and triangulation to the stakeholders were done.

This paper in its conclusions describes recommendations to the management of vocational schools to have short term, medium term, and long term reconfiguration, by opening the new trendy programs and developing the existed ones or closing the ineffective programs. The other recommendation is that it is also needed to add and polish the activities of teaching-learning with the adaptive ability to communicate in international language, character-building and up to

d. The company-based training sector

Company-based training which comes under the Human Resource Development Fund established in 1993 aimed to promote relation with private higher education is largely under the purview of the Private Higher Education Institutions Act 1996, and accredited by the National Accreditation Board.

e. The life long learning and professional development sector

This sectors which consist of continuing education and training caters to the demands of employers, community or society at large for further education, skills upgrading, retraining, career advancement and enrichment. For the public services sector, commencing 2009, workers are too fulfilled at least seven days or equivalent of attending professional staff development programmed each year.

C. Praxis of Inculcating Soft Skills At UTHM Level

With regard to the challenges, the objective of the higher education system is to produce professionals as demanded by the nation for human resources. Universiti Tun Hussein Onn Malaysia (UTHM) is one the 20 public universities governed by the Ministry of Higher Education (MOHE). The MOHE has incorporated this vision as one of its primary objectives under its Strategic Plan, in line with the national agenda to make Malaysia as a preferred centre to pursue higher education.

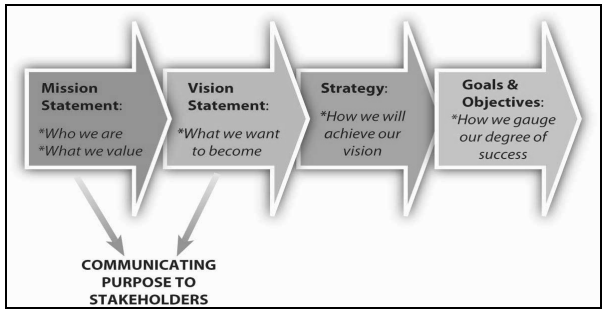
Hence all higher education programmes, including technical teachers' education programmes at the Faculty of Technical Education UTHM are evaluated and accredited by the quality assurance policy set by the Malaysia Qualification Agency (MQA) as directed by the Ministry of Higher Education (MOHE). At the same time, our programmes are also governed by Teachers Education Division Ministry of Education and Public Services Department (PSD). The programmes can be listed in the Malaysian Qualification Register (MQR); *Sistem Pengiktirafan Kelayakan*

(*http://www.interactive.jpa.gov.my/webinteraktif/frmMainIktiraf.asp*) , that can be assessed online only after it has been accredited by the MQA and recognized by PSD. The MQR is also the reference point for credit transfer between programmes and qualifications that are accredited.

a. Stepping Down From Philosophy To Implementation

The educational philosophy of UTHM stated *that "education and training in this* university *is a continuous effort to lead in the market oriented academic programmes. The programmes are student-focused and are conducted through experiential learning in order to produce well trained human resource and professionals who are catalysts for a sustainable development."*

This philosophy *is supported with a mission statement which states "To produce and train competitive professionals and technologists of high ethical values in the global arena through holistic academic programmes, knowledge and research culture, based on the concept of Tauhid."* This mission statement communicates the UTHM reason for being, and how it aims to serve its key stakeholders. This mission statement also includes a summation of the educational values as the beliefs of our university collectively, in which we are emotionally invested. These collective values were implemented throughout the system as indicated in Figure 1; Stepping Down of Mission to Programmes Objectives, as below;



mainly, in the availability aspects of teacher and facility might be an important consideration.

Keywords: Electronic Modul, Computer Aided Learning, Vocational High School

DEVELOPMENT OF A MODUL FOR COMPUTER AIDED CONTEXTUAL-CONTRUCTIVISTICS LEARNING IN THE SUBJECT OF MACHINING

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Abstract

This research is aiming at finding out a more appropriate learning model for students. The so called learning model is electronic modul aided contructivistics learning in the subject of Machining which is validated theoretically and empirically.

It was a development of a prior research that has successfully designed, built and validated a learning model using an Electronic Modul (interactive compact disc) and its equipment. This further research had been focused at application, wider scope model validation and its effectivity, as well. It was conducted by Research and Development approach. The data was analyzed descriptively.

The results showed that the electronic modul development needs some stages: introduction study, model formulation, validation, limited test, wider test, revision and final product formulation. Based on the data, it could be concluded that the electronic modul built had been satisfied both theoretically and empirically feasibility aspects. There were three learning implementation patterns using electronic modul, those were: 1. As a showing media, 2. As a support for practice, 3. As an individual and interactive learning media. Electronic or Computer Aided Learning could not always be implemented in the sampe pattern, however, characteristics of each SMK (Sekolah Menengah Kejuruan/Vocational High School),

Figure 1: Stepping Down of Mission to Programmes Objectives

In line with UTHM's vision and mission, UTHM has committed to produce technical graduates who are not only competent, creative and versatile professionals who are also guided by high moral and ethical values in the service of God and mankind, but they are also possessed with soft skills that will encounter or prepare them with employment markets and job seekers. Hence, in order to accept such challenges and competitions, UTHM needs to produce technical graduates who have a sound self disciplinary and professional knowledge, high self esteem and effective skills in communication, team working, problem solving and lifelong learning.

In accordance to the graduates skills attributes as outlined by the MoHE, UTHM has identified a range of attributes and soft skills which will enable our graduates to function effectively in a wide range of social and professional contexts. The development of such attributes will be embedded within the contexts of the students' discipline or professional field. In general, the communication skills, team working, problem solving, adaptability, lifelong learning, self esteem and ethics and integrity are amongst the attributes that need to be focused.

b. MQF Curriculum Structure

The main key feature of MQF curriculum structure is based on measurable learning outcomes. We belief that among the key features which may be used to judge if any system has implemented an outcomes-based education systems are:

- Creation of a curriculum framework that outlines specific, measurable outcomes. The standards included in the frameworks are usually chosen through the area's normal political process.
- A commitment not only to provide an opportunity of education, but to require learning outcomes for advancement.

