



Learning outcomes for this presentation

By the end of the presentation, participants should be able to:

(1) Describe orally and convince about OBE to your colleagues at least in half an hour.



Presentation Outcomes

- 1. Why OBE?
- 2. What is OBE?
- 3. When, Who and How OBE?

UNIVERSITI TEKNOLOGI MALAYSIA Malaysia's Premier University in Engineering and Technology

www.utm.my

Current issues

- Democratisation of educations
 - increase in the number of HEI's (public and private)
 - wide array of qualifications awarded
 - diverse in arrangements and nomenclature.
 - bewildering educational pathways
 - public sector training institutions of the various ministries and the industry-based skills providers

COVERAGE OF MQA

Public Universities & College Universities (BJK)	18 + 3	
Private Universities & College Universities(LAN)	22	
Branch Campus of Foreign Universities (LAN)	4	
Private Colleges(LAN)	532	
Polytechnics	20	
Community Colleges	34	558
TOTAL	630 + 3	

PROGRAMMES & QUALIFICATIONS AWARDED BY AGENCIES OTHER THAN THE MINISTRY OF HIGHER EDUCATION (>1000)

>1000

(E.G SKILLS DEVELOPMENT ACT, AKADEMI SENI ACT, **EDUCATION ACT**



Current issues

- Public confidence in academic standards
 - Public understanding on the qualifications- their expectations
 - The usage of qualification titles lack of nationally agreed criteria in nomenclature – inconsistency eg the term Master
 - Facilitating students and graduate mobility
 - Inconsistency in defining academic load (credits)
 - Recognition of work place training RPL



Current issues

- International context
 - Restructuring HE programmes and qualifications to make it clearer and to promote lifelong learning
 - Council of Europe Convention on the Recognition of Qualifications in European regions - QF EHEA, UK QF, AQF, NZ QF
 - Establishment of European credit transfer system (ECTS).

UNIVERSITI TEKNOLOGI MALAYSIA Malaysia's Premier University in Engineering and Technology

7



Current issues

- Realising the concept of life long learning
 - Learning pathways that are appropriate for them
 - Flexible learning
 - Recognition of prior learning

UNIVERSITI TEKNOLOGI MALAYSIA Malaysia's Premier University in Engineering and Technology



Issue no. 2

View from industries about our students

UNIVERSITI TEKNOLOGI MALAYSIA

Malaysia's Premier University in Engineering and Technology

80,000 gradua mingguan nengang malaysia

Oleh NIZAM YATIM

JELI 19 Feb. - Jumlah perangka-JELI 19 Feb. – Jumlah perangka-an graduan menganggur amat mengejutkan apabila sehingga September lalu angkanya men-cecah 80,000 orang. Sehubungan dengan itu Men-teri di Jabatan Perdana Menteri, Datuk Mustapa Mohamed meng-ariskan antara faktor perkang-

gariskan antara faktor perkara itu berlaku:
• Graduan enggan mengubah

- Graduan enggan mengubah sikap yang inginkan peker-jaan setaraf dengan ijazah yang dimiliki. Sikap graduan yang gemar berkhidmat dengan keraja-an kerana mereka tidak ya-kin untuk bekerja dengan syarikat swasta. Tidak suka berusaha sendi-ri, termasuk berniaga dan berdikari.

Katanya, nasihat kerajaan su-paya graduan terbabit mengubah sikap masih tidak diikuti dan ia

terbukti apabila ramai di kalangan mereka enggan bekerja se-bagai kerani atau operator pe-ngeluaran di kilang dengan ala-

san tidak sesuai. "Kepada graduan terbabit yang kebanyakan daripada kalangan bumiputera, saya nasihatkan ti-dak usahlah mereka terlalu memilih pekerjaan dan sebagai per-mulaan kita boleh kerja di manamana bagi mencari pengalaman," katanya.

katanya.
Beliau berkata demikian ke-pada pemberita selepas meraikan 24 pelajar yang dipilih mengikuti Skim Anak Angkat Parlimen Jeli di kediamannya, Darul Falah di sini, hari ini.

Kata Mustapa, Unit Perancang Ekonomi (EPU) sedang merangka strategi mengenai langkah-lang-kah yang boleh dilaksanakan bagi memastikan bilangan graduan menganggur dapat dikurangkan. "Strategi ini akan diumumkan

selepas EPU selesai menyemak laporan daripada universiti-uni-versiti mengenai latar belakang graduan menganggur dan bidang pengajian masing-masing untuk tempoh tiga tahun sejak 2002," jelasnya.

