


Kecemerlangan & Sanjungan P&P

**“PBL-Within the problem
lies the solution”**

Prof Ts Dr. Faaizah Shahb
CAES, FTMK,
UTeM



Post covid-academic work

Covid-19 and the subsequent Movement Control Order (MCO) imposed by the government has deeply impacted the tertiary education sector in Malaysia.

Private colleges and universities in Malaysia will face financial pressure as enrolment of students is likely to be delayed or deferred.

Even if classes can move online, challenges remain. For example, scientific research and classes that require a laboratory setting will be impacted.

Additional measures have to be in place to minimize disruptions in the tertiary education sector. Emphasis on digital education is a clear step forward but this has to be complemented with better cyber security.

Tertiary education institutions also need to increase support for less-privileged students.

<https://penanginstitute.org/publications/covid-19-crisis-assessments/covid-19-impact-on-the-tertiary-education-sector-in-malaysia/>



Operational Definition

Kecemerlangan

- kegemilangan; kecerdasan (otak):
- Contoh: *kecemerlangan otaknya boleh dimajukan*

Sanjungan

- kata pujian yang diucapkan sebagai pernyataan kagum atau senang terhadap orang lain; pujian; penghormatan:
- Contoh: *berkat keberhasilannya, ia mendapat sanjungan dari masyarakat luas*



Model Kesarjanaan

- 5 komponen yang terkait dalam sebutan kesarjanaan adalah:
 1. Ilmu yang tinggi
 2. Pencarian kebenaran bidang
 3. Perkongsian penemuan
 4. Penerokaan minda
 5. Ilmu yang berhasil dan bermakna



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6 KRITERIA PENILAIAN AAN



PORTAL RASMI
KEMENTERIAN PENDIDIKAN TINGGI

- 1 Falsafah pengajaran dan pembelajaran.
- 2 Strategi keseluruhan tentang kaedah pengajaran / penyeliaan dan penilaian.
- 3 **Kreativiti*** dan **inovasi*** serta impaknya terhadap pengajaran dan pembelajaran.
- 4 Penilaian dan testimonial pengajaran/penyeliaan.
- 5 Penambahbaikan pengajaran / penyeliaan dan penilaian serta pembangunan profesional.
- 6 Kesarjanaan dalam pengajaran / penyeliaan dan penilaian.

<https://www.mohe.gov.my/>



Kreativiti

- Kreativiti ialah penjanaan idea atau teknik atau strategi baru dalam pengajaran dan pembelajaran serta penilaian. Kreativiti diukur berdasarkan kebaharuan idea dan penggunaan unsur-unsur terbaharu (seperti teknologi /ICT/strategi pengajaran terkini) dalam pengajaran dan pembelajaran serta penilaian.



Inovasi

- Inovasi ialah usaha menambah nilai pengajaran dan pembelajaran serta penilaian bagi kursus-kursus yang diajar. Kejayaan inovasi diukur berdasarkan impaknya terhadap meningkatkan motivasi dan kualiti pembelajaran pelajar.



1. Falsafah pengajaran dan pembelajaran yang menggambarkan keserjanaan

- Pernyataan falsafah yang jelas dengan kepercayaan dan nilai
- Pernyataan teori/model yang mendasari falsafah pengajaran dan pembelajaran



2. Pernyataan strategi perancangan dan pelaksanaan keseluruhan tentang kaedah pengajaran/penyeliaan dan penilaian.

Perincian dan jelaskan strategi perancangan dan pelaksanaan yang dilakukan terhadap perkara berikut:

- a) Pengajaran/penyeliaan
- b) Penilaian

Sertakan bahan bukti/maklumat yang berkaitan dengan pernyataanstrategi di atas, contoh:

- Senarai kursus
- Rangka kursus dan bilangan pelajar
- Bilangan pelajar diselia mengikut peringkat Sijil/Diploma/Sarjana Muda/ Sarjana/PhD



3. Kreativiti dan inovasi serta impaknya terhadap pengajaran dan pembelajaran (kaedah pengajaran/penyeliaan dan penilaian)

- (a) Pernyataan kreativiti dan inovasi yang sejajar dan menyokong:
 - falsafah pengajaran/penyeliaan dan penilaian
 - kaedah pengajaran/penyeliaan dan penilaian
- (b) Terangkan kreativiti dalam inovasi yang dilaksanakan
 - i. Ciri-ciri inovasi
 - Asli
 - Signifikan
 - Relevan
 - ii. Kaedah pengajaran dan pembelajaran atau penilaian yang merangsang dan memupuk kemahiran berfikir aras tinggi (KBAT)
 - iii. Kesejajaran antara kaedah pengajaran/penyeliaan dan penilaian dengan hasil pembelajaran
- (c) Impak inovasi yang digunakan terhadap kualiti pengajaran kepada
 - i. Peningkatan pencapaian pelajar
 - ii. Kualiti hasil kerja pelajar

Sertakan bukti bagi menyokong bahagian yang berkenaan.



4. Penilaian dan testimonial pengajaran/ penyeliaan

- 4.1 Sertakan bukti hasil penilaian pengajaran/penyeliaan oleh pelajar
- 4.2 Sertakan testimonial pengajaran/penyeliaan berkesan daripada pelbagai sumber merangkumi:
 - Pelajar
 - Rakan Sejawat
 - Jabatan/Fakulti
 - Universiti
 - Komuniti/Industri



5. Penambahbaikan pengajaran/penyeliaan dan penilaian serta pembangunan profesional

- (a) Penambahbaikan kaedah pengajaran/penyeliaan dan penilaian melalui amalan reflektif yang merangkumi:
- i. Dokumentasi refleksi
 - ii. Analisis/sintesis untuk penambahbaikan
 - iii. Tindakan dan perkongsian
- (b) Pembangunan profesional dalam pengajaran/penyeliaan dan penilaian



6. Kesarjanaan dalam pengajaran/penyeliaan dan penilaian

- 6.1 Perkongsian ilmu dan amalan pengajaran/penyeliaan dan penilaian di pelbagai peringkat (universiti/kebangsaan/antarabangsa) melalui mana-mana yang berikut:
- Media sosial (termasuk YouTube, blog, Facebook dll)
 - Bengkel/seminar
 - Komuniti pembelajaran (*Special Interest Group*)
 - Modul pembelajaran/ buku teks
 - Penerbitan berwasit
 - Penerbitan digital (contoh e-buku, e-jurnal)
- 6.2 Pengiktirafan (anugerah/jemputan ucap utama/seminar/ penceramah jemputan/jurulatih utama/mentor) yang diperolehi
- 6.3 Kepimpinan (pengerusi/jawatankuasa) dalam komuniti akademik (fakulti/universiti/persatuan akademik kebangsaan/ antarabangsa) yang berkaitan dengan pengajaran dan pembelajaran



ANUGERAH AKADEMIK NEGERA KE-9

**ANUGERAH PENGAJARAN
(KELOMPOK SASTERA DAN SAINS SOSIAL)**

Penerima : **Prof. Madya Dr. Raja Nor Safinas binti Raja Harun**
Institusi : **Universiti Pendidikan Sultan Idris (UPSI)**

Prof. Madya Dr. Raja Nor Safinas binti Raja Harun dilahirkan pada 19 Oktober 1970 dan berkelulusan tinggi ceria serta bersemangat tinggi menjadi nilai tambah buat **Prof. Madya Dr. Raja Nor Safinas binti Raja Harun** dalam Universiti Islam Antarabangsa Malaysia pada tahun 1999 sebelum berjaya memajukan pengajian di peringkat Doktor Falsafah (PhD) dalam bidang TESL/Pendidikan di *University of Exeter, United Kingdom* pada tahun 2006.

Pada pendapat beliau, proses pengajaran dan pembelajaran perlu dijadikan sebagai satu proses bermakna yang menyediakan peluang dan platform kepada para pelajar supaya dapat berinteraksi dengan berkesan. Beliau juga menggunakan pendekatan 'coaching' iaitu dengan cara memberi galakan dan dorongan supaya pelajar dapat memahami dengan mudah subjek yang diajar. Inovasi dan kreativiti beliau juga terserlah dalam penggunaan *Integrated Portfolio, designing e-book dan e-portfolio* untuk kemudahan para pelajar yang mengikuti subjek beliau. Impak dalam pengajaran dan pembelajaran dapat dilihat melalui hasil penyelidikan yang dikongsi dalam pembentangan, media sosial, penulisan berwujud dan ucapan jemputan di peringkat kebangsaan.

Falsafah pengajaran dan pembelajaran **Prof. Madya Dr. Raja Nor Safinas binti Raja Harun** adalah berteraskan 'constructivist learning theory'. Antara kaedah yang digunakan oleh beliau adalah berpusatkan strategi 'coaching for learning', metakognitif, reflektif, interaksi berbilang dan *community of practice & personal*.





ANUGERAH AKADEMIK NEGERA KE-9

**ANUGERAH PENGAJARAN
(KELOMPOK SASTERA DAN SAINS SOSIAL)**

Penerima : **Prof. Madya Fatimah binti Puteh**
Institusi : **Universiti Teknologi Malaysia (UTM)**

Prof. Madya Fatimah binti Puteh dilahirkan pada 25 Februari 1962 dan memegang *Certificate in English for Academic Purpose (EAP)* dari *University of Essex, England* pada tahun 1982 dan kemudiannya memegang pengajian di universiti yang sama dan memegang *B.A(Hons), Language Studies (English)* pada tahun 1986. Berkecuali akan serta minat yang tinggi dalam bidang pengajaran, beliau menerima pengajian di peringkat Sarjana dan berjaya memperoleh *M.A. in Applied Linguistics (with special reference to English Language Teaching)* di *University of Durham, England* pada tahun 1991.