Promotion to the next grade, a diploma, or other reward is granted upon achievement of the standards, while extra classes, repeating the year or other consequences entail upon those who do not meet the standards.

- Standards-based assessments that determines whether students have achieved the stated standard. Assessments may take *any* form, so long as the assessments actually measure whether the student knows the required information or can perform the required task.
- A commitment that all students of all groups will ultimately reach the same minimum standards. Training providers may not "give up" on unsuccessful students.

At the faculty level, we trained would be teachers to be sound facilitator and practice student-centred coach, with the primary responsibility to develop in the students a positive attitude to learning. He or she is the role model in the classroom and is instrumental in creating a positive and supportive learning environment within the class. The teacher must constantly be aware of the Program Educational Objectives or Outcomes (PEO), Programme Learning Outcomes (PLO) and Subject Learning Outcomes (SLO) are being met. Hence, all instruction and evaluation must reflect these objectives according to the prescription of the MQA.

c. Program Educational Objectives and Outcomes

In general, our Program Educational Objectives were initially established through;

- Review of the university's vision and mission statement,
- Evaluation of the desirable characteristics of our graduates,
- Drafting or revising the list of objectives, and review by the school board members.
- Survey to the industry and constituent groups to seek their views and comments regarding our PEOs. Constituent groups

Nevertheless, enriching a teacher's competencies in teaching strategies and other competencies that related to a workforce in the future is needed indeed through professional development activity.

Key words: teaching strategy, vocational education, professional development.

THE TEACHING STRATEGIES IN VOCATIONAL EDUCATION IN THE KNOWLEDGE ERA

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Abstract

This paper was arranged to describe the challenge of the teaching strategies in vocational education in the knowledge era. One of the era that will be meet in the twenty-first century is the knowledge era. In the knowledge era, knowledge is the engine of creativity and culture and defines our humanity, and also the main resource in any economic activity.

Sekolah Menengah Kejuruan (Vocational Secondary High School) that one of components of vocational education in Indonesia is faced to improve its quality education and to adapt to the changing in the knowledge era. Teaching strategies are one of the components in a schooling scope that should be considered an alternative solution to improve the education quality, and also to accommodate to a change of knowledge in the knowledge era.

The constructivism and social-constructivism learning approach, and the five elements of the strategic learning model: plugging in, powering up, synthesizing, outsourcing, and reflecting can be considered as part of the teaching strategies in implementing instructional in the knowledge era.

include our current students, alumni, and employers of our students and the parents.

Program Outcomes focus on those abilities that are measurable at the successful end of a student's academic program in Technical Education at the Universiti Tun Hussein Onn Malaysia. Performance Skills and Abilities are emphasized throughout the 4-year undergraduate program in order to prepare students to be successful engineers and to meet the School's Program Outcomes.

The philosophy and development of quality curriculum forms the basis of our technical teacher education programme. However, at the same time we realize that it is not an easy task to elaborate on our philosophy, unless through the use of framework that reflects on how the philosophy is put into practice could be demonstrated. Illustrated well in the Philosophy of Education for the Faculty of Technical Education UTHM, a programmed must reflect that it is learning that matters and we believe that experiential learning has more to offer than the conventional approach of lecture and tutorial. The overall process of curriculum development was nonetheless in place with the supporting mechanism of ISO 9001:2010 and complies with MQA standard criteria.

d. Process of Curriculum Development

In general, the development of soft skills using the embedded model requires the expertise of the lecturers to utilize the various teaching strategies and methods that are entirely student-cantered. It also involves active teaching and learning and students should participate actively in the activities. Some of the appropriate strategies and methods that are practical include (I) learning by questioning, (ii) cooperative learning, (iii) problem-based learning (PBL), (IV) e-learning.

Despite the freedom of choosing which methodologies to adopt, UTHM applies this framework in the curriculum development of its technical teachers undergraduate and post graduates programmes in

the faculty. Our experience tells that a programme in needs to have at least these criteria to be well accepted by the customers and stakeholders and in compliance with the MQF;

- Analysis of training and stakeholders' requirement.
- Alignment of Vision, Mission and Outcomes
- Flexible and focus.
- Dynamic and integrative curriculum
- Learners centered
- Assessment for learning
- Continual improvement
- Compliance to a standard

The curriculum development as practice in UTHM involves the round table discussion with the industrial key players and curriculum experts from different sectors in the area. Pertinent to this concept of the curriculum development, the rubric of monitoring and assessment development will be based on the identified occupational need of particular occupational field (Finch and Crunkilton, 1999). The specific competencies and requirements from particular jobs accumulated in the forms of criteria. Figure 2 Operational development framework as indicated below provides rough idea of the process of curriculum development at programme level.

VET CURRICULUM, TEACHING, AND LEARNING FOR FUTURE SKILLS REQUIREMENTS

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Abstract

VET curriculum, teaching and learning should be adaptive to the conditions and needs of the new world of work, anticipative the future skills requirements, needs of learners as the whole person for personal fulfilment and preparation for life. VET curriculum, teaching and learning should be pay attention to the trend of future world of work, globalization, localization, individualization to make people (self-) employable and to be a vehicle of transition for individuals to the world of work. VET leads to (self-) employment and income generation which is expected to contribute to the individuals' and their communities' well-being. VET implies the adoption of a holistic approach to skills development for employability and citizenship by placing emphasis within skills training programs on developing a basic skills, thinking skills, personal qualities, generic work skills, and specific skills to prepare the learner for self-reliance and responsible citizenship.

Keywords: VET, curriculum, teaching, learning, skill

required by the work force, (2) integrating the soft skills into the written as well as "hidden" curriculum, (3) deriving the soft skills from the curriculum and inserting them into the lesson plans to be carried out in the teaching-learning process, and (4) evaluating the implementation of the curriculum, particularly to assess students' achievement of the integrated soft skills.

