Preparation for Myanmar Engineering Council Accreditation Course Detailed Course Teaching Plans & Summary of Notes --- Prepared by Dr Kyaw Naing

This teaching plan and summary of notes are developed in connection with the DVD containing the electronic textbooks, readers and accreditation and evaluation work samples that are to be distributed to the participants. This plan provides the summary of the course notes and study guide for the training.

Day 1 Session 3

Highlighting 9.2.1 General Information (MEng C)

9.2.2 Programme Objectives

& writing the objectives of the course by Dr Kyaw Naing

Step 1-Provide General Outline

Reference Reading (Education theory)

ED 106 Interpreting Curriculums

http://www.filefactory.com/file/1h141zxbov8z/ED%20106%20Interpreting%20Curriculums.zip

Page Number---

ED 106 Interpreting Curriculums/CURRICULUM DESIGN AND DEVELOPMENT-1.pdf

Slide 5, 2, 34, 40, 41,45,46,47,49,50,51,55,81

Practical Information

Provide the examples of how to set up the program objectives for Professional Engineer, Engineering Technologists and Engineering Associates levels

www.highlightcomputer.com/OverallProgramGeneral.pdf

Step 2-Provide PE / Eng Technologist Requirement

www.highlightcomputer.com/engineersaustraliareferences.htm

130607_stage_1_pe_2013_approved.pdf

Page 2 explain details

Then show page 1 & 3 -6

REFER DETAILED-EngineeringJobCompetencies.pdf

Step 3-Link to practical program outcome design

SAMPLE

Page 5/6 of OverallProgramGeneral.pdf

www.highlightcomputer.com/OverallProgramGeneral.pdf

References

Engineers Australia References

www.highlightcomputer.com/engineersaustraliareferences.htm

Stage 1 Competencies of PEng, Eng Technologists & Eng Associates

Engineering job competencies

http://www.highlightcomputer.com/EngineeringJobCompetencies.pdf

Participants' tasks

Write the course objectives of the engineering programs that they are teaching, discussion & feedback

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Day 2 Session 2

Competency based education & training & how the competency based training is important to reach the desired outcome

By Dr Kyaw Naing

References

Characteristics of Learning Outcomes

In Certificate I to Vocational Diploma

http://www.filefactory.com/file/32hy8l1za8wz/TAE10_R3.4.docm

Page 36 to 41

Provide the level of performances of the students tasks in the curriculums & activities

Sample Curriculums

Certificate to Advanced Diploma

http://www.highlightcomputer.com/detailedcontent.htm

Bachelor degrees equivalent level

http://highlightcomputer.com/B%20E+B%20App%20Sc(IT)+B%20Bus%20Course%20Detailed%20Contents.htm

Step 1-Provide General Outline

AGTI

- demonstrate understanding of specialised knowledge with depth in some areas
- analyse, diagnose, design and execute judgements across a broad range of technical or management functions
- generate ideas through the analysis of information and concepts at an abstract level
- demonstrate a command of wide-ranging, highly specialised technical, creative or conceptual skills
- demonstrate accountability for personal outputs within broad parameters

BTech

- The self-directed development and achievement of broad and specialised areas of knowledge and skills, building on prior knowledge and skills.
- Substantial breadth and complexity involving the initiation, analysis, design, planning, execution and evaluation of technical and management functions in highly varied and highly specialised contexts.
- Applications involve making significant, high-level, independent judgements in major broad or planning, design, operational, technical and management functions in highly varied and specialised contexts. They may include responsibility and broad-ranging accountability for the structure, management and output of the work or functions of others.
- The degree of emphasis on breadth, as opposed to depth, of knowledge and skills may vary between qualifications granted at this level.

BE

- The self-directed development and achievement of broad and specialised areas of knowledge and skills, building on prior knowledge and skills.
- Substantial breadth, depth and complexity involving the initiation, analysis, design, planning, execution and evaluation of major functions, both broad and highly specialised, in highly varied and highly specialised contexts.
- Further specialisation within a systematic and coherent body of knowledge.
- Applications involve making high-level, fully independent, complex judgements in broad planning, design, operational, technical and management functions in highly varied and highly specialised contexts. They may include full responsibility and accountability for all aspects of work and functions of others, including planning, budgeting and strategy development.
- The degree of emphasis on breadth, as opposed to depth, of knowledge and skills may vary between qualifications granted at this level.

Step 2 Objective is required for the designed course

Why we need to do this thing?

Principle of Adult Learning—

Motivation/ Reason/ Needs/Desires/ Benefit

Sample Objectives

Advanced Diploma in Engineering (Electrical+ Mechanical+ Civil+ Renewable Energy Engineering+ Computer Engineering & Information Technology) Course Outlines

IQY Technical College's two years Advanced Diploma in Engineering is designed to train the students to work as Engineering Technologist in wide ranges of industries.

It is designed to provide the following competencies.

To train the students to operate within broadly-defined technical environments, and undertake a wide range of functions and responsibilities. They are often specialists in the theory and practice of aparticular branch of engineering technology or engineering-related technology

Professional Diploma in Engineering (Electrical+ Mechanical+ Civil+ Renewable Energy Engineering+ Computer Engineering & Information Technology) Course Outlines

IQY Technical College's four years Professional Diploma in Engineering is designed to train the students to work as Engineering Technologist /Professional Engineer in wide ranges of industries.

The program is designed to train the students to become Professional Engineers who are required to take responsibility for engineering projects and programs in the most far-reaching sense.

Provide examples of objectives

Objectives/ folder

Objective for each lesson materials

Example

801A-Teaching & Learning in Adulthood Tasks Samples/document 11,

/Document 22 TVET801A 3.4.doc---Page 4 to 8 then expand Page 9 to 12 Read.