Prof. Madya Fatimah binti Puteh mula berkhidmat di Universiti Teknologi Malaysia (UTM) pada tahun 1987 dan kini beliau memegang jawatan sebagai *Associate Professor of Language Academy, UTM*. Beliau juga memegang *Manager of MyCIE, National Language Learning Portal* satu portal yang memajukan pembelajaran bahasa Inggeris dalam talian dan dipaparkan oleh semua universiti awam di Malaysia. Ia membekalkan bahawa pengkajian ilmu dalam pengajaran bahasa Inggeris secara mesej melalui pengunaan MyCIE telah berjaya menarik minat pelajar untuk mempelajari bahasa Inggeris secara interaktif & samping kemudian akses terhadap bahan-bahan pembelajaran secara dalam talian.

Pengalaman **Prof. Madya Fatimah binti Puteh** selama 15 tahun berkhidmat sebagai tenaga pengajar telah menarik minat beliau untuk mempelajari dengan lebih mendalam berkaitan *Computer Assisted Language Learning (CALL)* dan hasilnya beliau telah berjaya mengumpul buku bertajuk *CALL: Dari segi penelitian, beliau telah mendapat sebanyak 202 copyright bagi tahun 2016, 2017, 2018, 2019 dan 2020* bertajuk *CALL: Dari segi penelitian, beliau telah mendapat sebanyak 202 copyright bagi tahun 2016, 2017, 2018, 2019 dan 2020* bertajuk *CALL: Dari segi penelitian, beliau telah mendapat sebanyak 202 copyright bagi tahun 2016, 2017, 2018, 2019 dan 2020*.

Sebagai seorang yang mementingkan inovasi dalam proses pengajaran dan pembelajaran, **Prof. Madya Fatimah binti Puteh** telah menggunakan pendekatan teknologi terkini seiring dengan pendirian semasa untuk menjadikan e-pembelajaran sebagai bahan utama dalam proses tersebut dan ini dapat memudahkan pelajar untuk mengakses bahan-bahan tersebut pada bila-bila masa dan tidak terhad hanya di dalam kelas sahaja.

Semangat tinggi yang ditunjukkan **Prof. Madya Fatimah binti Puteh** dalam bidang yang dibekuti telah berjaya diiktirafkan melalui pengiktirafan di peringkat universiti dan antarabangsa. Beliau juga memegang *Man-Computer Assisted Language Learning Association (MALL)*.





PROSEDUR PENILAIAN

1: Simulasi Pengajaran

Masa yang diperuntukkan bagi simulasi pengajaran adalah 15 minit. Perkara yang dinilai dalam simulasi pengajaran:

- 1.1 Keberkesanan komunikasi
- 1.2 Kejelasan penyampaian
- 1.3 Keberkesanan penggunaan bahan bantu mengajar
- 1.4 Keupayaan meyakini dan memotivasikan 'pelajar'
- 1.5 Keupayaan melibatkan 'pelajar' secara aktif dan berkesan
- 1.6 Keupayaan menilai pemahaman 'pelajar'



LONJAKAN 2: KECEMERLANGAN BAKAT

Operational Definition of the four (4) Tracks

- ❖ Teaching (Inspiring Lecturer): Influential in **high impact teaching** over and above other academic roles and responsibilities.
- ❖ Research (Accomplished Researcher): Influential in **high impact research** over and above other academic roles and responsibilities.
- ❖ Practitioner (Experienced Practitioner): Influential in **practical experience and application** over and above other academic roles and responsibilities.
- ❖ Leadership (Transformative Institutional Leader): Influential in **institution building** over and above other academic roles and responsibilities.

G4: Competent & Robust Talent

high competent and skilled technology scholars

Competent and highly skilled Administrative and Technical Staff

High Potential Leaders

REHAL Respect, Happiness, Love

Inspired Educators

Accomplished Researchers

Experienced Professional

Practitioners



SO1: Technology Scholars

A person who studies, invents and enhances technology, its application and impact; and is an **expert and specialist** in the **application of the technology**. The **technology (knowledge of technique)** is highly **relevant to the industry and societal needs**, and the person is **referred** to and is respected by industry and society, as an inspiring educators, accomplished researchers and experienced professional practitioners.



PENDIDIK



- Espouses a clear philosophy and theory of teaching and learning
- Exhibits creativity and innovation in teaching, learning and assessment
- Introduces innovation that impacts learning
- Outstanding contribution(s) to leadership of teaching and learning and recognized nationally and internationally
- Engaged in scholarly activities and/or pedagogic research in their subject area and/or innovation

PENYELIDIK



- Demonstrate excellence in research and produce original work which make significant impact in the field
- Significant contribution(s) to the body of knowledge through research of international standing
- Ability to attract major research grants
- Impact of research on community and society at large (knowledge transfer takes place)

PENGAMAL PROFESIONAL



- Demonstrate excellence in professional practice
- Authority in the field of specialization and contribute to practice in the field at both national and international level
- Major contribution(s) and innovation to the development of their respective profession
- Evidence of international/national recognition of excellence through consultancy activities
- Where applicable, obtain certification by relevant bodies

PEMIMPIN INSTITUSI



- Demonstrate excellence in Institutional leadership
- Lead and empower institution to serve university, community and nation, in order to achieve national agenda
- Demonstrate good leadership attributes
- Demonstrate changes in organization through effective leadership
- A recognised figure at national and international level
- Demonstrate overall understanding of key aspects of management, and rules and regulations.
- Visionary and having a strategic mindset

Proficiency Levels

Proficiency Level	Description
Basic	<ul style="list-style-type: none"> ▪ Basic understanding or knowledge needed for the job ▪ Basic understanding and knowledge sufficient enough to handle routine tasks ▪ Requires some guidance or supervision when applying the competency ▪ Understands and can discuss terminology and concepts related to the competency
Proficient	<ul style="list-style-type: none"> ▪ Detailed knowledge, understanding, and application of the competency required to be successful in the job ▪ Ability to handle non-routine problems and situations ▪ Requires minimal guidance or supervision / works independently ▪ Consistently demonstrates success in the competency ▪ Capable of assisting others in the application of the competency
Advanced	<ul style="list-style-type: none"> ▪ Highly developed knowledge, understanding, and application of the competency required to be successful in the job and organization (total mastery) ▪ Can apply knowledge outside the scope of one's position ▪ Is able to coach or teach others on the competency ▪ Has a long-term perspective ▪ Helps develop materials and resources in the competency
Expert	<ul style="list-style-type: none"> ▪ Specialist/Authority level knowledge, understanding, and application of the competency required to be successful in the job. ▪ Recognized by others as an expert in the competency and is sought out by others throughout the organization (expert in the area) ▪ Works across team, department, and organizational functions ▪ Applies skill across multiple projects or functions ▪ Able to explain issues in relation to broader organizational issues ▪ Creates new applications or processes ▪ Has a strategic focus

CATEGORY	Functional		
CLUSTER	Transformative Pedagogical Knowledge and Scholarship		
COMPETENCY	Transformative Assessment		
DEFINITION	Assessment is the ongoing process of establishing clear, measurable expected outcomes of student learning. It is the process of gathering and evaluating the gaps between knowledge rendered and knowledge retained.		
COMPETENCY LEVEL			
Novice	Qualified	Proficient	Expert
<ul style="list-style-type: none">Understand the basic competence in the educational assessment of students.Understand the appropriate and useful mechanics of constructing various assessments.Collect information about students that will help to provide additional information to a student's profile of strengths and weaknesses and allow the educators to target specific areas of need.	<ul style="list-style-type: none">Apply basic measurement principles to assessments conducted in institutional settings.Describe and diagnosis of different kinds of assessment and the appropriate assessment strategies to obtain the assessment data needed for the intended purpose.Monitor students' progress to determine whether students are making adequate progress.	<ul style="list-style-type: none">Recognise the importance, appropriateness, and complexity of interpreting assessment results considering students' linguistic and cultural backgrounds and other out-of-institution factors considering making accommodations for individual differences, including disabilities, to help ensure the validity of assessment results for all students.Ensure the assessment and information technology are employed appropriately to conduct student assessment.	<ul style="list-style-type: none">Assess the effectiveness of delivery provided in a unit or across the year was successful in helping all students meet standards or grade-level expectations.Evaluate available technology appropriately to integrate assessment results and other student data to facilitate students' learning, instruction, and performance.Judge the quality of an assessment strategy or program used for decision making within their jurisdiction.
Behavioural Indicators: <ul style="list-style-type: none">Demonstrate the understanding of basic educational assessmentIdentify various type of assessmentUse appropriate instrument to collect information on student's profile in relation to assessment	Behavioural Indicators: <ul style="list-style-type: none">Guide others on the application of the assessment measurementsVerify the validity of assessment conductedAnalyze students' progress consistentlyProvide constructive feedback on the students' achievement	Behavioural Indicators: <ul style="list-style-type: none">Evaluate the students' condition to decide the best assessment type for assessing the studentsJustify the assessment type chosen to assess the studentsMentor other lecturers on assessment strategies	Behavioural Indicators: <ul style="list-style-type: none">Innovate assessment strategies/ instruments/ approachesJudge the validity and reliability of assessment strategiesCoach other lecturers on assessment strategies