Keywords: integration of soft skills, vocational high scholl curriculum

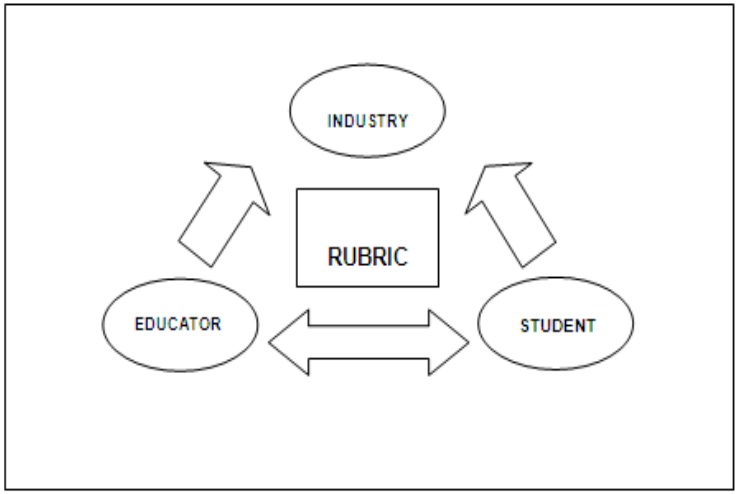

Figure 2: Operational development framework

(*Adapted from: Finch and Crunkilton, 1999; Huba and Freed, 2000; Savin- Baden, 2004)*

e. Concept of Effective Course Design

Effective course design depends on effective planning and design. Many problems that can occur once a course is in motion can be prevented by advance preparation and planning for students' learning. Figure 3 Effective Course Design, as below describe the relationship between the instruction, assessment and the course learning outcomes in the process of developing the programme curriculum.

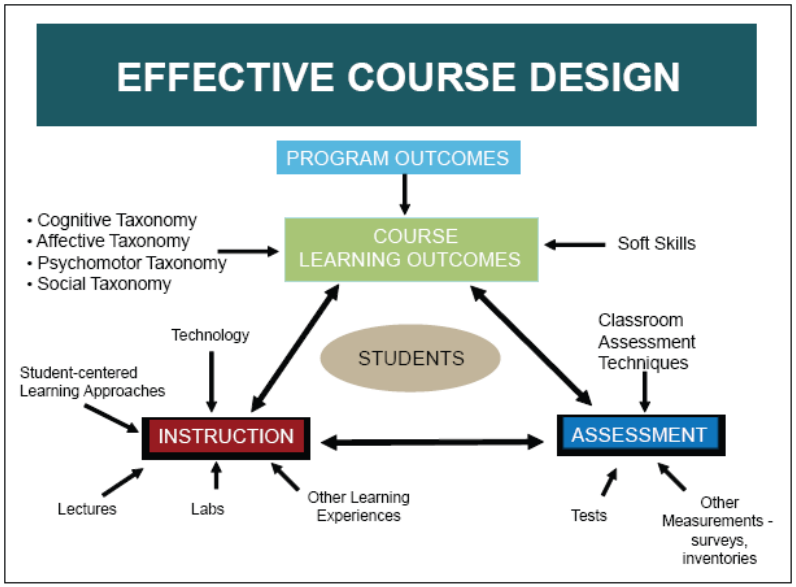

Figure 3: Effective Course Design

3.6. Design of Technical Teachers Programme

At the university level, the Malaysia Qualification Framework (MQF) requirements were explained to trainers at faculty and departmental unit levels before they are persuaded to implement the framework, which gradually increases in its popularity. We picture out the Curriculum Development Framework stepping down process

INTEGRATING SOFT SKILLS INTO VOCATIONAL HIGH SCHOOL CURRICULUM ON CIVIL ENGINEERING

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Abstract

The success of workers in the construction services sector is not only determined by the mastery of hard skills but also of soft skills. The needs for both types of skills among workers in the construction services have been formulated in the "SKKNI" civil engineering field as a key competence that must be possessed by a person to achieve the performance required in construction services. Due to the relationship between the demand-supply of vocational high schools (VHS) and construction industry, it is necessary to adjust the knowledge and skills taught at VHS to the knowledge and skills needed by the work force.

It is a reality that vocational education at VHS is primarily oriented toward the hard skills; in fact we can say that it is oriented toward the hard skills only, neglecting the necessity of the soft skills. Referring to the soft skills requirement analysis in the work force and to the survey results on construction services indicating that the success of workers is also determined by their soft skills, it is therefore necessary to integrate the soft skills into the VHS curriculum, particularly in the field of civil engineering.

Developing a curriculum which includes soft skills integration can take the following steps: (1) identifying the soft skills

technique capacity (hard skills) without any support from the soft skills in accordance with the work requirements might be meaningless for a successful job.

Keywords: soft skills; Vocational High School program of dressmaking specialty; garment industry.

that characterizes the cyclical process of design, deliver and assess, to make the MQF easier to follow, as indicated in Figure 4 Conceptual Framework of Curriculum Development, below;

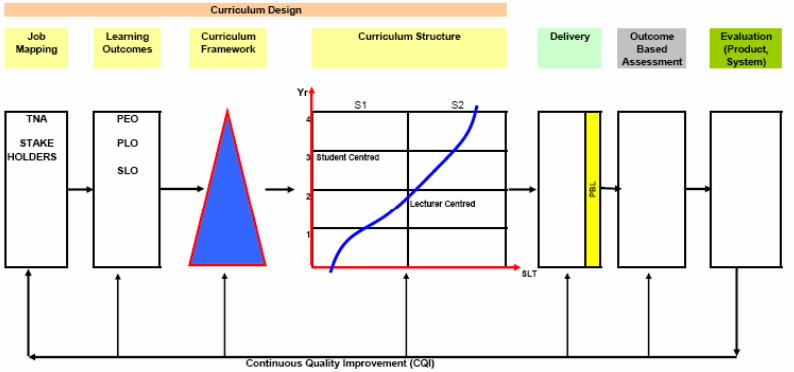

Figure 4: Conceptual Framework of Curriculum Development

Source: Jailani Md Yunos, W.Mohd. Rashid W. Ahmad, Noraini Kaprawi, Wahid Razzaly (2006). Master in TVET: Malaysian Experience. "Innovation and Internationalisation in the Qualification of Technical and Vocational Education and Training (TVET) Experts": 22-26 November 2006, Colombo, Sri Lanka.