Step 3-Link to practical program contents design

Detailed Contents examples are provided

Folder/ Detailed Contents/

Day 3 Session 1

Day 4 Session 1

9.2.3 Learning Outcomes

Requirement of Myanmar Engineering Council

& how to design the curriculum to address the learning outcomes

By Dr Kyaw Naing

Educational Theoretical Readings

ED 104 Lesson Planning

http://www.filefactory.com/file/4m30ym0ez37r/ED%20104%20Lesson%20Planning.zip

ED 202 Curriculum & Design

http://www.filefactory.com/file/1jotv5d428j1/ED%20202%20Curriculum%20%26amp%3B%20Design.Zip

Practical Example

www.highlightcomputer.com/OverallProgramGeneral.pdf

Page 13 to 21

ED 104 Lesson Planning

http://www.filefactory.com/file/4m30ym0ez37r/ED%20104%20Lesson%20Planning.zip

Step 1 Review the educational theory related to lesson planning

ED 104 Lesson Planning/ Lesson Planning.pdf

Pupils have two kinds of needs. First, there are the general ones that provide the preconditions for education the need for such things as security, comfort and dignity.

Second, there are learning needs - provision for special educational needs such as dyslexia, for example, or remedial action to help pupils make good any gaps in their knowledge from earlier parts of the curriculum.

10

This is an idea I hit on when learning to teach adult classes and then used with (quite senior) classes in school at the beginning of their courses. Make a numbered list of the aims that pupils might have for the course you are teaching them.
For example:

1 Achieve a qualification.
2 Get the best grade at the end of the course.
3 Progress to a further course.
4 Muddle through.
5 Find out more about [a specified area of the subject].
6 have no specific aims.

OBJECTIVES

Objectives are based on the notion that education is observable and measurable

LEARNING

o Which parts of your lessons lend themselves to thinking in terms of stimulus and response?
o Where do assessment criteria require only certain *outcomes* rather than levels of *understanding*

1 Knowledge and understanding.
2 Skills, techniques, and methods (Idea 21).
3 Attitudes and perspectives (Idea 22). ^
4 Judgements and decisions (Idea 23).

attitude

12Here is a checklist of the qualities an objective
Specific in terms of
(a) what is to be learnt and
(b) the time within which it is to be learnt;

Capable of assessment;
Achievable;
Manageable in the context you are working in.

55

1 T A ' oi
1 Introduction.
2 Exposition. ,
3 Clarification.
4 Enactment.
5 Feedback.
6 Transfer
7 Deliberate practice.

There are four main types of practice:

56

1 Drills.
2 Variable practice.
3 Massed practice.
4 Distributed practice.

57

1 Introduction.
2 Presentation.
3 Conclusion

When preparing a PowerPoint presentation, use the following checklist to help avoid the most common pitfalls:

Are any of the slides too cramped? Can I reduce the amount of information on each slide?

When do I need to ask the class to focus on the screen?

When do I want them to focus on me as speaker?

How can I use body language or audience interaction to encourage this?

How can I vary my speaking position in order to establish eye contact and rapport?

When should I turn off the display?

25

Theoretical Learning

o theory and generalization;
o the concrete and the particular (see Idea 26); ^
o reflection (see Idea 27); 21
0 activity - 'learning by doing' (see Idea 28).

26

Learning from concrete

25). In place of generalizations, axioms, probabilistic statements and deductive logic

Use one both of the two great staples of concrete learning - the worked example and the case study

27

Reflective Learning

The first is by encouraging pupils to reflect on aspects of their life in general - things that they have learnt beforehand, whether in or out of school.

The second is by encouraging pupils to reflect on what they have already learnt or experienced within the scheme of work that you are now engaged in appropriate for work experienced learners.

28

Active Learning

Active learning can feature in your planning in two places. Sometimes you can arrange for active learning within your lessons - drama, role-play, observation, conducting surveys, filming, and so on. Sometimes you can build it into the homeworks that you set, such as interviewing, researching and mini fieldwork projects

General learning strategies - techniques, habits of mind, and so on, not related to specific subjects or topics.

Contiguous knowledge - knowledge closely associated with that you are planning to teach.

For a pupil learning about a certain theme in a certain period of history, examples would include knowledge of other themes in that period.
Comparable knowledge - knowledge of a different 2 topic that is sufficiently similar for analogies to be drawn. For example, in technology a pupil might learn about the qualities of one material by comparing it to other materials.

Top-down' knowledge - pupils who have learnt about a general concept (e.g. deforestation) proceed to learn about particular instances (e.g. Amazonia).

'Bottom-up' knowledge - pupils who have learnt about particular cases proceed to learn about the general concepts, issues or themes that they exemplify.

Step 2 Provide the lesson plan format

ED 104 Lesson Planning/ Instructional Design for Action Learning.pdf

Lesson Plan Format

Phase One:
Develop the following:
? Training content
? Graphics
? Media needs
? Lesson plans
? Instructor guides
? Evaluation needs
? Software needs

Phase Two:

Revise all items in Phase One.

Phase Three:

Complete the following.
? Conduct the test.
? Revise the program on the basis of the test.
? Schedule a second test, if needed.

TITLE: How to use the bundling machine

WRITTEN BY: Author's

Note DATE: Date Written

OBJECTIVES: At the end of this session, the participants will be able to

1. State one reason for using the bundling machine
2. Demonstrate the correct use of the bundling machine
located in the workshop

3. State when the bundling machine is used

SESSION TIME: 15 minutes

NUMBER OF PARTICIPANTS: 6 (up to 10)

ENTRY LEVEL: New employees

AIDS/EQUIPMENT: Sample bundling machine

6 bundling cards for each participant
Whiteboard and markers

POTENTIAL FAULTS: Session not to be conducted at start or finish time of workshop

METHOD: Show and tell

Phase Four:

Conduct the following.
? Pilot-test a prototype program.
? Evaluate the pilot test.
? Identify the required revisions.

Revise the program as required (on the basis of the pilot test).
? Schedule another test, if needed.

Phase Five: Follow-through on the following.

? Finalize the training program content.
? Produce the training program in final form.