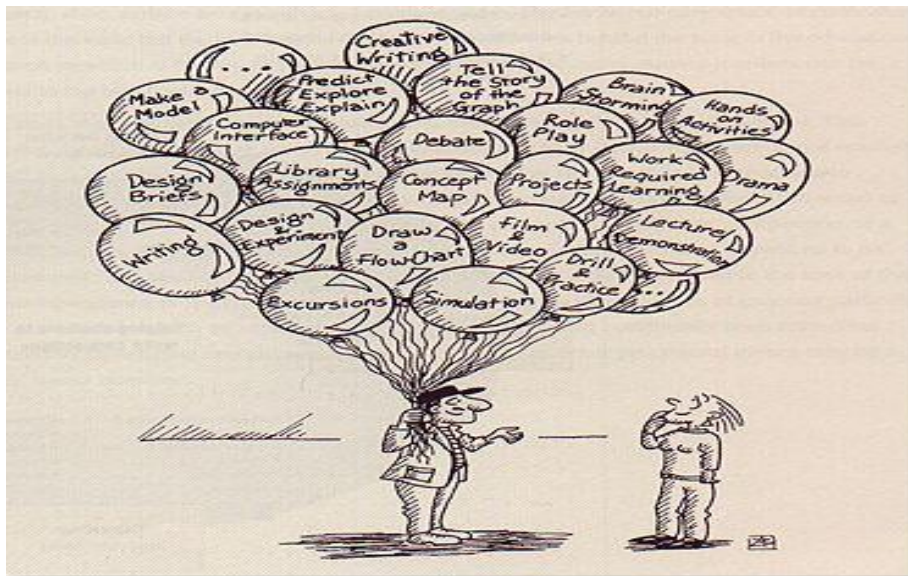
Contents

- Introduction
- 5 W + 1H of PBL
- Works done
- Issues and Challenges
- Works need to be done
- Conclusion
- Q&A

Background

- Issues related to the achievement of students in higher learning institutions in Malaysia have always been of concerned to the society.
- Reports on students' **passive** attitudes, lack of **motivation**, weakness in problem **analysis** and lack of **communication** skills have prompted certain authorities to recommend PBL approach in T&L.
- UTeM (PPP) – OBE –Active Learning and SCL, PBL.
- Extension – PhD, Short grant, Masters project, PSM

Introduction



Solving equation by

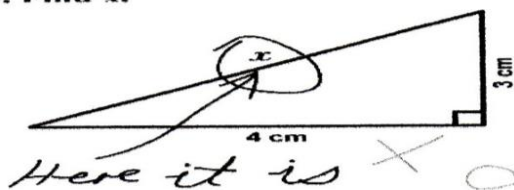
$$\frac{1}{n} \sin x = ?$$

$$\frac{1}{n} \sin x =$$

$$\sin x = 6$$

Number 11 :

3. Find x.



PBL vs Conventional (Elaine, 2016)

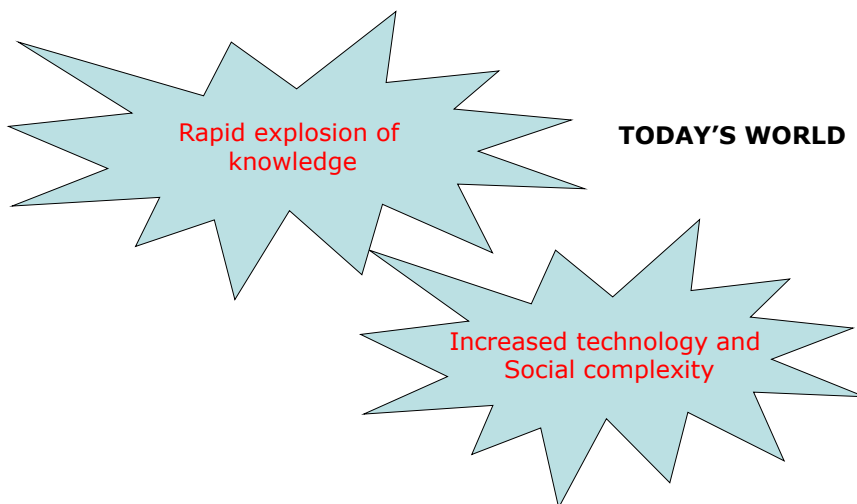
	Characteristics of PBL	Traditional teaching method
Lecturer or educator is the	<ol style="list-style-type: none"> 1. cognitive constructivist 2. curriculum designer 3. learning coordinator 	<ol style="list-style-type: none"> 1. knowledge provider 2. curriculum designer
Problem can	<ol style="list-style-type: none"> 1. be initiative for learning 2. reflect real life situation 3. motivate the learning 4. encourage critical thinking 5. integrate learning knowledge 	<ol style="list-style-type: none"> 1. examine individual learning performance in the test 2. be used as homework or assignment
Students are	<ol style="list-style-type: none"> 1. main players in small group 2. cooperative learners 3. active learners 4. self-directed learners 5. knowledge creators 6. critical thinkers 	<ol style="list-style-type: none"> 1. class partakers 2. individual learners 3. passive auditors 4. lecture note followers 5. knowledge receivers 6. memorial style learners
Tutors are	<ol style="list-style-type: none"> 1. learning facilitators 2. cognitive coaches 3. PBL discussion moderators 	<ol style="list-style-type: none"> 1. tutorial providers 2. Q&A respondents

What makes PBL Different?

Learning is:

- problem-based not discipline-based
- student-directed rather than teacher-directed
- cooperative rather than competitive
- Learn in small group
- Active, not passive learning

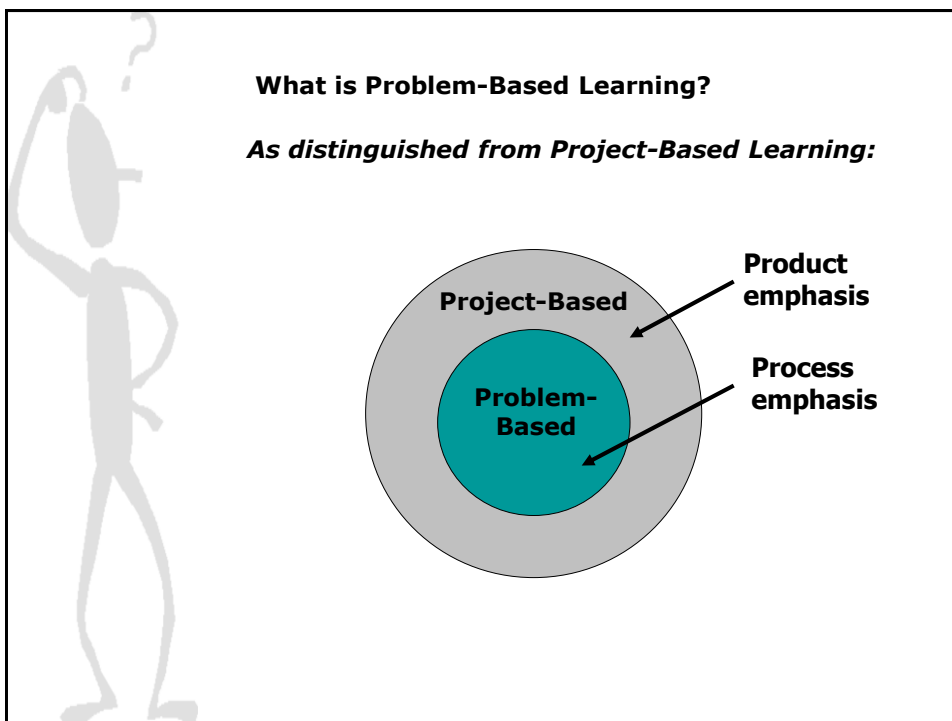
Why PBL?

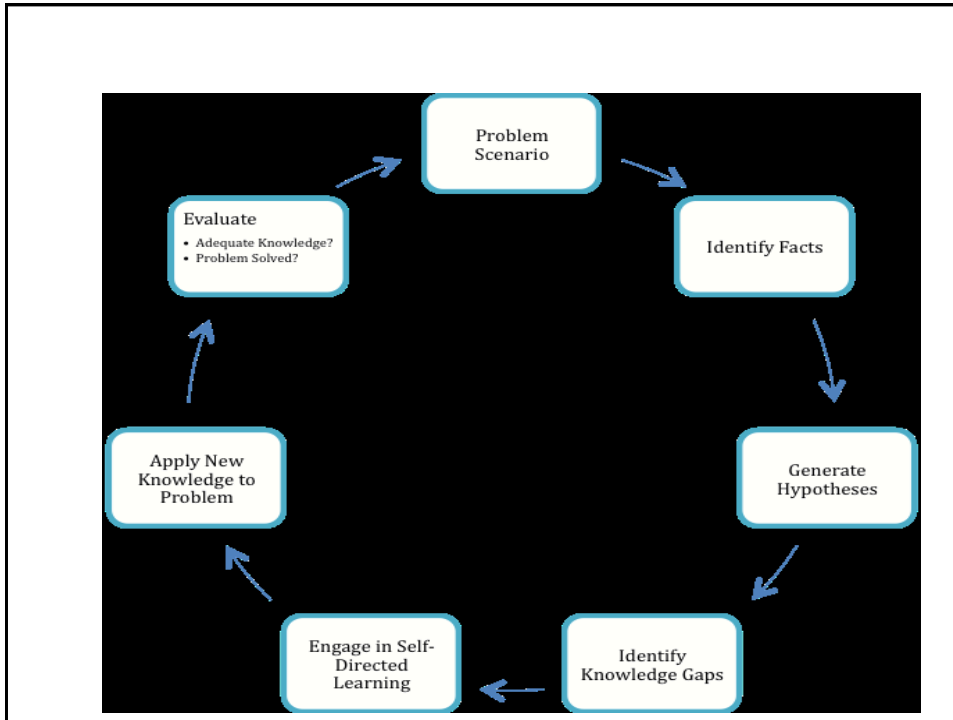


Why PBL?