As the example shown in **Figure 4 Conceptual Framework of Curriculum Development**, as, the Programme Education Outcome, Programme Learning Outcome and Subject Learning Outcome of the programme are well connected to achieve the outcome. The main component of the programme is as follows.

- Outcome based Program
- Curriculum and Course Subjects Structure
- Matrix Learning Outcome
- Synopsis

D. Learning Outcomes: Graduate Students Attributes (Gsa)

In the National Higher Education Strategic Plan, MOHE had drawn strategic **objectives** for Teaching and Learning to ensure that the additional attributes acquired by the students were according to GSA. In fact, the soft skills or GSA is so important that the Minister of Higher Education had specifically addressed and continued to place it as a focused agenda in his 2010 Early Year Mandates to the Ministry.

Graduate Students Attributes (GSA) comprises of qualities, skills, and abilities that are valued in study, social situations and employment. The GSA first defined by the National Higher Education Research Institute (2003) of the MOHE before being adapted by UTHM are the Seven Attributes of UTHM Graduates, as the following:

1. Communication Skills

Communication skills incorporate the ability to communicate effectively in Bahasa Melayu and English across a range of contexts and audiences.

- CS1 Ability to present ideas clearly, effectively and confidently through written and oral modes.
- CS2 Ability to listen actively and respond accordingly.
- CS3 Ability to make clear and confident presentation appropriate to audience.
- CS4 Ability to use technology in presentation.
- CS5 Ability to negotiate and reach agreement.
- CS6 Ability to communicate with people of different culture.

2. Critical Thinking And Problem Solving Skills

Critical thinking and problem solving incorporate the ability to think critically, logically, creatively and analytically.

INTEGRATION OF SOFT-SKILLS IN THE PRACTICAL LEARNING FOR THE INDUSTRY-RELATED JOB READINESS

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Abstract

This paper constitutes part of quality improvement of the Vocational High School (SMK) graduates for their work preparedness in accordance with the requirements of the employment markets in industry field. The survey, through observations, questionnaires and interviews of the practitioners (HRD) and the supervisors of the Central Java-based garment industries, showed that their responsiveness to the soft skills of the Vocational High School-dressmaking graduates was categorized low, while the demand for the soft skills was categorized highly expected, there was thus a gap between the soft skills of the vocational school graduates (dressmaking) and the workforce demand (garment industry). One of the causes of the gap was the learning process that poorly equipped the students with the soft skills. For this reason, it is important to revise the learning approach by the integration of the soft skills into the practical learning that makes the students being able to understand the meaning inherent in the subjects they study by relating them to the context of the real and authentic work force. Moreover, the teachers' high commitment is needed as one of the main components in the learning process for the improvement of the work system insight in industry and for the learning guidance in preparing the students for working, since the competent and skilful-

Obviously, some workplaces require all of those personal characters, but others may only need some. Those personal characters (heart set) should be prepared by vocational education and training institutions because we all realize that the heart of education is the education of the heart. However, a lot of vocational education and training institutions still disregard character education. It is the time for vocational education and training institutions to prepare workforces with good characters required by the workplaces, both for wage employment and for small and medium enterprises (SME). At the present time, SME is ill-prepared and therefore, there is an urgent need to introduce new philosophy and practices in educating future workforces. Because the future is still uncertain and the pace of change becomes faster and faster, there is an urgent need to prepare workforces with strong basic and adaptable skills as well as good personal characters.

Keywords: personal character, workplace

- CTPS1 Ability to define and analyze problems in complex, overlapping, ill-defined domains and make well-supported judgment.
- CTPS2 Ability to apply and improve on thinking skills, especially skills in reasoning, analyzing and evaluating.
- CTPS3 Ability to look for alternative ideas and solutions.
- CTPS4 Ability to 'think outside the box'.
- CTPS5 Ability to understand and adapt to the culture of a new community and working environment.

3. Teamworking Skils

Team working incorporates the ability to work with other people with different background to achieve a common goal.

- TW1 Ability to establish good rapport, interact with others and work effectively with them to meet common objectives.
- TW2 Ability to comprehend and assume the interchangeable role of leaders and followers.
- TW3 Ability to recognize and respect the attitudes, actions and beliefs of others.

4. Information Management And Lifelong Learning Skills

Information management and lifelong learning incorporate the ability to continue learning independently in the acquisition of new knowledge and skills.

- LL1 Ability to seek and manage relevant information from a variety of sources.
- LL2 Ability to accept new ideas and to learn independently in the acquisition of new knowledge and skills.
- LL3 Ability to develop an inquisitive mind driven by a passion for knowledge acquisition.

5. Entrepreneurship Skills

Entrepreneurship incorporates the ability to analyze situations and recognize opportunities to use one's knowledge and skills for business opportunities.

- ES1 Ability to identify business opportunities.

6. Leadership Skills And Proactiveness

Leadership and proactiveness incorporate knowledge of the basic principles of leadership and application of the traits of leadership in one's interaction with others.

- LS1 Ability to demonstrate basic knowledge of leadership.
- LS2 Ability to take action and to get others engaged

7. Ethics And Integrity

Ethics incorporates the ability to apply high ethical standards in professional practice and social interactions.

- ET1 Ability to act ethically and with a high sense of social responsibility.
- ET2 Ability to analyze and make ethical decisions when solving problems.
- ET3 Ability to understand the economic, environmental and socio-cultural impacts of professional practice.