Beliau berkata, strategi baru

20 Feb 2005

tersebut akan memberi tumpuan bagi memastikan lebih ramai pelajar bumiputera menceburi bi-dang latihan dan kemahiran bagi memenuhi tuntutan pasaran.

"Kita juga akan merangka strategi bagi mengubah sikap siswazah supaya memberi keutamaan untuk bekerja sendiri dengan membuka perniagaan atau ter-babit dalam sektor pertanian," ujarnya.

Tambah beliau, bidang pengajian di universiti juga akan dipas-tikan tidak terlalu berorientasikan akademik, sebaliknya harus memasukkan elemen-elemen kemahiran.



www.utm.my

Jobless graduates lack critical skills

N By Annie Freeda Cruez

RUALA LUMPUR. Tues. — The Government is concerned about the preductes, newly of whom techniques of the construction willing are trained about the preductes, newly of whom techniques and lack train spirit.

However, and lack train spirit.

However, and lack train spirit.

Tong Chen. One raid teedback from compleyers indicated that most of these graduates were from public universities.

There informed the University of

universities.

I have informed lies Cubinet that vandeyees prefer to employ gradiants from private institutions of higher instructs and those who return from excepts because of the qualifications and thair bolder computer skills.

university graduates find it hard to communicate in English, have no proper computer skills and are unable to interact with other races and mary out tasks as a team. They also prefer to work within the stipmand working house and do not go the worse naise to close deals after allies hours or stay back to do extra work.

Speaking to reperson after linear the market of the Graduate Training Scheme (1719) If at Crawn Princess Hotel hour, fong said the feedback he remarded from employers was submitted by the Catinot on several economic and to the Education Minister.

try.

"It's important that universities also take into consideration employers" domains so that graduates are domains and empetent when

Some 30,000 graduates register with the Manyover Department annually for jobs.

In view of the many unumphysed graduates, Fong sum Mc Givern most allocated fix100 midlion under the stimulus package to provide specialized courses for some 15,000 unemployed graduates in suite.

The graduates will be singlet Microsoft Certified Systems Entitioning, Case Certified Schworz krades which, Lieux Systems Administration, Hainess Accounting and Marketing, spect from information and removementalisms accounting and marketing spect from information and commenced spect from information and commenced who had not been amplaced since 1999 are qualified to



17,000 IT grads from local varsities jobless due to their poor English

By M.K. Megan megan@nstp.com.my

KUALA LUMPUR, Sun. - Despite the demand for skilled workers in information technology, about 17,000 - due to a massive oversupply of such 'cannot keep up will ultimately hav IT graduates from local universities - graduates, which Human Resources 'to bow out," said the source. not proficient in English.

After failing to get jobs between pursue English programmes.

A source said many of them were from local public universities and obusiness is becoming tough. No private colleges.

have been jobless because they are "Minister Datuk Dr Fong Chan Onn denied.

one and two years, many have reg-istered with the Labour Department panies carrying out downsizing or did, not meet the high standard to be retrained in other fields or winding up their operations, had worsened the situation.

A Due to increasing competition, I players enter the market with value Industry players claimed unemanded anothers the computer in ployment among these graduates was a dustry changes fast and those wh

Fong did not deny that many I graduates had registered with th The source said the increasing Labour Department but contande did not meet the high standard

-ED TURN TO PAGE 4, COL



New Strait Times, 20 April 2005

Why local grads losing out

... apart from academic excellence, most employers would require workers to possess qualities such as good attitude, strong work ethics, the ability to communicate well, a willingness to learn and to contribute new ideas.

..efforts must be taken to improve communication skills to encompass both general skills at communicating well with others and the ability to interact socially within a working environment to en- Universiti Kebangsaan He said at present, there or-general Prompas both general skills Malaysia vice-chancellor were 21,347 accountants, of Hassan Said.

UNIVERSITI TEKNOLOGI MALAYSIA

Malaysia's Premier University in Engineering and Technology



As advertised in the Sydney Morning Herald **Engineering Graduate**

If you are a final year mechanical, electrical, telecommunications or computer engineering student apply for Engineering Graduate Careers Program..