- Tomorrow's graduates

- Self-directed and life-long learning skills
- Problem-solving / analytical and critical thinking skills
- Integration of inter-disciplinary knowledge/skills
- Teamwork and interpersonal skills

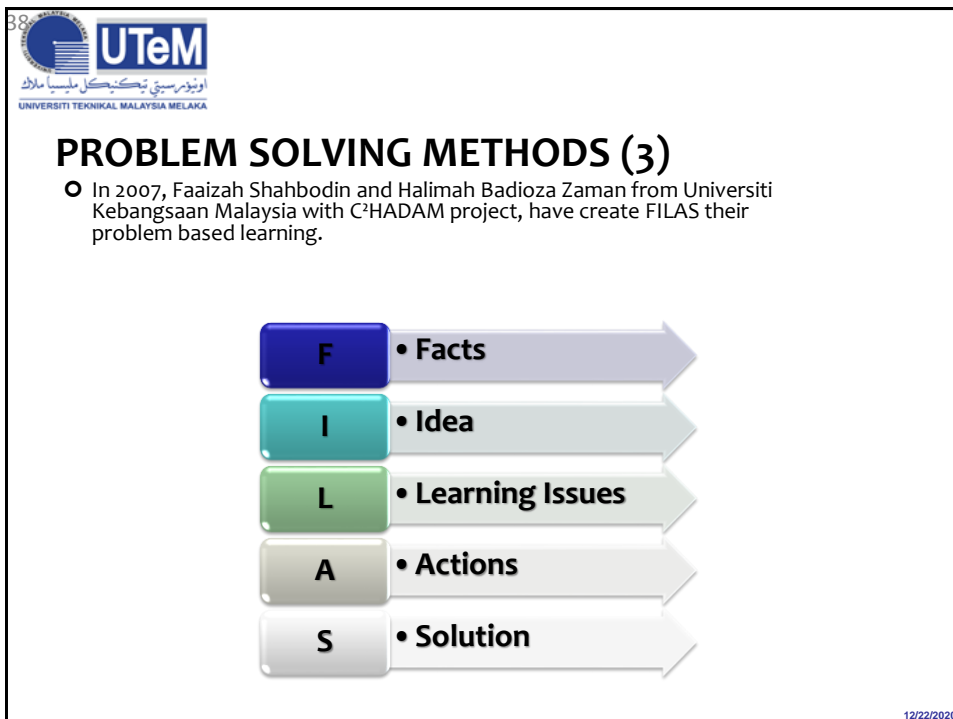
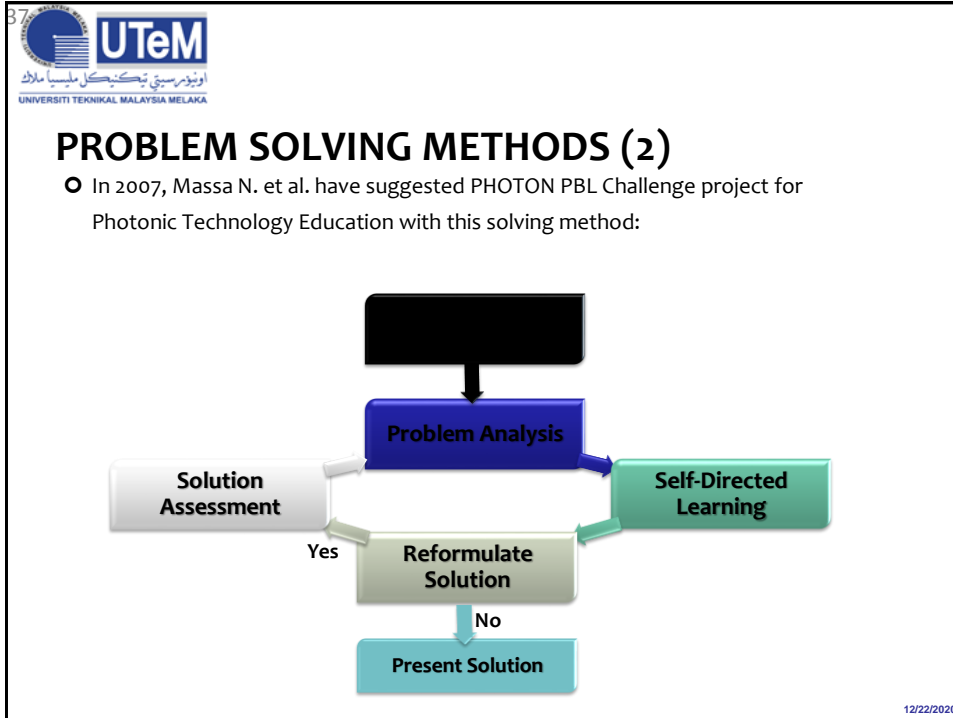




PROBLEM SOLVING METHODS (1)

In 2008, Panita Wannapiroon, Chulalongkorn University have suggested Problem Based Blended Learning model project for Education course with this solving method:

- 1) Study of content
- 2) Present the situation
- 3) Clarify the terms and concepts
- 4) Define the problem
- 5) Develop and sequencing the hypothesis
- 6) Formulate learning objective
- 7) Collect and validate new information
- 8) Synthesize information
- 9) Identify generalization & principles derived from this problem
- 10) Implementation of knowledge



PROBLEM SOLVING METHODS (4)

- In 2006, Pawson E. et al. with project of PBL in Geography have provided this problem solving method:

Questions	Find out the fact, missing point, what needed.
Action Plan	Undertake regional analysis, population analysis, and list of resources.
Investigation	Independent work complete by each group.
Revisiting the cases	Reports, revisit the questions, further investigation.
Product of performance	(option) paper, group presentation.
Evaluation	Evaluate own performance, teams performance, quality of the problem, and whole process.

12/22/2020

PROBLEM SOLVING METHODS (5)

- In 2005, Tse-Kian Neo and Mai Neo. Multimedia University, Malaysia with problem based multimedia project, used MDP.

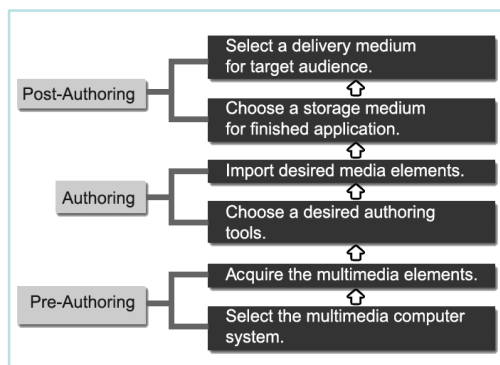


Figure 1: Multimedia Development Process in MMU (Neo & Neo, 2005)


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PROBLEM SOLVING METHODS (6)

- In 2005, Roisen Donnelly and Marian Fitzmaurice, Dublin Institute of Technology, Ireland with CPBL and PBL in Higher Education, used this solving method:



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graph LR
  A[Planning] --> B[Researching]
  B --> C[First Draft]
  C --> D[Rewriting]
  D --> E[Submitting the Project]
  
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PROBLEM SOLVING METHODS (7)

- In 2005, Mohd. Kamaruddin A. H. et al. from Universiti Teknologi Malaysia with project of PBL in engineering education used this solving method:



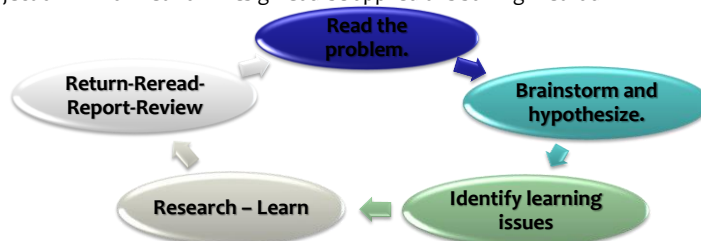
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graph TD
  A[Meeting the problem] --> B[Problem analysis and learning issues]
  B --> C[Discovery and reporting]
  C --> D[Solution presentation and reflection]
  D --> E[Overview, integration and evaluation]
  
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12/22/2020

PROBLEM SOLVING METHODS (8)

- In 2004, Rafidah Md. Noor and Nornazlita Hussin, University of Malaya with project of PBL for Network Design Course applied this solving method:



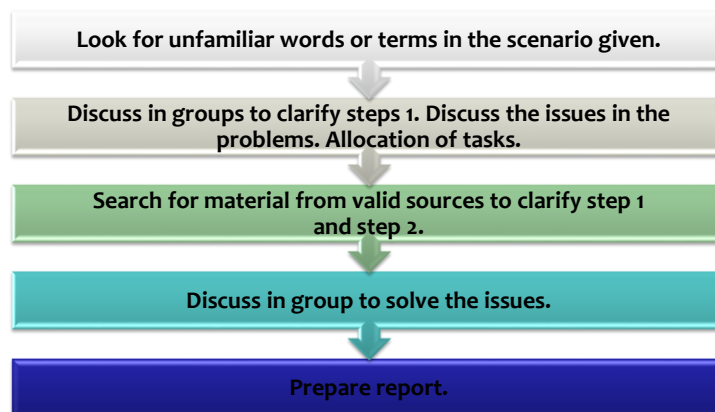
Before the end of each session:

- Identify significant issues and settle on a list of learning tasks for the next session
- Decide the issue to be tackled and divided amongst members.
- Decide what specific question needed to be answered.
- Decide how they want to address these learning issues.