During the development phase, you will select, write, or otherwise obtain all training documentation and evaluation materials. These may include the following:

? Training materials
? Instructor guide (including lesson plans and a list of required supporting materials)
? Learners' guide or workbook
? Nonprint media (computer software, audiotapes and videotapes, equipment checklists)
? Program evaluation materials
? Procedures for evaluation
? Supervisors' form for evaluation of course participants' post-training job performance
? Training documentation
? Class attendance forms and other records for participants
? Course documentation (written objectives, authorship and responsibility for course material, lists of instructors and facilitators, and their qualifications)

Step 3 Expand the each lesson plan to unit in the curriculum

ED 202 Curriculum & Design/ Curriculum.pdf

6.1 Frame of Reference
The rapid progress of globalization has led to many unprecedented changes in the world in which students are educated and in which graduates will practice (Friedman, 2006). As Friedman puts it, "Globalization has collapsed time and distance and raised the notion that someone anywhere on earth can do your job more cheaply.

In 2004, the National Academy of Engineering published a report summarizing visions of what the engineering profession might be like in the year 2020 (National Academy of Engineering, 2004). A follow-up report (National Academy of Engineering, 2005) on how to educate the engineer of 2020 was released a year later.

The key message gleaned is that engineering education must be adapted to the challenges of globalization.

Course and curriculum redesign must better address and constructively align “what” is to be learned and “why” those target outcomes are needed.

Then, building on the “what” and “why”, it should present clearly the “how” or strategies used to achieve them. We know that current engineering students will be tomorrow’s engineering workforce and that they will have to face and address challenges and dilemmas that are very different from the problems and tasks they were exposed to as students.

The nature of those challenges will require them to take on open-ended ill-defi ned problems and unforeseen issues, understand system-level challenges, and respond to them with innovations.

If they have not experienced creative challenges that require innovative responses in their engineering classes, they will not be prepared to do so in their professional careers.

The “how” of developing this type of skills and expertise in analysis, evaluation, and creative production for unforeseen needs requires authentic experience in tasks that require students to exercise these skills.

There are various ways to provide practice in creative problem-solving and innovation.

One way to provide this experience is experiential learning. If designed well, experiential learning not only offers authentic opportunity but also supports self-determined motivation and regulation.

Further, it can be structured to enable adaptive interaction among those with various types of expertise, sharing in a professional community, and experience building both competence and community.

This involves balancing structure and autonomy, supporting both team and individual effort, and valuing error that leads to deeper learning and skill refi nement. Related to these outcomes is the power of metacognition, refl ection on task process and products, both during and after experiences.

Metacognition is directly linked to the process skills of analysis and evaluation and, within a discipline, divides legitimately creative experts from those whose skills are limited to doing the same thing, albeit doing it well, over and over again (Ericsson, 2006).

Curriculum Development

- **Needs of engineering workforce**
- **Appropriate to changing needs of industry & technology**
- **National guidelines**
- **Relevant & related to & based on and past & current curriculums**

- **Based on accumulation of lesson planning for each lesson, each unit in the curriculum**
- **Concern the interrelation of the contents**
- **Develop on skills level & performance standards—Outcome based/ Competency based/ Adult Education/ Vocational Education & Training**

Step 4 Provide the practical example of a curriculum which is developed based on MEng C requirements

Myanmar Engineering Council

9.2.3 Learning Outcomes

I List down the Learning Outcomes and state where are they published

Show Page 13+14 of OverallProgramGeneral.pdf

Practical Example

www.highlightcomputer.com/OverallProgramGeneral.pdf

Myanmar Engineering Council

Ii how the Learning Outcomes relate to the Programme Objectives.

Page 20 Show the table & explain it. Page 20+21

Then show Page 28-30--- BE (Electrical)

Then show Page 35-37--- BE (Civil)

Then show Page 41-43--- BE (Mechanical)

iii. Describe the processes used to establish and review the Learning Outcomes, and the extent to which the programme's various stakeholders are involved in these processes. (Myanmar Engineering Council)

- Explain the contents in
  Detailed Course Teaching Plans/TAEASS502B Folder

iV Describe the data gathered and explain the results of the assessment. (Myanmar Engineering Council)

Analysis of Assessment

- Explain the contents in
  Detailed Course Teaching Plans/ analysis of assessment records

v Explain how the assessment results are applied to further develop and improve the programme. (Myanmar Engineering Council)

- Explain the contents in
  Detailed Course Teaching Plans/ how improvements were made to assessment and or recognition processes

Individual Teachers Reflection---

- Self Assessment Journal Reflection.doc

- Collection of Teachers' Reflection by Head of Department

vi. Describe the materials, including student work and other tangible materials that demonstrate (Myanmar Engineering Council)

- Page 23+24 of **OverallProgramGeneral.pdf**
- Online mode of learning materials
- In DVD, CD etc

Processes and Results: (MEng C) The programme shall have a clear linkage between Programme Objectives and Learning Outcomes (Section 4.0); a process of ongoing assessment an evaluation that demonstrates the achievement of Programme Objectives with documented results; and evaluation results that are used in the continual improvement of the programme. (Myanmar Engineering Council)

Professional Diploma

Year 2+3 Learning Outcomes & Teaching /Assessment Strategies Page 49 to 52of OverallProgramGeneral.pdf

- Then provide the example Page 61 to 63-BE (Electrical)
- Then provide the example Page 67 to 69-BE (Civil)
- Then provide the example Page 74 to 76-BE (Mechanical)

(Myanmar Engineering Council)

- the choice of the teaching-learning (delivery) methods.
- The curricular approach, the educational content and the teaching-learning
- assessment & evaluation methods for the attainment achievement of the Learning Outcomes.