Impress us with your:

- · well developed communication and team skills
- Aptitude for developing positive business partnerships
- Ability to look outside the square
- Aptitude for independent problem solving
- Strong interpersonal and organising skills

Malaysia's France Track Not GGI MALAYSIA

ngineering and Technology



From Datuk Paul Low, Vice-President, Federation of Malaysian Manufacturers

- "Constant change is the order of the day.... Graduates often turn up without a clue to the changing dynamic global industrial environment."
- "A constant changing environment and the need to add value to gain competitive advantage demand for creativity, lateral thinking, agility and risk taking."

UNIVERSITI TEKNOLOGI MALAYSIA Malaysia's Premier University in Engineering and Technology

15

From a report on 'Employability of Malaysian Graduates' presented to the Majlis Tindakan Ekonomi Malaysia, 8 April 2003.

Reasons For Employing less local Graduates

 "Local graduates(Malays) lack of drive compared to foreign graduates. Foreigns especially those from middleincome families, they are very goal oriented. They know that they are there to complete their studies. For local ones, they have the mentality that why hurry since I have 5 years to complete a 3 year course. As long as I graduate and my parents can come for the convocation, that's good enough."

(ICT/Foreign/Chinese)

UNIVERSITI TEKNOLOGI MALAYSIA

Malaysia's Premier University in Engineering and Technology

From a report on 'Employability of Malaysian Graduates' presented to the Majlis Tindakan Ekonomi Malaysia, 8 April 2003.

Reasons For Employing less local Graduates

 "Local graduates have less exposure. They are not aggressive and dynamic. They tend to be less vocal and open-minded"

(Construction/Foreign/Chinese)

UNIVERSITI TEKNOLOGI MALAYSIA Malaysia's Premier University in Engineering and Technology

17

Skim Latihan Siswazah Menganggur diwujudkan semula

80,000 graduan dilatih

PUTRAJAYA 23 Mac — Kerajaan mengambil langkah drastik 'mengerah kan' kesemua 80,000 graduan menganggur di seluruh negara menjalani latihan kemahiran selama setahun bagi memudahkan mereka mendapat pekerjaan atau menjadi usahawan.

khas akan ditubuhkan bagi mengesan graduan-graduan menganggur ini. Pasukan khas ini yang diketuai oleh pensyarah Univarsiti Pendidikan Sultan Idris (UPSI), Prof. Madya Dr. Yusof Abu Bakar akan mengguna pakai model di Australia yang ternyata berjaya menangani

Di Australia, graduan-graduan yang tidak bekerja akan dicari dan dihantar ke kolej-kolej kemahiran untuk diberi nilai tambah

Hasilnya 90 peratus graduan itu mendapat pekerjaan. Menteri Pengajian Tinggi, Datuk Dr. Shafie Mohd. Salleh ketika mengumumkan

Kita akan tiru model itu dan cuba laksanakan di Malaysia. Mungkin dengan cara ini kita dapat mengurangkan secara berperingkat jumlah graduan mengang-

diteprotikan di kelej-kelej komunisti dar penteknik di seluruh negara. Dua hari lalu, Perdana Menteri, Datu Seri Abdullah Ahmad Badawi mengarah kan supaya Skim Latihan Siswazah Meng anggur (SLSM) diwujudkan semula bag menangani 80,000 graduan yang masil angil mendanatkan pekerjaan.

Per lana Menteri menganggap samitu masih mer mekanima terbaik bagi menangani masalah tersebut kerana sejak diperkenalkan pada 2001, 80 peratus pelajar yang mengikutinya mendanat pekeria-

Utusan Malaysia, 24 Mac 2005

Skim Latihan Siswazah Menganggur (SLSM) diwujudkan semula bagi menangani 80,000 graduan yang masih gagal mendapatkan pekerjaan



One-year internship mooted for undergrads

shalle said his Ministry would also consider sending would also consider sending would also consider sending the period of study from three years to four.

He was speaking to reporters after chairing a meeting of university chancellors and businessmen to discuss the perennial problem of why local graduates were unemployable.

The study of the programme, Shalle said his Ministry would also consider sending studies and the study of the study of

There are 18,000 unemployed graduates and some reasons given for their predicament were a poor command of the English language and lack of marketable skills.