12/22/2020

PROBLEM SOLVING METHODS (9)

- In 2003, Tho L. M. et al. from University of Malaya with project PBL for Management Account applied this solving method:

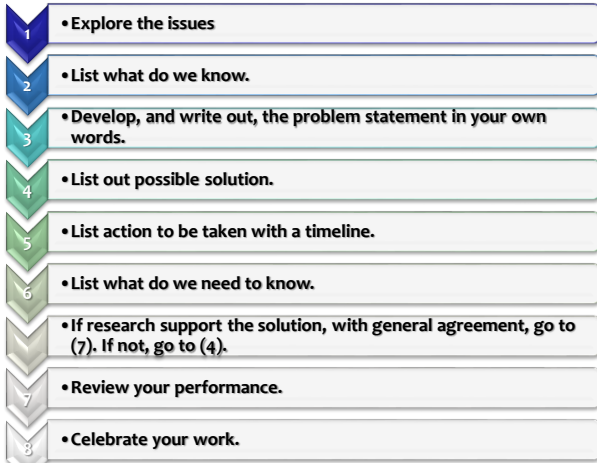


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PROBLEM SOLVING METHODS (10)

- In 2003, John W. Gardner have suggested this solving method for PBL:



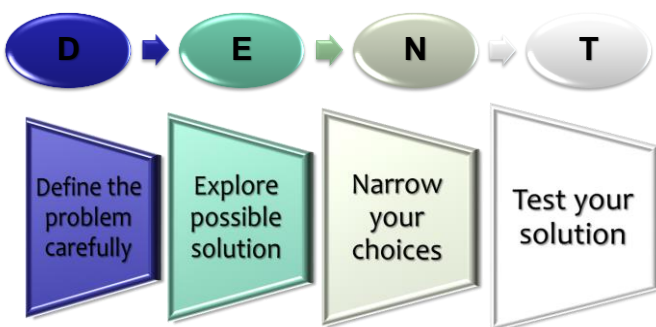
- 1 • Explore the issues
- 2 • List what do we know.
- 3 • Develop, and write out, the problem statement in your own words.
- 4 • List out possible solution.
- 5 • List action to be taken with a timeline.
- 6 • List what do we need to know.
- 7 • If research support the solution, with general agreement, go to (7). If not, go to (4).
- 8 • Review your performance.
- 9 • Celebrate your work.

12/22/2020

46  **UTeM**
UNIVERSITI TEKNOLOGI MALAYSIA

PROBLEM SOLVING METHODS (11)

- In 2001, Peter Ommundsen have suggested **DENT** as solving method for PBL using in Biology subject:



D → E → N → T

Define the problem carefully Explore possible solution Narrow your choices Test your solution

12/22/2020

PBL Planning Tools

PBL Planning Form



Information Gathering

- Student conduct independent research
 - books and journals
 - websites
 - Interview experts
 - Field trips
 - Online forum
 - wikis



And learn as much as you can from each other.

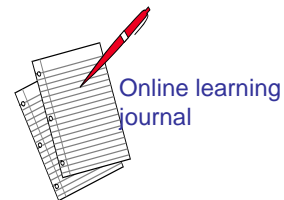
PBL Information Gathering Tools



Organizing

- Participants come together to compare notes
- Reach a consensus on the final approach
- Structure the final solution

PBL Organizing Tools



Presentation

- Present findings
 - Written report
 - Website
 - Podcast
 - Multimedia presentation

PBL Presentation



Assessment

- Evaluate the process
 - Did it work?
 - Did everyone participate?
 - What can be done to improve the process?
- Evaluate the product
 - Is the solution viable?
 - Reviews (self, peer, group, expert)

PBL Assessment Tools



The PBL Approach in delivering IT Practice

- **Tools** available in the online environment

Category	Tools	Description and Use
Content	Content File and Learning Module	Information about course, PBL tasks, supports. Learning Module allows contents to be structured.
	Local Content	Reference capability to external static resources (CD-ROM)
	Media Library	Collections of multimedia for scaffolding support and 'dynamic' resources
Communication	Announcements	Communication regarding particular events
	Calendar	Scheduling of events for course activities, group tasks
	Chat & Whiteboard	Synchronous communication and collaboration
	Discussions	Forums for discussion (asynchronous)
	Mail	Communication (private)
Evaluation	Assessments	Faculty assessment Peer assessment (eg. anonymous polls)
	Assignments	Tasks assigned to individuals or groups Group Shared Spaces can be set up for collaboration Assignments can be published (for assessment)

PBL - Malaysia

no	university	field
1	UNIMAS /UKM	Medical
2	UIA	Law
3	UTHM/ UTM	Engineering
4	UM	IT / Mathematics
5	USM	Physic
6	MMU	Multimedia
7	UTeM	Engineering & ICT

PBL – Singapore, Australia, UK, US

Research on PBL at UTeM

Research done: Short Grant

Integrating PBL Approach in Developing an Interactive Web based Learning for Technical Course

PJP/2008/FTMK (19)-S498 -**completed**

:

Developing and testing of an assessment technique using PBL approach: A case study on FTMK Human Computer Interaction (HCI) Course.

PJP/2009/FTMK (12D) S591- **completed**

Developing and testing of PBL and game technique in learning Mathematic: A case study at Merlimau Politeknik. – **completed**

PJP/2010/FTMK (15D) S789

Buku: Pembelajaran Berasaskan Masalah, ISBN 978-983-2948-67-4
Penerbit UTEM



Research, research & research

- NS PBL Learning portal – Prob solving
- myAssess – PBL assessment
- PBLstat -problem Scenario Presentation
- PBL + Animated Pedagogical Agent
- PBL + Game based learning

Development & Evaluation of PBL Problem Solving (NS-PBL): Case Study at UTeM

Student:
Nur Hazirah Bakri (graduated)
Supervisor:
1.Assoc Prof Dr. Faaizah Shahbodin
2.Dr. Norasiken Bakar

Main Page

ITQuest Portal

Nurhazirah Mohd Bakri : [My course list](#) | [My calendar](#) | [My User Account](#) | [Platform Administration](#) | [Logout](#)

Welcome To NS-PBL Learning Portal..

NS-PBL is one of the e-learning portal that will allow you to experience problem based learning method online.
For this study, we have choosed Network Security, a subtopic of Information Technology Security.



What is NS-PBL?

What is Online PBL? What is PBL?

This text zone is displayed to each user. Platform administrator can change its content or remove it by editing the textzone_right.inc.html file.

[Edit text zone](#)

Course Page

ITQuest Portal

[Nurhazirah Mohd Bakri](#) : [My course list](#) | [My calendar](#) | [My User Account](#) | [Platform Administration](#) | [Logout](#)

Network Security Online PBL (PSS 1)
Course Home

NSOP0001 - Nurhazirah bt Mohd Bakri
 View mode : [Student](#) | [Course manager](#)

[ITQuest Portal](#) > [NSOP0001](#)

Course description

Agenda

Announcements

Documents and Links

Exercises

Learning Path

Assignments

Forums

Groups

Users

Chat

Wiki

Edit Tool list

Course settings

Statistics

You are on the course home page.

On this page, you can :

- activate or deactivate tools (click on the 'Edit Tool list' button at bottom left)
- change settings or view statistics (click on corresponding links at bottom)

Now, to add an introduction text presenting your course to students, click on this button

Add Text

Problem Scenario

ITQuest Portal

[Nurhazirah Mohd Bakri](#) : [My course list](#) | [My calendar](#) | [My User Account](#) | [Platform Administration](#) | [Logout](#)

Network Security Online PBL (PSS 1)
Assignments

NSOP0001 - Nurhazirah bt Mohd Bakri
 View mode : [Student](#) | [Course manager](#)

[ITQuest Portal](#) > [NSOP0001](#) > [Assignments](#) > [Assignment](#)

► **Assignment**

Problem Scenario 1

Title : Problem Scenario 1

From May 26, 2010 at 02:35 PM until May 26, 2011 at 02:35 PM

Submission type : Text only (text required, no file)

Submission visibility : Only visible for teacher(s) and submitter(s)

Assignment type : Individual

Allow late upload : Users can submit after end date

Description

You have receive an email as below:

On 6/10/2009 11:24 AM, xxx@yahoo.com wrote:

Hi,

I'm new to IDS/IPS...

Suppose a company has a large network, which is divided into several sub-network segments. Due to finance or staffs restrictions, the company could only use a limited number of sensors, hence leave some internal sub-networks unmonitored. I guess this is quite common in real world right?

So, if I were an inside attacker, I may find out sensor locations (either physical or logical locations) by fingerprinting the sensors as discussed in some previous threads or whatever tricks. Means I will know which sub-networks are monitored and others are not, right? So that I can launch attacks to those unmonitored network segments without being detected.

Group Forum: Individual Research

ITQuest Portal

Nurhazirah Mohd Bakri : My course list | My calendar | My User Account | Platform Administration | Logout

► Network Security Online PBL (PSS 1) Documents and Links

NSOP0001 - Nurhazirah bt Mohd Bakri

ITQuest Portal > NSOP0001 > Documents and Links View mode : Student | Course manage

► Documents and Links ?

Up |
 Search |
 Download current directory |
 Upload file |
 Create directory |
 Create hyperlink |
 Create Document

Name	Size	Date	Modify	Delete	Move	Visibility
Network_Security.url	330 Bytes	02.06.2010				
Online_Book_6_1.doc	533 KB	14.06.2010				
Online Book for Chapter 6 Subchapter 6.1 - Introduction to Network						
Online_Book_6_2.doc	43 KB	14.06.2010				
Online Book for Chapter 6 Subchapter 6.2 - Network Security						
Online_Book_6_3.doc	31.5 KB	14.06.2010				
Online Book for Chapter 6 Subchapter 6.3 - Network Security Threats						

Manager(s) for NSOP0001 : Nurhazirah bt Mohd Bakri Administrator for ITQuest Portal : nurhazirah mohd bakri