- Explain the contents in
  Detailed Course Teaching Plans/course delivery documentation

- Assessment
- Assessment Validation
- Continuous Improvement Register
- Delivery and Assessment Schedule
- eScope Application
- Industry Consultation
- MOU
- OTHER
- Physical Resources
- TAS

(Myanmar Engineering Council)

A balanced curriculum shall include all technical and non-technical attributes listed in the Learning Outcomes, (the essential elements forming the core of the programme and additional specialist or optional studies (electives). (MEng C)

⍰ The curriculum shall integrate theory with practice through adequate exposure to laboratory work and professional engineering(MEng C)

⍰ Time allocation

⍰ Credit points (The academic programme component must consist of a minimum total of 120 credit (a) A minimum of 80 credit hours shall be engineering courses consisting of engineering sciences and engineering design/projects appropriate to the student's field of study. (MEng C)

(b) The remaining credit hours shall include sufficient content of general education component (such as mathematics, computing, languages, general studies, co- curriculum, management, law, accountancy, ec(MEng C)

Provide samples—Page 77 to 86 of OverallProgramGeneral.pdf

- To be download from internet or Day 7 Session 3 contents (USB)

- Day 4 Session 1

Academic Curriculum

(curriculum design)the philosophy and approach adopted in the programme structure (Myanmar Engineering Council)

Step 1 Provide the philosophy & approachrelated to VET & Competency Based Training

Provide- Page 43 to 46 of OverallProgramGeneral.pdf

+

Page 47 to 52 of OverallProgramGeneral.pdf

Step 2 Provide the examples

- To be download from internet or Day 7 Session 3 contents (USB)

Day 4 Session 2

Show & Explain the contents in session Day 4 Session 2 folder

Depending on the academic discipline of the participants, the relevant training packages are to be demonstrate.

General Knowledge related to overseas programs

By Dr Kyaw Naing

Vocational Education Teacher Education

http://www.filefactory.com/file/4yb11lp1x9b/n/Vocatinal_Education_Teacher_Education_pdf

Sample Training Packages

Day 5 Session 1

Approach to various learning modes in VET

Myanmar Engineering Council References

- the choice of the teaching-learning (delivery) methods.
- A balanced curriculum
- The curriculum shall integrate theory with practice through adequate exposure to laboratory work and professional engineering(MEng C)
- Time allocation
- Credit points

Group Base learning.pdf

Ref - 16.taadel401a Plan & Organize Group Base learning.pdf

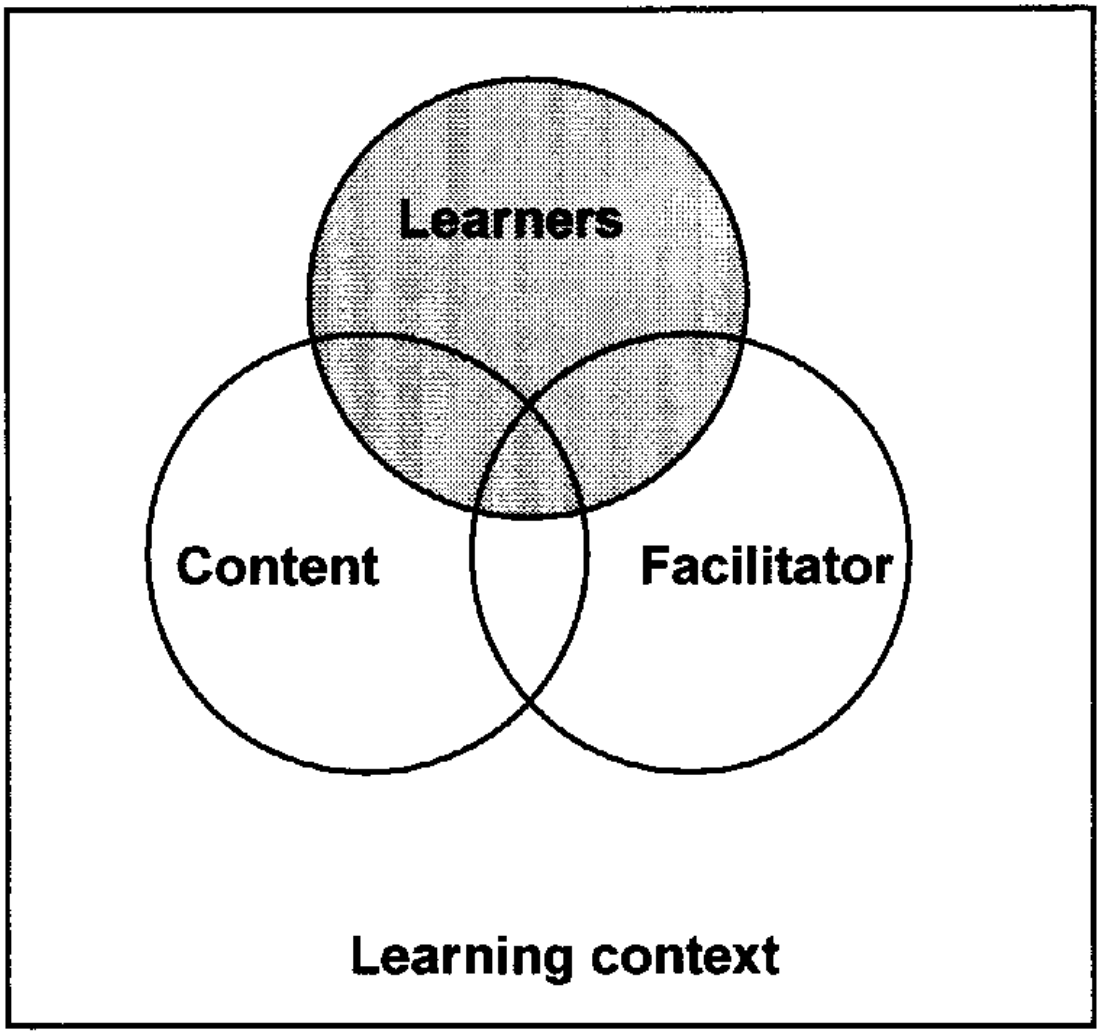
First of all, what is learning? Learning is a personal process, which occurs internally. Learning can involve:

- growth of knowledge
- development of skills
- change of attributes.

Models, like myths and metaphors, help us to make sense of information. A model can offer the means for understanding an otherwise incomprehensible problem. Models can provide structure and meaning; they often help us to visualise a concept or problem, breaking it down into discrete and manageable parts. As such, models are very useful in learning.

Facilitating learning

When it comes to facilitating learning, there are three things the facilitator need to manage: the learners, the content and themselves. These need to be considered separately and collectively and managed in the context of the learning environment. In the beginning, it can feel a bit like running a three-ring circus! As you can imagine, undertaking such a process also requires considerable preparation to make sure that everything goes smoothly. Armed with a clear plan, an understanding of how people learn, and an increased awareness of the part you play, you will be well on the way to being a success.