Malaysia's Premier University in Engineering and Technology

19

Reasons given by employers for not hiring young graduates

- Low grades and low levels of academic accomplishments
- Poor attitudes, lack of self-confidence
- Lack of goals, poorly motivated
- Lack of enthusiasm, lack of drive, little evidence of leadership potential
- Lack of preparation for the interview
- Excessive interest in security and benefits, unrealistic salary demands and expectations
- Inadequate preparation for type of work, inappropriate background

UNIVERSITI TEKNOLOGI MALAYSIA

Malaysia's Premier University in Engineering and Technology

Views from Industry

From Datuk Paul Low, Vice-President, Federation of Malaysian Manufacturers

- "Constant change is the order of the day.... Graduates often turn up without a clue to the changing dynamic global industrial environment."
- "A constant changing environment and the need to add value to gain competitive advantage demand for creativity, lateral thinking, agility and risk taking."

UNIVERSITI TEKNOLOGI MALAYSIA Malaysia's Premier University in Engineering and Technology

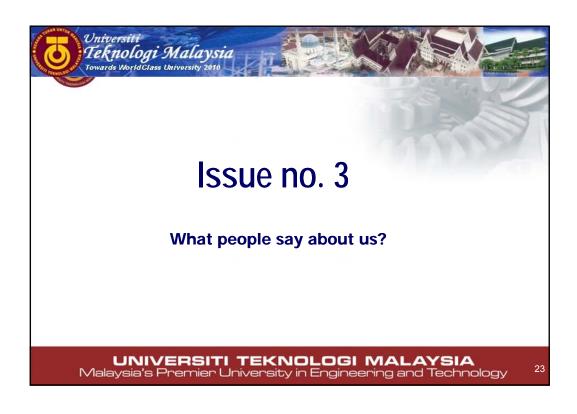


From a report on 'Employability of Malaysian Graduates' presented to the Majlis Tindakan Ekonomi Malaysia, 8 April 2003.

Reasons For Employing More Foreign Graduates Attitude of Foreign Graduates

"Foreign graduates are more open-minded and more importantly, they are risk-takers. Even during big meetings we can see that those who dare to share their views are more of foreign gradates."

(Property/Local/Malay)







CURRENT SCENARIO?

- the tendency of imparting and evaluating only technical outcomes of graduates.
- Some non-technical outcomes of graduates are imparted ASSESSED and EVALUATED formally only in related non-engineering subjects.
- Students are not being assessed, evaluated, and informed of the levels of achievement of the overall outcomes.

CURRENT SCENARIO?

- documented evidences on the achievement of the graduate attributes scarcely available
- rarely include external stakeholders or constituencies and hence little feed back received from these very important components.
- Not much assurance on the delivery of the outcome capabilities in every postgraduate.

UNIVERSITI TEKNOLOGI MALAYSIA Malaysia's Premier University in Engineering and Technology

27

CURRENT SCENARIO?

- Quality system not embracing and assuring the whole cycle of setting objectives, outcomes, targets, learning design, delivery and performance measurement across a wide range of targeted graduate capabilities.
- This contrast with the *quality assurance systems* which, can guarantee that these particular quantitative outcomes will be satisfied by the University itself.

UNIVERSITI TEKNOLOGI MALAYSIA Malaysia's Premier University in Engineering and Technology



So... what next?

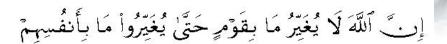
UNIVERSITI TEKNOLOGI MALAYSIA Malaysia's Premier University in Engineering and Technology



Perubahan/Change?

- Do we need to do something about it?
- Keep your mind open to change all the time. Welcome it. Court it. It is only by examining and reexamining your opinions and ideas that you can progress. (Dale Tarnegie)





Sesungguhnya Allah tidak mengubah apa yang ada pada sesuatu kaum sehingga mereka mengubah apa yang ada pada diri mereka sendiri.

(Surah Ar Ra'd 11)

UNIVERSITI TEKNOLOGI MALAYSIA Malaysia's Premier University in Engineering and Technolog:

31

Change?

Survey by Harvard Univ.

 ..large measure of satisfaction with technical competence of the graduating students... can crunch numbers, analyse markets.... But when it comes to humanrelation skills, Harvard is stepping up its effort... That seems where improvements are needed.. Oral and written communication, teamwork, and other human skills...







What is Outcome-Based Education ?