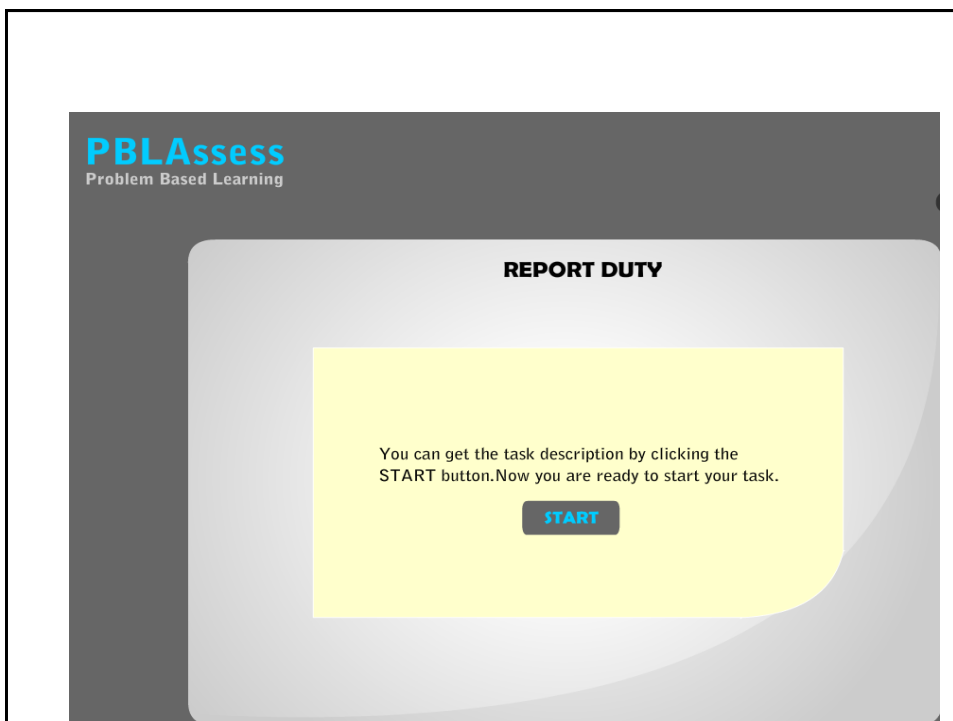
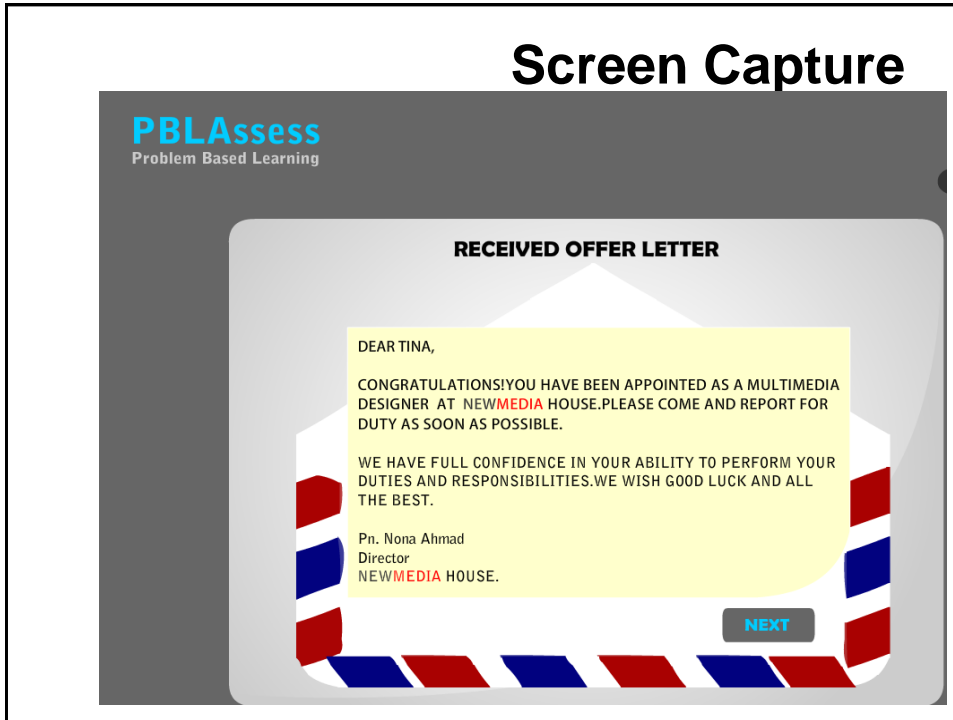
Powered by Claroline © 2001 - 2008

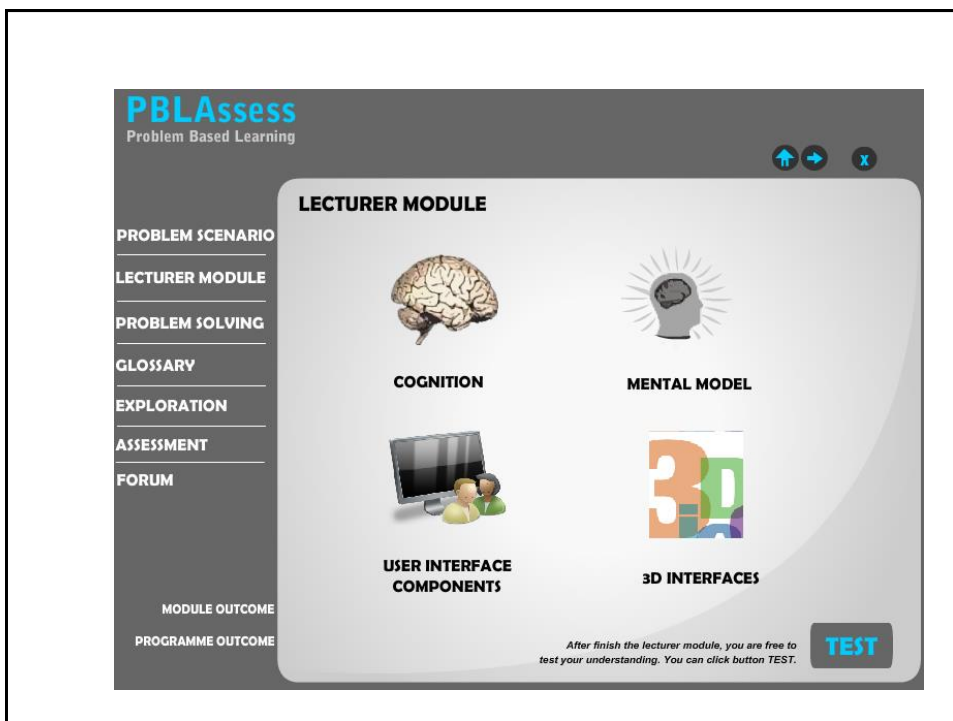
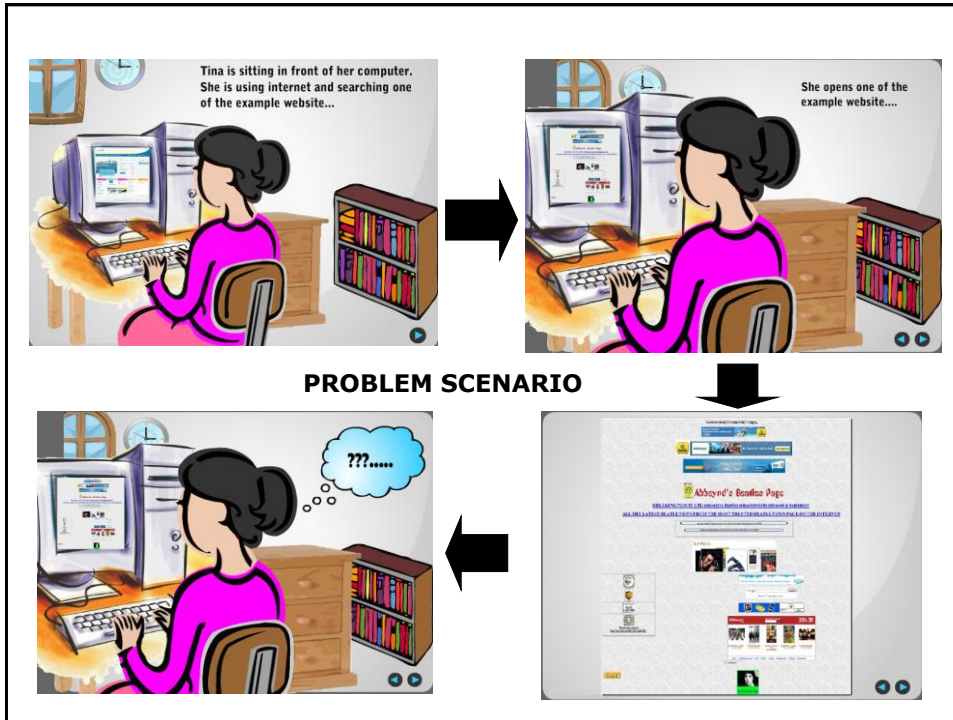
Development & Evaluation of PBL Assessment in Multimedia Environment (PBLAssess): Case Study at UTeM

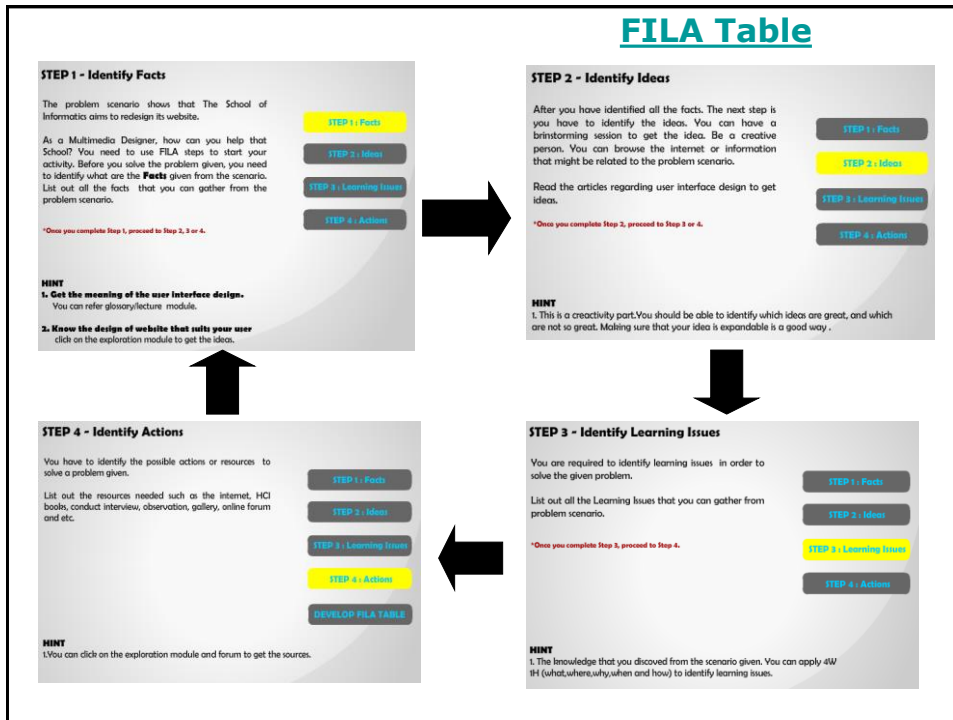
Student:
Che Ku Nuraini Che Ku Mohd (graduated)