The first two elements have always been a focus in any curriculum and students' achievement in these areas can easily be assessed by means of tests, lab reports and assignments. However, the other seven requirements are a "major concern" because the teaching of these skills is integrated into the curriculum without particular emphasis, and it can be difficult to determine whether they are acquired or developed.

PERSONAL CHARACTERS REQUIRED BY THE WORKPLACES

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Abstract

There is a recognition in most of the nations (may be all) that sustainable development of a nation rests upon the development of education of its people. Education is supposed to prepare children to be well-rounded people, including preparing for work. Considering globalization, a nation should be careful in selecting knowledge to be taught for its respective children so that they are suitable with the characteristics or identities of a respective nation-state, including the knowledge required by the workplaces.

A well-educated workforce is the condition-sine-qua-non for successful workplaces. Current and future workplaces require smart and good people e.g. the ones who posses workplace know-how, smart mind, good heart (character), healthy physics, and consequently good behaviors. At the present time and even in the future, personal characters are paramount concerns for the workplaces. The followings are examples of personal characters required by workplaces: works ethics, self-discipline, honesty, commitment, responsibility, respects for self and others, tolerance, hardworking, interrelationship/sociability, work motivation, courage, diligence, integrity, adaptability, self-control, faster learner, flexibility, and entrepreneurship.

School Of Civil Engineering USM Malaysia (2010). What is Outcome Base Education [OBE] retrieved from website: http://civil.eng.usm.my/undergrad/ CIVIL%20USM%20WEB-OBE.pdf

Spady, W. G. (1990). High success programme on Outcome-Based Education. Outcome based education video library. Greeley, Colombia: National Center for Peak Performing Schools.

E. Model For Implementing Soft Skills In Higher Education

Salih (2007) proposed that the Malaysian approach of infusing soft skills a holistic approach. A holistic approach is used to plan and implement the soft skills among students of higher education. This approach is based on the combination of several programs and main activities; formal teaching and learning activities (include all curricular and co-curricular elements); support programs (academic and non-academic focused) and the students' campus life (students' residences and the campus surroundings). Hence technical teachers' preparation programmes at the Faculty of Technical Education UTHM adopt an integrated five-pronged approach (refer Figure 5) to developing soft skills of among the teachers via:

1. the teaching-learning process through the embedded model
2. the teaching-learning process through the stand-alone model
3. the English Language Support Programme (ESLP)
4. the UTHM Degree ++ programme
5. the students' campus life

Figure 5 shows the framework for implementing soft skills among students of higher institutions in Malaysia (Ministry of Higher Education Malaysia, 2005). In general, the development of soft skills among the students via the formal teaching and learning activities takes two models: (i) stand alone and (ii) embedded.

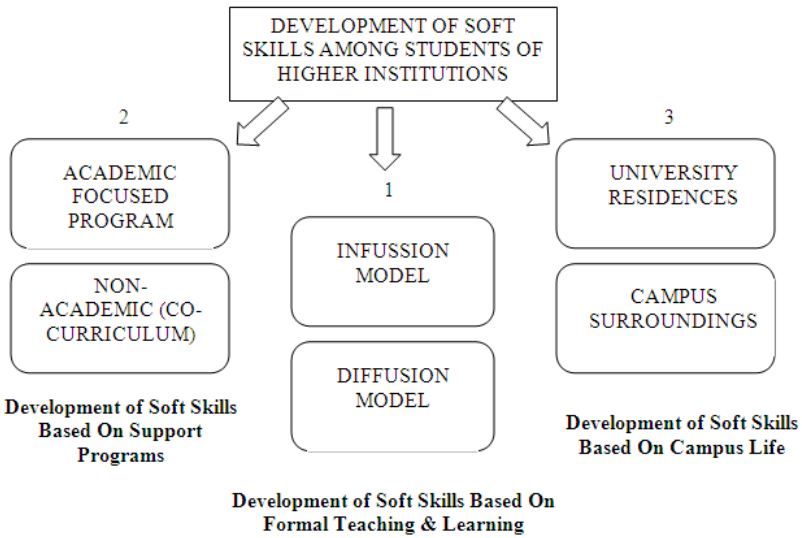

Figure 5: Framework for Implementing Soft Skills

From our opinion, soft skills could be developed in the teaching learning process through two models –the embedded or infusion model and the standalone or diffusion model. In the embedded or infusion model, soft skills are integrated into the content subject and these skills become an integral part of the teaching-learning objectives. This approach is also known the "curriculum integrated approach" (Bennett, Dunne and Carre, 2000) since the development of soft skills is integrated into the curriculum.

1. Infusion or Embedded Model

In the embedded or infusion model, soft skills are integrated into the content subject and these skills become an integral part of the teaching-learning objectives. This approach is also known the "curriculum integrated approach" (Bennett, Dunne and Carre, 2000) since the development of soft skills is integrated into the curriculum.

D.C.: World Bank. Website: http://proxy.lib.uiowa.edu/login?url=http://www.worldbank.icebox.ingenta.com/content/wb/bk17778.

Jailani Md Yunos, W.Mohd. Rashid W. Ahmad, Noraini Kaprawi, Wahid Razzaly (2006). Master in TVET: Malaysian experience. "innovation and internationalisation in the qualification of Technical and Vocational Education and Training (TVET) Experts": 22-26 November 2006, Colombo, Sri Lanka.

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Hsuan, Y. G., & Koerner, R. M. (1993). MQC/MQA and CQC/CQA of geosynthetics: papers presented at the MQC/MQA and CQC/CQA of geosynthetics seminar, held December 10-12, 1992, Philadelphia, Pennsylvania, [at GRI 6th Annual Conference]. St. Paul, Minn: Industrial Fabrics Association International.

Huba, M.E. and Freed, J.E. (2000). Learner-centered assessment on college campuses: shifting the focus from teaching to learning. Allyn & Bacon.

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The curriculum-integrated approach would enable students to develop soft skills within the context of their discipline.

In this model, the concepts of soft skills are injected into the various conventional disciplines and subjects without introducing new subjects such as in the example of thinking education in Fig 6.