Knowles' andragogical model of learning

The need to know

Adults need to know why they are learning something before undertaking to learn it. When adults undertake to learn something on their own, they invest considerable energy determining the benefits they will gain from learning it and the negative consequences of not learning it. Consequently, one of the first tasks of the facilitator of learning is to help the learners become aware of the 'need to know'.

The role of learners' experience

Adults have a variety of life experience that represents a rich resource for learning. To capitalise on adult learners' experience, facilitators can use techniques that tap into these—group discussion, storytelling, simulation exercises, problem-solving activities, case studies and other interactive strategies. While the richness of experience is a valuable resource for learning, can also present some challenges, as these experiences can be filled with bias and presupposition which may impact on our perceptions.

Readiness to learn

Adults are ready to learn those things they need to know and do, in order to cope effectively with their real life situations. 'Readiness to learn' occurs strongly when adults move from one developmental stage to the next. Timing learning experiences to coincide with those developmental tasks is obviously important.

Orientation to learning

Adults are motivated to learn something to the extent that they perceive that it will help them perform tasks or deal with problems that they are likely to encounter. They learn most effectively when learning is presented in the context of application to real life situations.

Motivation

While adults respond to some external motivators (better jobs, promotions, higher salaries etc), the most potent motivators are internal pressures (desire f increased job satisfaction, self-esteem, quality of life). Generally, adults are motivated to keep growing and developing, however, this motivation is often blocked by barriers such as a negative self-concept, especially as a student; inaccessibility of opportunities or resources; time constraints; and programs that do not meet the needs of adult learners.

Another way of looking at the principles of adult learning

The Australian National Training Authority (ANTA) provided a number of principles of adult learning in 1995, which were slightly modified in 1998. The following list is a compilation of both sets of principles.

Active participation

Adults learn best when they actively participate; that is, when they are involve physically, intellectually or emotionally. Adults learn best by 'doing'.

Meaningful and relevant

How does it relate to me? Adults need to be able to relate to the material—to identify the meaning and relevance of the material to them and their situation.

Holistic learning

Adults like to know where this material fits in relation to the whole. Starting with the big picture, then dropping down into the specific details, provides a context for the material.

Multi-sensory learning

We have five senses—why limit learning to one sense? Instead, use a range of senses: sight, sound, taste, smell and touch. Using two or three senses in the learning experience increases the learners' capacity to understand and to retain the material.

- Active Participation---Practical/ Work-based Learning
- Meaningful & Relevant—Curriculum & Resource Planning
- Holistic Learning—Career objective link to outcome 7 objective of the course , subjects/ units and detailed contents plans
- Multisensory Learning—e-Learning, face to face, Educational Multimedia

Practiced and reinforced

Learners require appropriate time and opportunities to practice and reflect on what they have learnt and apply this material to their workplace context. Practice opportunities need to be provided for developing knowledge and skills and changing attributes.

Regular and useful feedback

Learners like feedback; they want to know how well they are doing. Feedback provided early in the learning experience can mean that learners practice and reinforce the correct behaviours, rather than reinforce incorrect information or behaviours. Feedback needs to be provided in a positive and constructive manner. When providing feedback, concentrate on the action or the behaviour and not on the person.

Reward

Learners respond differently to learning experiences, yet they all need to be able to identify the benefits and value of the experience. These benefits act as a reward for the work learners have done and help motivate further learning. Sometimes it is also valuable to provide external recognition and reward. It is very motivating to be told you have done well and your efforts are recognised and appreciated.

Behavioural learning theory

Observable behaviour rather than internal thought processes are the focus; in particular, learning is shown by a change in behaviour. Four key principles are considered to be important. They are:

- learning is better when the learner is active, not passive
- frequent practice is necessary for learning
- positive reinforcements, like rewards and successes, are encouraged
- objectives need to be clear, for example, performance criteria found in units of competency.

Information processing theory

This theory uses the computer as a model for human learning. The human mind, like the computer, takes in information; changes the form and content of this information; stores and locates it; and generates responses to it. The approach to learning here is primarily through the use and study of memory.

Cognitive learning theory

This theory is based on the cognitive process we use to acquire knowledge, which includes knowledge gained through perception, intuition and reasoning The theory outlines an active mental process of acquiring, remembering and using knowledge.

Constructivist learning theory

This theory is based on the idea that learners construct knowledge for themselves. That is, each learner individually and socially constructs meaning as they learn. This then leads to a focus on the learner, rather than on the subje or the lesson to be taught, as it is the learner's thinking about the learning whic is the key to the learning taking place.

Learner/ students centred learning

- Teacher as facilitator—Provide tool, references, resources,
- Provide the students with the task.
- Ask them to do research themselves
- Present their work evidence portfolios
- Assess their work
- E-Learning is an effective way to provide a great deal of resources.

Situational approach to learning

The emphasis here is on learning being situation-based, that is, placed in a social context, like a workplace. Learning takes place through the relationships between people, and is based on the conditions that bring people together, allowing for particular pieces of information to take on relevance and meaning

Problem-based learning

This approach to learning recognises the need to develop problem-solving skil in order for learning to take place. The learning goals are the learners' abilities to solve the problem, present solutions and revise solutions when presented with additional information.