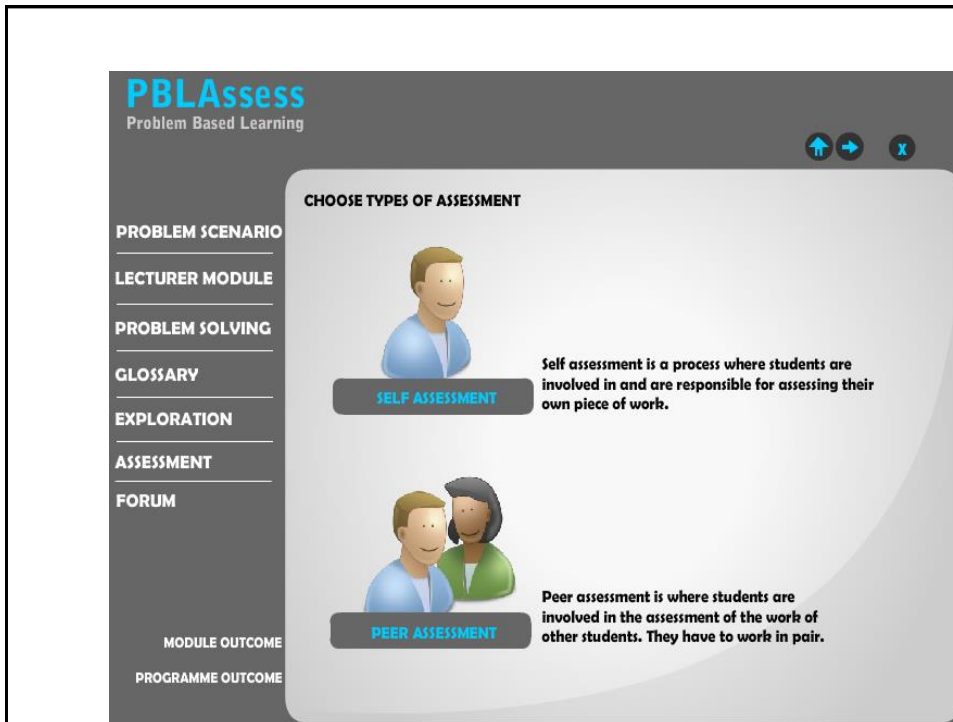
Supervisor:
1.Assoc Prof Dr. Faaizah Shahbodin
2.En.Haziq Lim Abdullah

Screen Capture



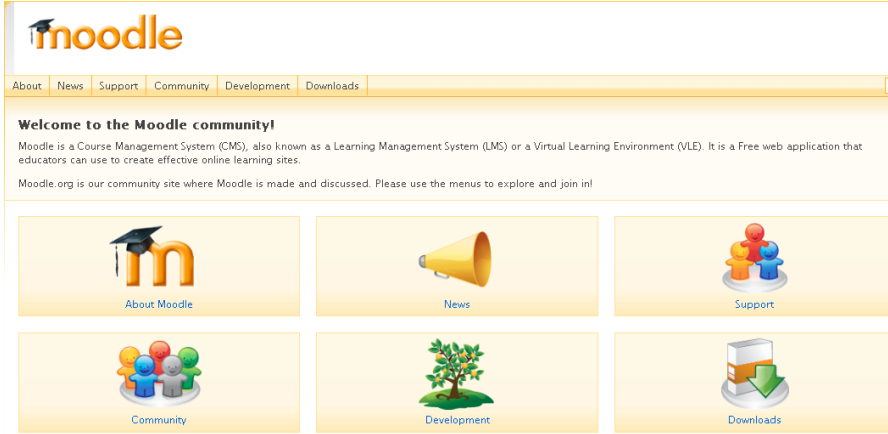






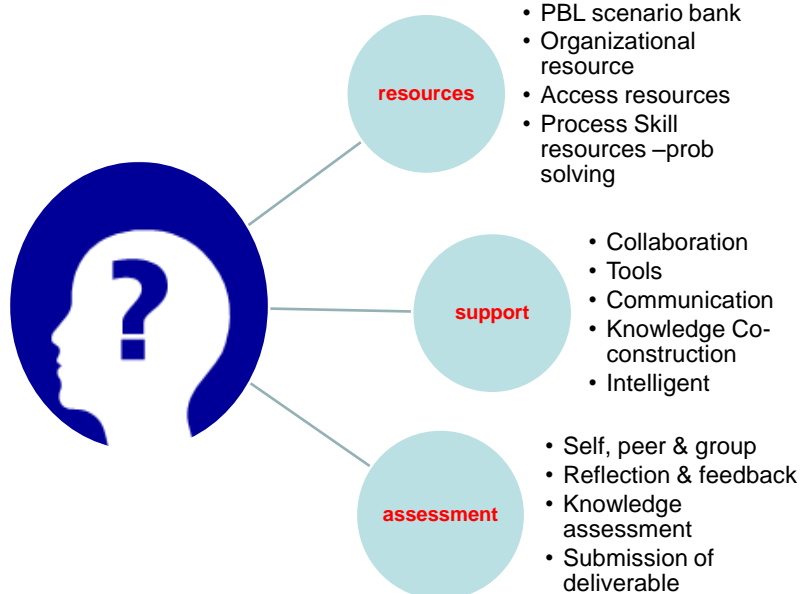
Example forum

<http://moodle.org/mod/forum/>

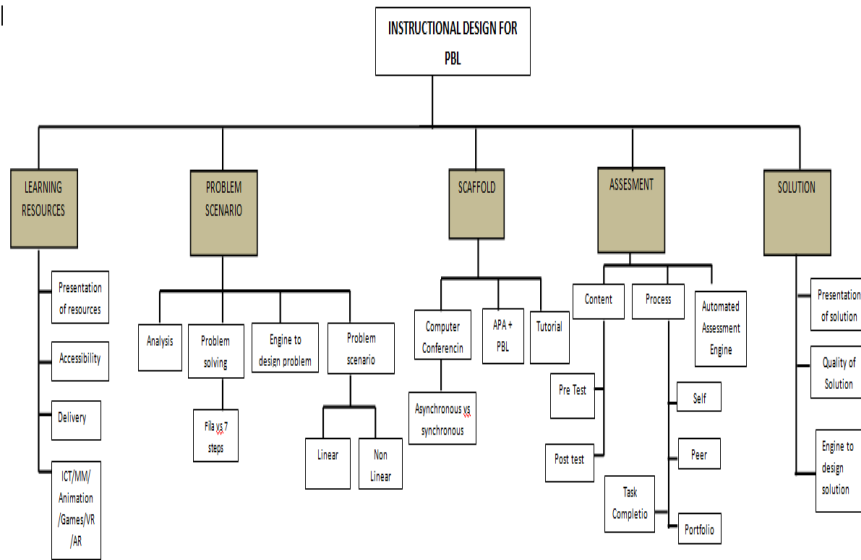


Moodle is a Course Management System (CMS), also known as a Learning Management System (LMS) or a Virtual Learning Environment (VLE). It is a Free web application that educators can use to create effective online learning sites.

Issues and challenges



Future research

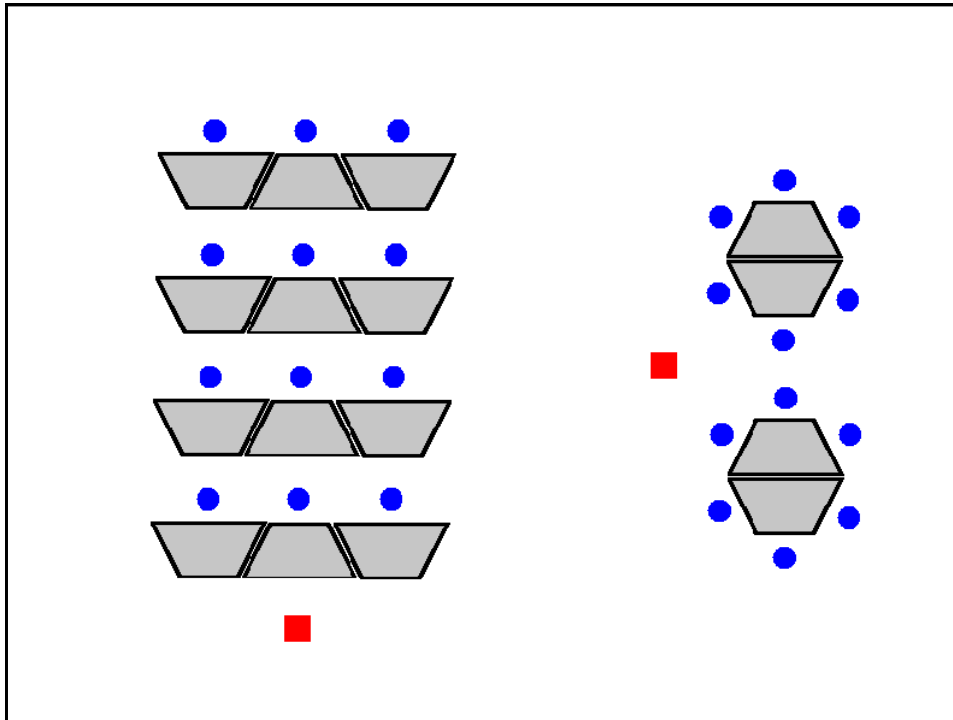


PBL Classroom

Collaborative workspace



Flexible furniture in PBL classroom



2 B PAPER

NURUL AQILAH BT. AZMI
B030910024

BEST:

- the importance thing should apply in Project Management = have more clear idea about that.
- all the position in a project management.
- the process during the project development $\left\{ \begin{array}{l} \text{pre-production} \\ \text{production} \\ \text{post production} \end{array} \right.$
- importance of WBS.