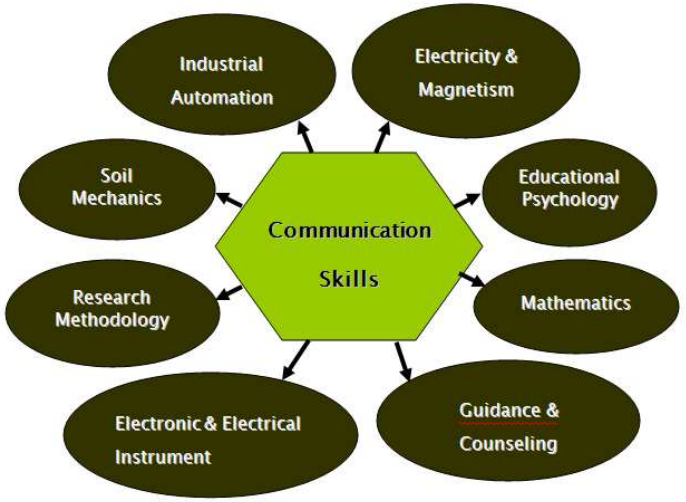

Figure 6: Infusion Model in Curriculum on Thinking Skills

The main issues with this approach are that soft skills cut across the range of subjects and are to be integrated into all of the subjects. Integration of soft skills in the subject area is generally difficult to design and implement. It means therefore that teachers of different subject areas and from different levels must be in regular dialogue with each other to validate and confirm whether or not the soft skills are still attuned with the times and disciplines.

However, in the opinion of the author the best way to integrate generic skills in the TVET curriculum is by combining the both the model through Hybrid approaches. We need to offer both the separate discipline on generic skills as well as the integration of the same in different subject contents depending on the requirement of the TVET curriculum.

2. Diffusion Model or Stand Alone Development Model

The diffusion model is also known as "stand-alone development model" (Bennett, Dunne and Carre, 2000) since soft skills are developed independently of the content subjects (see Figure 7). The underlying literacy assumption in this model is that using soft skills for purposes outside the classroom enhances motivation and learning. The underlying theoretical assumption is that change is promoted through ideas or information introduced by people with whom we can identify. This model uses the approach of training and providing opportunities for students to develop soft skills through specific courses that are carefully planned for this purpose. Usually, these subjects are offered as university courses (such as English language, Islamic civilization, entrepreneurship, etc) and elective courses (such as public speaking, critical thinking, etc). The courses in this category are often a part of the overall requirements that make up the program. The number of courses and credits in this category depends on the curriculum design and the requirements of the program. The stand alone subject model can also be initiated by encouraging students to sign-up several additional courses which can be accumulated to be a minor course which is different from the initial program signed-up. For example, a student who is pursuing a Bachelor in Technical Education program is encouraged to elective courses in Industrial Workshop Skills Programmes or Entrepreneurships. However, such an approach will require an increase in the number of credits and time spent for the particular program.

- Social Skills and Responsibility
- Ethics and Professionalism
- Critical Thinking and Problem Solving
- Communication Skills and Team Work
- Information Management and Lifelong Learning
- Entrepreneurship and Management

G. CONCLUSION

The process of transforming concept into practice in the OBE reforms emphasizes setting clear standards for observable, measurable outcomes. After developing the education philosophy, we specify the expected outcomes or program learning outcomes (PLO) for the existing program followed by specifying the contribution of each subject in the curriculum to the overall learning outcomes i.e. the subject learning outcomes (SLO). The staffs are also exposed to innovative delivery techniques to satisfy PBL and PLO/SLO. At this stage the expected Students Learning Time (SLT) 2 is indicated as part of curriculum delivery plan or teaching plan. The move was further strengthened by the move by a number of workshops and seminars organised by the MQA, Ministry of Higher Education (MoHE) and other Institutions.

With respect to soft skills, we belief our education system must continue to be re-evaluated and improved to create the workforce of the future, with a commitment to merit-based programmes. These will reward excellence and nurture talented graduates who excel in strategic and creative thinking, and entrepreneurial and leadership skills that will drive success in the decades ahead.

PLO 3	Graduates have the ability to identify and solve problems in TVET and related fields.
PLO 4	Graduates have ability to design teaching and learning systems, components or processes to meet the needs and demands of the TVET profession and related fields.
PLO 5	Graduates have the ability to function effectively both as individuals and in a group in the capacity of a leader or a team member in TVET and related fields.
PLO 6	Graduates have the ability to consider social, economic, technological, and environmental aspects to solve TVET and related fields problems professionally and ethically.
PLO 7	Graduates have the ability to communicate effectively in conveying and disseminating knowledge in TVET and related fields.
PLO 8	Graduates have the ability to use the techniques, skills and appropriate technical methods and tools necessary for sustainable development in TVET and related fields.
PLO 9	Graduates will demonstrate an awareness of the need to stay abreast with the latest knowledge and understand contemporary issues in TVET and related fields.
PLO 10	Graduates have the potential to continue the professional development and advancement through life-long learning in TVET and related fields.
PLO 11	Graduate possesses sufficient management skills to stay competitive in the global market in TVET and related fields.