Project Design / Assessment

Further reading

Page 30 to 34 of Ref - 16.taadel401a Plan & Organize Group Base learning.pdf

Left hemisphere/Right hemisphere

Left Hemisphere Functions and Characteristics	Right Hemisphere Functions and Characteristics
Mathematical	Artistic
Verbal	Imaginative
Sequential	Random
Literal	Spatial
Logical	Holistic
Linear	Intuitive
Analytic	Synthesiser
Rational	Non-rational
Verbal	Non-verbal
Symbolic	Metaphoric
Abstract	Concrete
Temporal	Non-temporal

PART learning styles

Further reading

Page 36 to 37 of Ref - 16.taadel401a Plan & Organize Group Base learning.pdf

Global	Analytic
Big Picture	Deta
Inter-connection	Specif
Broad overall approach	Step by ste
Begin with the end in mind	Start at the beginnin

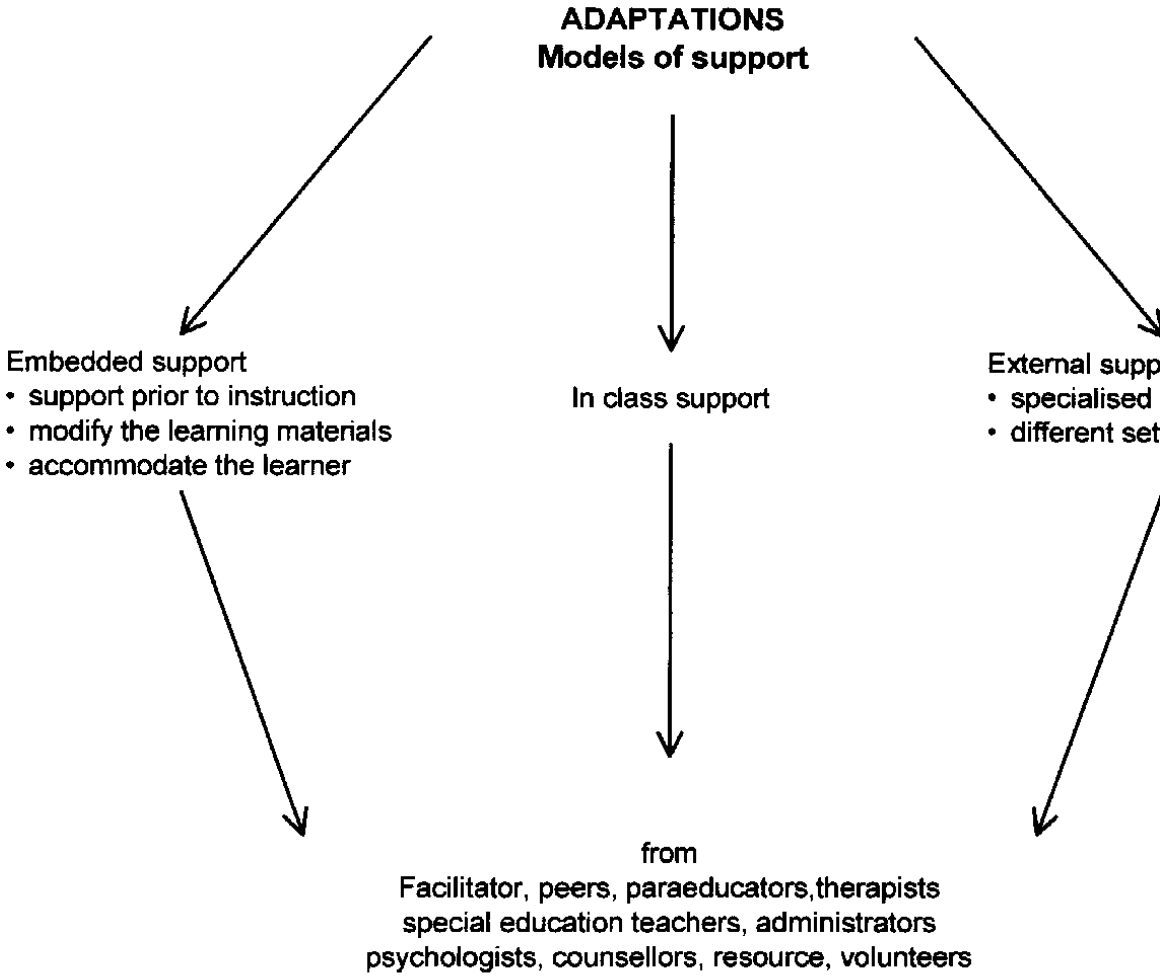
- your roles and responsibilities as the facilitator
- the learning context
- the learner program requirements
- who your learners are, what their needs and characteristics are, and how you might go about supporting them
- how to identify potential risks to learners
- other factors that should be considered when planning and organising group-based delivery.

Regulatory environment

Learning program requirements

Learners, their needs and characteristics

Before planning training, it is important to get a clear understanding of exactly who the learners are and what they need to gain from the program.


ADAPTATIONS
Models of support
Embedded support
• support prior to instruction
• modify the learning materials
• accommodate the learner
In class support
External supp
• specialised
• different set
from
Facilitator, peers, paraeducators,therapists
special education teachers, administrators
psychologists, counsellors, resource, volunteers

Modify the learning materials

- Incorporate techniques such as modelling, demonstrating, visual/diagrammatic representation, opportunities to practise skills, peer support and repetition.
- Build underpinning knowledge and skills using support materials.
- Tape sessions for learners unable to attend class.
- Provide resources in large print (this may just involve making activity cards in slightly larger font to make them more accessible).
- Use videos and audio tapes to offer variety.
- Post class notes on a website.
- Build in information about discrimination—the law, direct and indirect forms of discrimination.
- Use video conferencing facilities to access learners.
- Provide different instructional materials to meet a learner's individual goals.

Accommodate the learner

- Draw on a range of resources from first language, including peer support.
- Listen to problems and help within limits.
- Arrange the timetable so it caters for people who work or have family commitments.
- Provide flexibility in the timing of assessment tasks.
- Use adaptive technology.
- Modify the number of items that a learner is expected to learn or complete.
- Extend the time allowed for learning, task completion or testing.
- Increase the amount of personal assistance with a specific learner.
- Modify the way a learner can respond to instruction (verbal, written, hands-on).
- Vary the extent to which a learner is actively involved in a task.
- Adjust the goals or outcome expectations while using the same materials.
- Adapt the skill level, problem type or the way learners may approach the work.

Provide in-class support

- Ensure appropriate physical and communication supports are available.
- Incorporate inclusiveness strategies so that learners learn from each other, not just the facilitator—for example, group sessions, peer tutoring, co-operative learning, reciprocal teaching.
- Introduce Indigenous protocols into learning relationships.
- Get learners to provide instructions and directions for activities.
- Build in activities in which learners and you, as facilitator, think about the values and beliefs they have with regard to diversity, including gender.
- Challenge the subtle forms of discrimination you witness within the practice environment.