BLURP:

- ∴ the word deliverable : poorly defined deliverable.

MUHAMMAD RIZQAH BT HARI

B 030910084

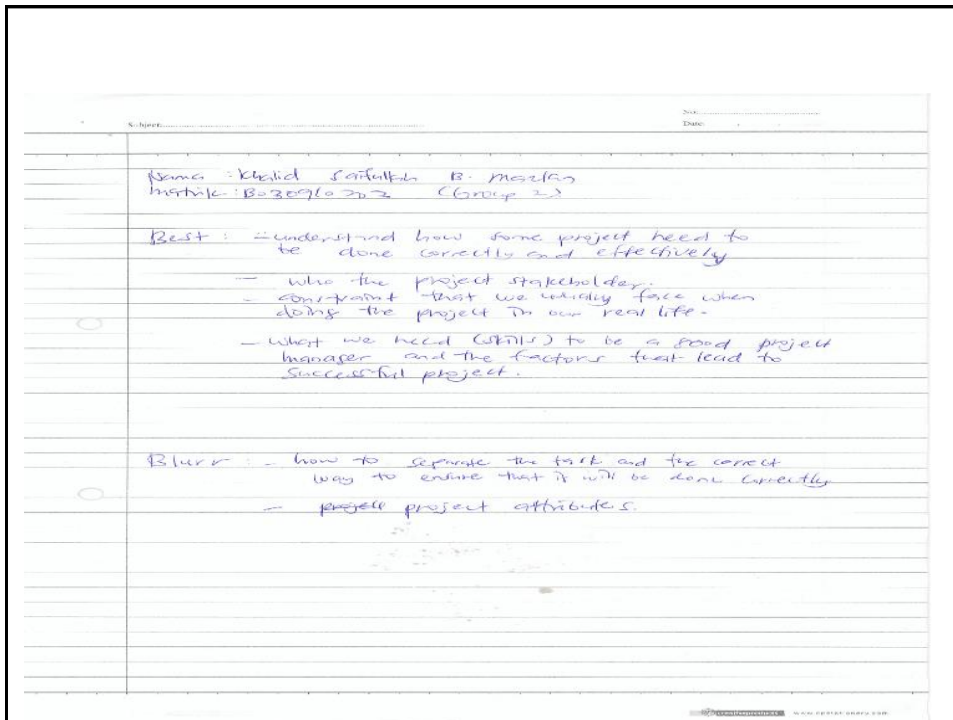
BEST :-

- ① presentation jelas especially further explanation from Dr.
- ② what the project is.
- ③ clearly understand the risk that we have to face
in if we are conducting a project.
- ④ we understand about the ~~scope~~ influences if something
the Iron Triangle (Scope, Cost, time) if we changing one
of them.
- ⑤ clearly defined the attributes of the project.

BLUR :-

- ① how to manage risk.
- ② what is the best solution that we have to
take if we have any problem - every problem have different solution.
- ③ How to have effective communication with the customer.

Subject	No. (Date)
MUHAMMAD RIZQAH BT HARI B 030910084	
BEST :	
<ul style="list-style-type: none"> * Work Breakdown Structure (WBS) * Project preview * Project Attributes * Triple Constraint * Project Manager * Key of project success 	
BLUR :	
<ul style="list-style-type: none"> * Quality degradation (Impact of project failure) * Negative media campaign (Impact of project failure) * Inaccurate estimate (Reason of project failure) 	



Persidangan 'National Conference On Active Learning' UTeM

Tingkatkan Kualiti Pendidikan Negara

Oleh ROSLAN MOHAMAD



DURIAN TUNGGAL, 4 Dis - Kaedah 'Active Learning' merupakan satu pendekatan yang perlu dipraktikkan dalam konsep pembelajaran dalam usaha meningkatkan lagi kualiti dan pencapaian bidang pendidikan dalam negara.

Bagi melebarkan lagi perbincangan dalam kaedah ini, pihak Universiti Teknikal Malaysia Melaka (UTeM) menerusi Pusat Pengajaran dan Pembelajaran (PPP) telah mengambil inisiatif ini dengan menganjurkan "National Conference on Active Learning" (NCAL 2011).

Persidangan bakal

menemukan beberapa tokoh ternama bidang pendidikan seluruh negara yang akan berkumpul di sini. Persidangan ini bakal berlangsung bermula 10 hingga 11 Disember 2011.

Menurut Pengarah Program, Dr Syed Najmuddin Syed Hassan, antara objektif utama pengajuran, persidangan ini penting selaras dengan inisiatif membudayakan pembelajaran secara aktif (active learning) di semua institusi pengajian tinggi (IPT)



Ahli jawatankuasa NCAL 2011 dalam satu sesi lawatan ke salah sebuah universiti di Singapura yang menjalankan teknik pembelajaran secara aktif

terutama di UTeM.

Katanya, seramai 150 peserta dan pembentang akan berada di Melaka selama dua hari bagi merealisasikan

matlamat UTeM melaksanakan pengalaman pembelajaran yang unik dan pembelajaran berasaskan hasil (OBE).

Antara pengisian persidangan ini ialah pembentangan empat ucaptama dan tiga bengkel berasaskan pembelajaran. Di samping

itu, beberapa acara menarik turut dirancang dan bakal dilaksanakan bagi memertikan lagi persidangan berkenaan.

"Pihak UTeM menjanjikan pengajuran terbaik dan mampu memberi impak besar dalam kaedah pembelajaran secara aktif ini dalam sektor pendidikan negara di peringkat nasional," katanya di sini.

Sehubungan itu, orang ramai terutama sektor negeri Melaka dijemput hadir bersama mengikuti persidangan ini kerana program ini menjanjikan manfaat besar dan mampu menghasilkan anjakan dalam pelaksanaan konsep pembelajaran secara aktif.

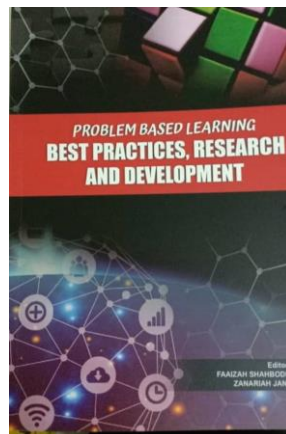
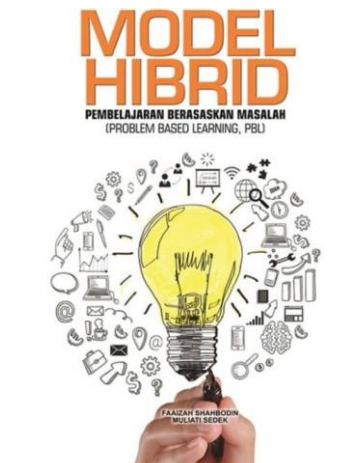
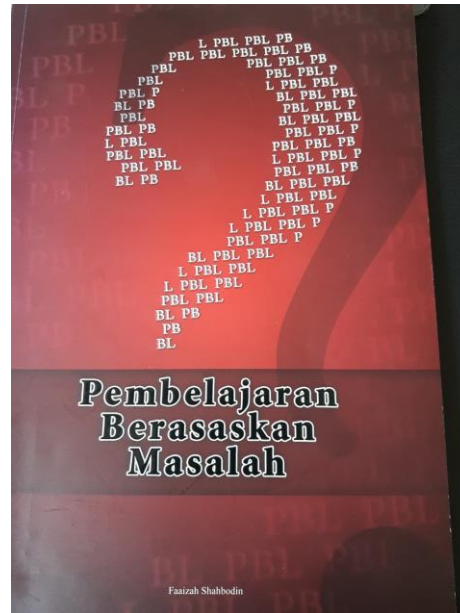
Summary

- Five main area PBL + ICT: planning, gathering, organising, presenting, assessment
- ICT and PBL can be combined depending on study focus, participants, nature of technique and available resources
- University agenda – PBL and OBE
- PPP effort
- Blended learning

AAU Kategori Pengajaran – Inovasi PBL



**Buku PBL
terbitan Penerbit UTeM**





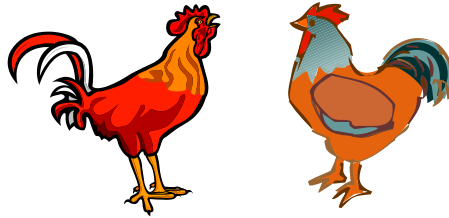
***Give someone a fish
you feed him for a day;***



***Teach him how to fish
and you feed him a lifetime.***

THE END
Q & A

Ayam Hutan, Ayam Selasih



Sekian Terima Kasih

faaizah@utem.edu.my



Malaysian Association of Problem Based Learning (MyPBL)



Tagline:
PBL DRIVES TEACHING AND LEARNING



Rujukan

- Gagne, R.M., (1970) *Conditions of Learning*, Holt, Rinehart and Winston Publication, 1970
- Woolfolk, A.E. and Nicolich, L.M., (1980) *Educational Psychology for Teachers*, Englewood Cliff, NJ, Prentice-Hall