Vast research and expert opinions have been sought in the effort to determine the specific soft skills to be implemented and used in higher institutions of learning. Based on the research findings obtained, eight soft skills have been identified and chosen to be implemented in all institutions of higher learning here. They are:

- Knowledge
- Practical Skills

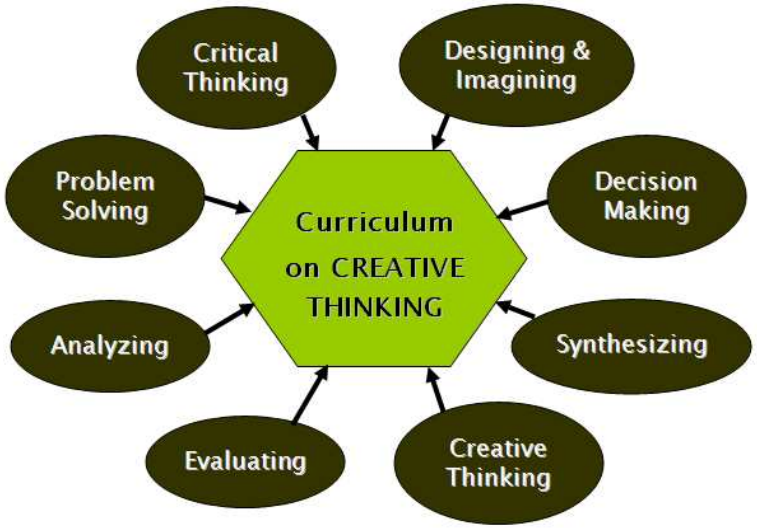

Figure 7: Diffusion Model in Curriculum on Thinking Skills

3. Pedagogical Challenges for Learning System

Shift in Pedagogical Dimensions, as indicated in Table1 suggest that there should be a paradigm shift in educational practice of teaching and learning in knowledge society. The author argues that where learning through facts, drill and practices, rules and procedures was more adaptive in earlier days, now learning through projects and problems, inquiry and design, discovery and invention, creativity and diversity, action and reflection is more fitting for the present times. This necessitates the development of a conceptual framework on the pedagogical shift in the dimensions of teaching and learning system in the knowledge society. The suggested shift required in each of the pedagogical dimensions is contained in the table below as an

effective approach to build up 21st century skills and competencies embracing systemic process and content-rich teaching and learning methodologies.

Table 1 : Shift in Pedagogical Dimensions

Dimensions	Undesirable	Desirable
Pedagogical Base	Instructive	Constructive
Learning Focus	Content	Learning to Learn
Learning Strategies	Interactive	Collaborative & Interactive
Learning Goal	External Controlled	Autonomous
Learning Theory	Behavioural	Cognitive
Teacher Role	Didactic	Facilitative
Delivery Modes	Fixed	Open
Learning Approaches	Surface	Deep
Learning Structures	Rigid	Flexible/ Modular
Instructional Models	Instructor Centered	Learning Team Centered
Learning Objectives	Information Transfer	Mental Model Change
Learning Methods	Passive	Active

APPENDIX 1: Example Of Soft Skills Matrix.

A vision or mission unifies efforts and build alignment and loyalty among employees. Vision is a desired future and helps to guide people and thus develop a shared image of future. Therefore, we can see that PEO and PO play an important role in shaping our graduates' future. It also motivates and inspires our students to have a higher goal to achieve in the future.

Table 4 : PLO versus PEO

	PEO 1	PEO 2	PEO 3	PEO 4	Skill
PLO 1	x				**TS**
PLO 2	x				**TS,IM**
PLO 3	x	x			**TS**
PLO 4		x		x	**CT,PS**
PLO 5			x		**EM**
PLO 6			x	x	**CS**
PLO 7		x	x		**TW,LS**
PLO 8				x	**LLL, Ent**

e. Program Outcomes Of The Faculty Of Technical Education

PLO 1	Graduates have the proficiency in and the ability to apply the principles of technical knowledge, Mathematics and science in the analysis of TVET and related fields.
PLO 2	Graduates have the ability to acquire in-depth technical competence in TVET and related fields.

Programme Objectives (PO) are the guidelines designed by Faculty of Technical Education UTHM in order to fulfil the attributes students need to achieve upon graduation. (Refer Table 4) It acts as a vision- a guiding principle and mission which directly align with vision statement in determining how the vision is to be fulfilled. The vision becomes the guiding light for the member of one organization to understand what the organization all about, and to what ultimate principle they shall hold unto and working toward. Example of program outcomes matrix **for** integrating Soft Skills are shown in

4. Development of soft skills through support programs

This involves programs and activities that are created, developed and used to support soft skills either directly or indirectly. In general, the program and activity can be divided into two: (i) academic support program and (ii) non-academic support program. The academic support program is to help students acquire the soft skills that are associated with academic matters. Some of these programs include 'Learning Skills' and 'English Language Support Program (ELSP). As for the non-academic support program, it assists students to acquire the soft skills that are not related to academic matters but more of personality and professional development of the students. Most of the programs and activities are in the form of co-curriculum and extra co-curriculum.

5. The development of soft skills through Campus Life Activities.

Most of the university students spend half of their students' life living in residences in the university campus. As such, institutions of higher learning should use this golden opportunity to develop their soft skills. This can be done through carefully crafted programs and carrying them out in the conducive campus grounds.

6. Outcome Base Education Approach

Indeed attempts to incorporate soft skills among students are actually neither new nor rare. Many TVET staff has consciously or subconsciously applied or incorporated soft skills in their teaching and learning approaches. Even at the primary and secondary school levels, these skills are integrated into the teaching-learning materials and classroom activities (Ashton, 1994). Therefore, it is important that planned efforts should be made to ensure that the application of soft skills among undergraduate students in the higher learning institutions can be continued.

In 2006, UTHM has made a decision to adopt the Outcome-Based Education (OBE) approach in the curriculum design and

teaching in the classroom. OBE has been the accepted approach in Technical Education, and its effectiveness in ensuring the success of outcomes of the academic programme is viewed as a solution to other programmes. Thus, UTHM became among the first Malaysian university to adopt OBE for all academic programmes. This is in line with MOHE's introduction of the Learning Outcome and Soft Skills mapping into the documentation of new and review of university academic programmes in 2006. It promotes extensive engagement of soft skills in academic curriculum in all universities.