"OBE, like most concepts in education, has been interpreted in many ways" (Killen, 2000)

Talking about OBE, there are 3 levels:

- 1. Philosophy / Theory / "Broad Perspective"
- 2. Curricula / structures / procedures
- 3. Classroom practice (PBL, CL, AL, etc)

UNIVERSITI TEKNOLOGI MALAYSIA Malaysia's Premier University in Engineering and Technology



OUTCOME-BASED EDUCATION (OBE)

- An educational philosophy that states education ought to be aimed at producing particular educational outcomes:
 - Giving students a particular, minimum level of knowledge and abilities.
- OBE addresses the following questions:
 - What do you want the students to learn?
 - Why do you want them to learn?
 - How can you best students learn it?
 - How will you know what they have learnt?

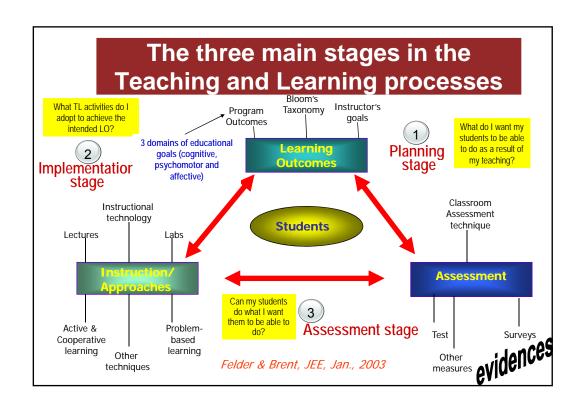


Outcomes Based Education?

Outcomes Based Education focuses on student learning by:

- Using learning outcome statements to make explicit what the student is expected to be able to know, understand or do;
- Providing learning activities which will help the student to reach these outcomes;
- Assessing the extent to which the student meets these outcomes through the use of explicit assessment criteria.

UNIVERSITI TEKNOLOGI MALAYSIA Malaysia's Premier University in Engineering and Technology





Paradigm Shift in the Education & **Training Philosophy**

- From teacher-centred to a student-centred
- Traditional teaching : modern teaching: teacher "owns" the students (trainee) to learn knowledge and convey as much as possible. it to the students.
- Teacher brings the content and the answers into the training room with him / her.
- → teacher as a coach who asks questions and provides quidelines for the acquisition of knowledge.

UNIVERSITI TEKNOLOGI MALAYSIA Malaysia's Premier University in Engineering and Technology

What is Outcome-Based Education ?

Outcomes Based Principles (Spady, 1994; Killen, 2000)

OBE Principles	Explanation	Application to practice
Clarity of focus	Focus on what want learners be able to do successfully	Help learners develop competencies Enable predetermined significant outcomes Clarify short & long term learning intentions Focus assessments on significant outcomes
Design down	Begin curriculum design with a clear definition of the significant learning that learners are to achieve by the end of their formal education	Develop systematic education curricula Trace back from desired end results Identity "learning building blocks" Link planning, teaching & assessment decisions to significant learner outcomes
High expectations	Establish high, challenging performance standards	 Engage deeply with issues are learning Push beyond where normally have gone
Expanded opportunities	Do not learn same thing in same way in same time	 Provide multiple learning opportunities matching learner's needs with teaching techniques

Content Based Learning System	Outcomes Based Learning System	
Passive students	Active learners	
Assessment process – exam & grade driven	Continuous assessment	
Rote learning	Critical thinking, reasoning, reflection & action	
Content based/broken into subjects	Integration knowledge, learning relevant/ connected real life situations	
Textbook/worksheet focused & teacher centred	Learner centred & educator/ facilitator use group/ teamwork	
See syllabus as rigid & non negotiable	Learning programmes seen as guides that allow educators to be innovative & creative in designing programmes/ activities	
Teachers/trainers responsible for learning - motivated by personality of teacher	Learners take responsibility for their learning, learners motivated by constant feedback/ affirmation of worth	
Emphasis what teacher hopes to achieve	Emphasis outcomes – what learner becomes & understands	
Content placed in rigid time frames	Flexible time frames - learners work at own pace	
Stay in single learning institution until complete	Learners can gather credits different institutions until achieve Qualification	
Previous knowledge & experience in learning field ignored – Each time attends whole course	Recognition of prior learning: after pre-assessment, learners credited outcomes demonstrated or transfer credits elsewhere	
Vic. 1997 W. A. C. (parketon)		
UNIVERSITI Malaysia's Premier Lir	TEKNOLOGI MALAYSIA niversity in Engineering and Technology 41	