Identifying risks

Preparing for facilitating

This Learning Topic explores what you need to do to prepare for facilitating a group and to prepare the content and structure of your learning resources.

There are many things you need to do:

- identify learning objectives, performance criteria and assessment methods (where required) and refine them
- identify, evaluate, select, modify and contextualise existing published learning resources and support materials
- develop an outline of the structure of each session
- develop specific session-based learning resources and activities
- identify specific facility, technology and equipment needs for each session
- identify and organise additional resourcing to meet identified learner support needs, where required.

The delivery plan

A delivery plan is sometimes referred to as a session plan. It could cover a series of sessions.

A delivery plan provides you with a step by step guide to follow. You will need to start with learning objectives and then develop a delivery plan that provides you with a guide for the effective facilitation of learning. You will structure information, develop resources and provide practice opportunities that meet the needs of your learners.

A delivery plan may include:

- duration of each activity or exercise
- individual or group objectives
- formative assessment opportunities
- location of training
- number of learners
- activities to be used
- resources, for example, a whiteboard, overhead projector, handouts, or articles
- any additional requirements to meet special needs of learners
- OHS considerations to ensure a safe learning environment. This may be addressed under separate headings of venue, activities, equipment, or personnel as appropriate.

Learning objectives

Imagine what archery would be like without a target, or football without the goal posts—how would you know if you were successful? This is what it is like to run a session without planned and documented learning objectives. How would you know where you were going? How would you know if you had succeeded?

Learning objectives state what the learner is to learn as a result of participating in the program or session. Due to the diversity in the sector, you may find different kinds of learning objectives. They could include:

- units of competency
- learning objectives
- individual or group objectives
- generic or technical skills.

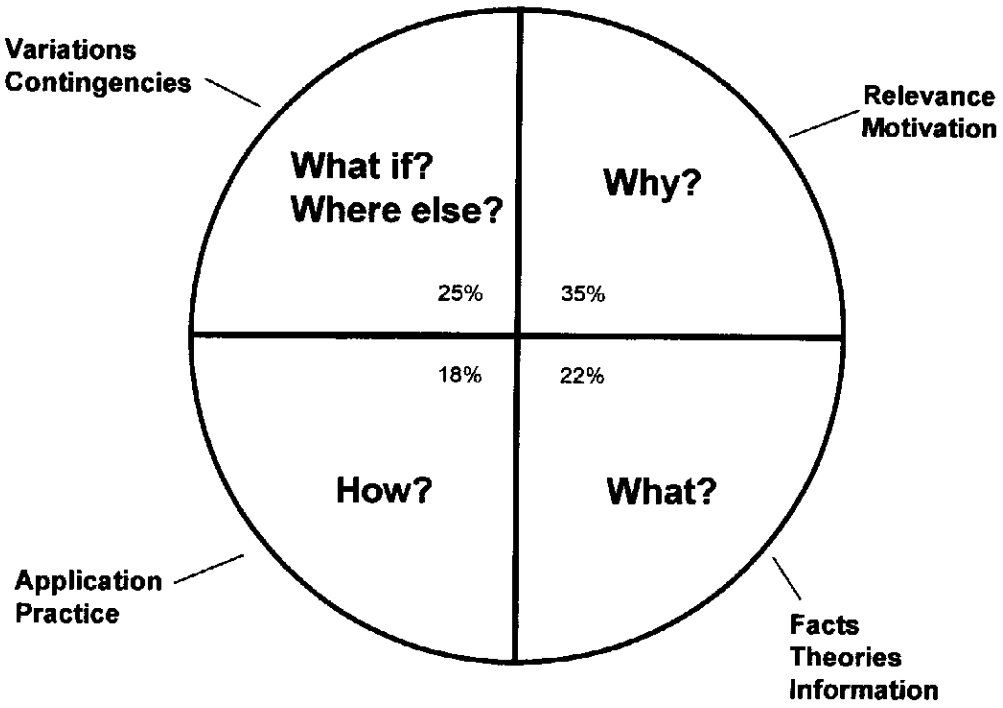
Assessment methods

You need to find out:

- what responsibility you will have for assessment
- who else may be involved in assessing your learners
- what you need to do if others are responsible for assessing your learners.

Checklist for selecting resources

- ❒ Is the resource current?
- ❒ Does the resource cover the competency standards or learning objectives that need to be addressed in the learning program?
- ❒ Does the resource provide clear and comprehensive information?
- ❒ Does the resource clearly identify its purpose and objective?
- ❒ Is the resource able to be contextualised to meet your learning needs?
- ❒ Does the resource respond to access and equity issues?
- ❒ Does the resource offer flexibility for delivery and assessment?
- ❒ If a course has been selected, do the hours and cost seem reasonable?
- ❒ Is the resource recognised by accredited bodies or organisations as covering the training requirements?


Variations
Contingencies
What if?
Where else?
25%
Why?
Relevance
Motivation
35%
18%
22%
How?
What?
Application
Practice
Facts
Theories
Information

Learning activities may include:

- discussion
- role-plays
- written tasks
- slides and/or video presentations
- case studies
- solving problems
- 'thinking skills' exercises
- collaborative learning projects
- workplace practice
- question and answer
- online research
- self-paced materials
- group learning activities
- individual activities
- practice
- demonstration
- a combination of the above.