In UTHM OBE is simply referred to as learning outcomes (LO) Kemahiran Insaniah, which is the foundation of OBE. The soft skills (Kemahiran Insaniah – KI) are embedded in the

curriculum as warranted by the Ministry of Higher Education (MOHE) and as part of our continuous efforts to ensure successful graduates who can adapt to any economic situations and seek for by employers. The MOHE's learning outcomes is the base of our programme's outcome (PO). To ensure that the PO is achieved, each course that makes up the programme must contribute to the achievement of the PO. It was the decision of the curriculum planners that specified learning outcomes of each course (course LO) comprise of three specific domains; cognitive, psychomotor and affective. On top of that, between one to three KIs must be embedded in each course.

To ensure that the specific course LOs and the POs are achieved, appropriate teaching approach must be used in the conduct of classes. Gone were the days of lecturers manipulating the whole lecture time, standing at the rostrum, and delivering what seems to be a structured content of the topic. Universities world-wide are moving towards student-centered learning (SCL), where the learning sessions are planned to allow students to be active players in the classroom towards a more meaningful learning.

To ensure that the course designed is able to produce the desired outputs, there must be congruency between the design, implementation and assessment. The assessment is the tool to gain feedback on the LOs that are achieved, and that the students have

completion of semester]	
18. Question with Answer Scheme	
19. Student's Attendance	Teaching Staff
20. List of student passing coursework	
21. Warning letters	
22. Other Document	
23. Analysis of Examination	Teaching Staff/Course Manager
24. Examination performance statistics for each questions	
25. Comments on performance	
26. Suggestions from Exam Board	
27. Post Mortem of Course	

d. **Program Outcomes Matrix : Integrating Soft Skills**

The program outcome assessment matrix provides a concise summary of how the program outcomes are assessed and the courses to be concentrated when attempting to raise the attainment level of a particular outcome. Programme Educational Outcomes (PEO) and

Experiment/Field Work/Design/Etc.	
7. Assessment method [Rubrics or Others]	
8. Soft Skill Development-Informal/Formal Cooperative Learning or Problem-based	
9. List of Students	Teaching Staff
10. Course Lecture notes	Teaching Staff
11. Course Work Documentation	Teaching Staff
12. Assignments with solutions [Lab Reports, Term Papers etc.]	
13. Quiz and Test with solutions	
14. Course work marks	
15. Individual/group evaluation method [Rubrics or Others]	
16. Other Evidence [Digital Photos, VCD, etc.]	
17. Examination Question [after	Teaching Staff/Course Manager

gained competencies in the specified KIs. The following diagram illustrates the contributing elements in an effective course design.

In April 2007, a workshop for all academic staff was organized for incorporating soft skills in the teaching and learning of teachers training course subjects at the faculty level. In this workshop, the above mentioned attributes were addressed, conveyed, shared and discussed with the academic staff whereby the process of incorporation of such skills must follow through three main stages, namely, the planning stage, implementation stage and assessment stage of soft skills.

F. OUTCOME-BASED EDUCATION IN TECHNICAL TECHER EDUCATION

Since 2007, Outcome-based Education (OBE) is the essential requirement for our higher education system when Malaysia became a fully signatory member of a multinational agreement for the mutual recognition of technical degrees, i.e. The Washington Accord (WA). This is an endorsement that our education system must demonstrate the strong, long-term commitment to quality assurance in producing professionals ready for industry practice in the international scene. OBE involves students in a complete course of learning, developing their skills in designing to completing a whole process (Spady, 1994a, 1995). OBE also identifies higher levels of thinking (e.g. creativity, ability to analyze and synthesize information, ability to plan and organize tasks). Such skills are emphasized especially when students are assigned to organize and work as a community or entrepreneurial service teams to propose solutions to problems and market their solutions.

a. 6.1.1 Graduate Skills Attributes (GSA)

Graduate Skills Attributes (GSA) assessment is very important to UTHM. It is not merely conducted to accommodate to MOHE's

directives or to fulfill the requirements of the Academic Performance Audit (APA), but more so, it provides a significant reality check on our core business, that is teaching and learning. The curriculum was designed to achieve specific goals which include preparing students for "rest of their life" and the GSA assessments will provide the feedback on what is lacking, what still needs to be improved on, and what effective intervention can be planned by the course instructor, advisors and faculties to enhance students' GSA.

b. The Program Delivery

The Teachers Education Programme of the Bachelor in Vocational Education (Instructional and Technology Design) at the faculty requires an official recognition by the MQA, PSD and the TED Ministry of Education, are to be review every four years (refer to Table 2)

Table 2 : Different Levels of OBE

Teachers Perspective	Students Perspective	Scope
Program Educational Objectives [PEO]	Student Learning Outcomes (SLO)	Few years after graduation
Sub-Programme Objectives [SPO]	Programme Outcomes [PO]	Upon graduation
Course Or Subject Objectives [CO]	Course Or Subject Learning Outcomes [CLO]	Upon subject completion
Weekly Or Topic Objectives	Weekly Or Topic Outcomes	Upon weekly / topic completion

c. Teaching And Learning Process In OBE

As had been presented in the International Colloquium on Private Education (2008), the MQA Code of Practice or Good Practices, the quality assurance process in teaching and learning delivery is built on the following attributes:

1. encourages a variety of teaching and learning methods
2. ensures the choice of credible student assessment methods appropriate for the teaching and learning methods chosen;
3. ensures there are adequate resources to deliver the curriculum;
4. concerned with good outcomes rather than detailed specifications of content.

Pollock and Ford (2009) stated that the instrument that develops and classifies qualifications based on a set of criteria that are approved nationally and benchmarked against international best practices, and also clarifies the earned academic levels, learning outcomes of study areas and credit system based on student academic load (Student Learning Time, SLT). Therefore, to ensure that faculty members appreciate and deliver the requirement of the OBE system, the faculty developed a Standard Operating Procedure (SOP). It has been established as depicted in Table 3.

Table 3 : Standard Operation Procedure (SOP)

DOCUMENT	RESPONSIBILITY
1. Course Outline	Course Manager
2. OBE Course Outcomes	Course Manager /Program Chairman
3. Teaching Plan	Teaching Staff
4. List of Weekly Teaching Topics with Outcomes	
5. Teaching and Evaluation method	
6. List of	