Differences between contents-based education and OBE PROCESS STEP Contents-based Education Outcomes-based Education Needs analysis A very few parties are consulted before trainers All stakeholders are consulted prior to develop courses curriculum development: employers, employees, themselves. government, special interest groups, providers and learners. Trainers decide on how needs are determined and expressed. The end-product of needs analysis is reflected as unit standards. Learning programmes are designed according to Course design Instructional designers develop courses around the the needs of the above six stakeholders. The outcomes of a course are written as Outcomes clearly indicate what the learner must objectives. be able to do in line with national standards. **UNIVERSITI TEKNOLOGI MALAYSIA**Malaysia's Premier University in Engineering and Technology

Differences between contents-based education and OBE			
PROCESS STEP	Contents-based Education	Outcomes-based Education	
Learning material	The learning material is called study manuals or textbooks which is contents-driven. The instructor determines the content. The content is mainly theoretical.	Learning material is called learning guides and is outcomes-driven. The contents are determined by the inputs of various role-players. The contents are practical, addressing particular skills.	
Presentation	The instructor presents a pre-determined lesson The instructor is in control of the learning event.	A facilitator presents a lesson based on the unit standard in a flexible manner The facilitator guides learners to achieve outcomes.	
Assessment	Learners do assignments and write tests and examinations in order to indicate their level of competence. Assessment criteria are non-existent or vague	A variety of assessment techniques are used, for example simulations, portfolios, self assessment, workplace assessment. Assessment criteria are clearly defined and indicated as part of the unit standard.	
UNIVERSITI TEKNOLOGI MALAYSIA Malaysia's Premier University in Engineering and Technology			

Learning System Characteristics	Content Based (Traditional/Transactional)	Outcomes Based (Transformational)	
Framework	 ❖ Predefined curriculum, assessment & credentialing in place ❖ Structures "ends", no defined learners' outcomes 	 ❖Curriculum, instructional strategies, assessment & performed standards ❖Structures support outcomes, flexible & a means to define "learning ends" 	
Time	❖Inflexible constraint for educator & learner schedule controls learning & success	❖Used alterable source – match needs of educator & learners	
Performance standards	❖Comparative & competitive approach ❖Learners potentially able receive creations achieving performance standards possible successes ❖No quotas & standards pursued		
Learning assessments	 ❖Continuous testing & permanent grading ❖Mistakes on permanent record: best grades & records fast & consistent performers; slower learners never catch up ❖Never assess/ document what learners can ultimately do successfully 	*Macro view learning & achievement *Mistakes inevitable steps in development, internalizing & demonstrating high level of performance capabilities *Ultimate achievement what able to do	
Learning Syst	ems: Content Based versus Outcomes Based	4	



Ruth Stiehl, "Teaching Toward Significant Outcomes," Oregon State U, www.c2t2.ca/

	Content Framework (Traditional)	Competency Framework (60's model)	Outcome Framework (21st century)
Intent	"Cover Topics"	Check-off discrete tasks	Demonstrate significant "whole" task
Instructor	Expert: Disseminator of information	Give instruction and check-off tasks	Coordinate collaborative investigation
Student Role	Receiver: Stores and returns information	Practices and demonstrates small, isolated tasks	Active collaborator and investigator; synthesizer
Content	Topics	Performance Objective	Concepts and process skills
Materials	Cover textbooks	Use Multimedia	Access multiple sources
Evaluation	Competitive: quiz and test	Meet minimum standard	Assessment against quality standards; continuous, self, peer and instructor assessment

UNIVERSITI TEKNOLOGI MALAYSIA Malaysia's Premier University in Engineering and Technology



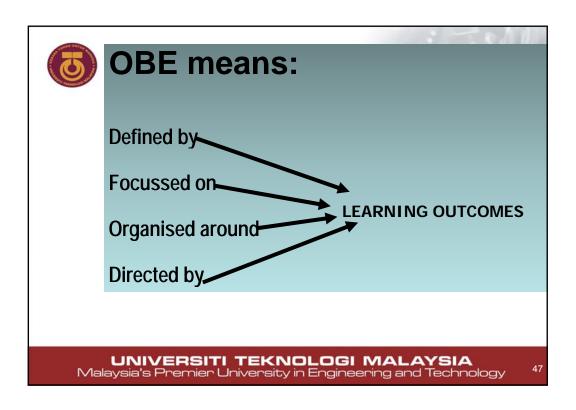
"destination" "end of journey"

OBE:

Focusing on the outcomes of programme implementation

> "Always begin with the end in mind"

> > ■ Steven Covey's 7 Habits of Highly Successful People





Under OBE, curriculum design includes these steps:

- Determine future conditions
- Derive exit outcomes
- Develop performance indicators
- Determine instructional strategies
- Deliver instruction
- Document results
- Determine advancement

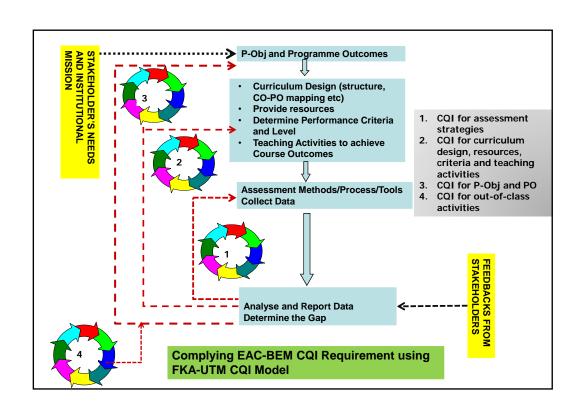
UNIVERSITI TEKNOLOGI MALAYSIA Malaysia's Premier University in Engineering and Technology

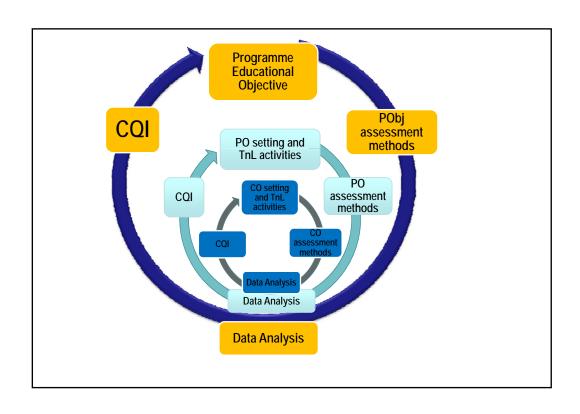


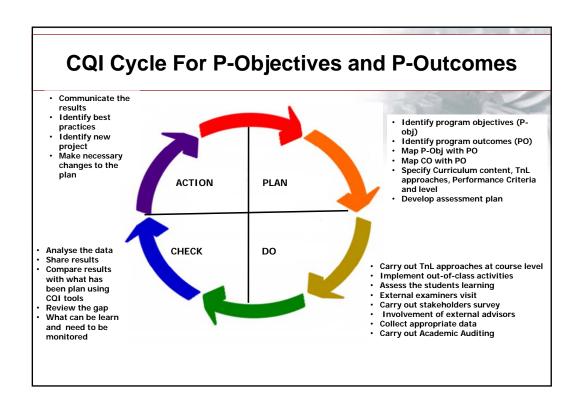
Some immediate Advantages:-

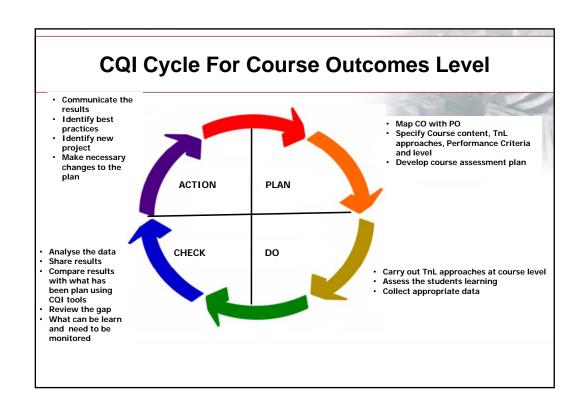
- Always alert on quality of graduates
- More effective & innovative teaching
 PBL, CL, etc
- · More industry input











IMPLICATION OF CHANGES TO OBE

- Need to understand what is OBE.
- •Need to specify programme educational objectives.
- •Need to specify learning outcomes.
- ·Need to revise curriculum.
- •Need to change teaching, assessment, and evaluation method.
- •Need to start documenting evidences on OBE.
- •Need to send staff for training on OBE.
- •Need to resist disagreement from faculty members.
- •Etc.