Further reading

Page 77 to 84 of Ref - 16.taadel401a Plan & Organize Group Base learning.pdf

Work based learning.pdf

22.taadel404a Facilitate work based learning.pdf

individual learning.pdf

20.taadel403a Facilitate individual learning.pdf

Distance based learning

24.taadel405a Coordinate 7 facilitate distance based learnin.pdf

Day 5 Session 2

Preparing vocational teaching portfolios

Provide the following examples / Worksheet & Explain

Provide Training through instruction and demonstration of work skills

TAADEL301A.doc (0.03MB)
http://www.filefactory.com/file/2ppyhdlqhlsh/n/TAADEL301A.doc

Facilitate work-based learning

TAADEL404A.doc (0.03MB)
http://www.filefactory.com/file/60ojucglvyu3/n/TAADEL404A.doc

Group based delivery

TAADEL401A.doc (0.03MB)
http://www.filefactory.com/file/3i5scp12gkdn/n/TAADEL401A.doc

Use Training Packages to meet client needs

TAADES401A.doc (0.03MB)
http://www.filefactory.com/file/32bofyyl82wf/n/TAADES401A.doc

Design and develop learning programs

TAADES402A.doc (0.03MB)
http://www.filefactory.com/file/4nhro84kl2nx/n/TAADES402A.doc

Work effectively in vocational education and training

TAAENV401A.doc (0.03MB)
http://www.filefactory.com/file/45zeif6cy5zx/n/TAAENV401A.doc

Foster and promote an inclusive learning culture

TAAENV402A.doc (0.03MB)
http://www.filefactory.com/file/3zoufgaty89n/n/TAAENV402A.doc

Ensure a safe and healthy learning environment

TAAENV403A.doc (0.03MB)
http://www.filefactory.com/file/6ireaw7s5jg9/n/TAAENV403A.doc

Individual learning

TAADEL403A.doc (0.03MB)
http://www.filefactory.com/file/7g3h9iwpodfr/n/TAADEL403A.doc

Language Literacy & Numeracy

1397606218-taelln411_sample.pdf (0.34MB)
http://www.filefactory.com/file/5fh2bd8z3k0r/n/1397606218-taelln411_sample.pdf

Report.pdf (0.41MB)
http://www.filefactory.com/file/655u3qypqyj3/n/Report.pdf

Section 4 Model for core skills analysis.pdf (0.69MB)
http://www.filefactory.com/file/6p480mpcelft/n/Section_4_Model_for_core_skills_analysis.pdf

ACSF_Document.pdf (1.03MB)
http://www.filefactory.com/file/54s5xbe3esdn/n/ACSF_Document.pdf

LLN Preparation of students.docx (0.02MB)
http://www.filefactory.com/file/77ps5dxgbhpj/n/LLN_Preparation_of_students.docx

Australian Core Skills Framework for LLN Level determination.docx (0.02MB)
http://www.filefactory.com/file/4qt7gx24cd9l/n/Australian_Core_Skills_Framework_for_LLN_Level_determination.docx

Day 6 Session 1 & 3

Assessment Validation Guide of Myanmar Engineering Council

- assessment & evaluation methods for the attainment achievement of the Learning Outcome

Step 1

Day 6 Session 1/ VET Level Assessment Tasks/27.taaass401a Plan & organize assessment.pdf

Page 15, 18, 21, 22, 23, 24, 25, 26, 27, 28, 29, 31, 32, 51-Levels of performance

The potential assessment methods were:
Observation of the candidate at work/practical demonstration
Role-play
Customer feedback
Written and verbal questioning

Practical tasks
Third party report
Case study—customer complaints
Journal
Portfolio

Methods:

- observation of the candidate at the workplace interacting, serving and attending to customers
- verbal questioning that focuses on underpinning knowledge and contingency management for the three competencies
- role-play for customer complaints; working in a non-discriminatory manner; or a simulation of processing particular payments such as gift certificates
- third party reports from a supervisor.
- Sequencing of assessment activities
- When planning the assessment, consideration was given to the sequence of assessment activities.
- The initial assessment could be verbal questioning to ensure candidates have the required knowledge. This could be followed by a role-play to establish that individuals have basic skills to serve customers.
- A series of observations on the-job could be supplemented by a third party report from the supervisor

OHS

- Find out the answers to the following questions in your practice environment.
- Who are the relevant OHS personnel?
- What are the main OHS considerations in your industry or area of assessment?
- What are the specific procedures relating to hazard identification?
- What risk control measures are in place?

- What are the requirements for reporting hazards and incidents?
- What are the emergency procedures?

- What are the procedures for use of the relevant personal protective equipment?

- What OHS factors do you need to consider when planning assessment?

Page 74 , 78, 79,80, 81, 82, 83, 85, 86, 90, 91

Step 2

Day 6 Session 3/ TAEASS502B/ Assessment tools developed

Show the samples

Day 6 Session 1/ VET Level Assessment Tasks/8.Guides for preparing VET portfolios

Show the samples

Step 3

Day 6 Session 3/ Audit tools/

Day 6 Session 3/ TAEASS502B/ Assessment tools developed/

Show the samples

Also show the examples in

Day 6 Session 1/ University level Education Assessment Assignment Tasks Samples/ 2.2.doc

Day 6 Session 1/ University level Education Assessment Assignment Tasks Samples/ 3.3.doc

Further Reading

Day 6 Session 1/ University level Education Assessment Assignment Tasks Samples /NSWTVET804A.doc

Day 7 Session 2

Learning Technology Part 1

Detailed Course Teaching Plans/ Day 7 Session 2/ 5.Learning Technology 1/ index.html/ **Start the Unit**/Do the course

Look the sample module structure in CD based delivery

Table of Contents

Module 1: Getting Started and IT Empowerment and Teaching

Table of Contents

Module 2: IT and Education: The Hype and the Reality

Table of Contents

Module 3: Ghosts of Schooling Past, Present and Future

Table of Contents

Module 4: Making the World Wide Web Work for You

Table of Contents

Module 5: Technology in Your Classroom

Table of Contents

Use the hyperlinks to join the contents

Advantages

- Consistent teaching & learning
- Good references
- It is time consuming to start but once it has been developed, the head of the department can effectively control the whole and teaching and learning system
- The students can be directed to self place learning, resource research .
- By this way the self dependency and confidence can be developed

Disadvantages

- Needs IT skills
- Need to prepare all lessons in advanced.
- Computer competency
- Time consuming
- Limitation of resources

If this methodology is utilized to share the resources between the institutes rather than at the classroom teaching level, more consistent teaching, learning and resources sharing can be achieved among the institutes located at different geographical locations.

Introduction

Learning Technologies are the various forms of Information Technology (IT) [or Information and Communications Technologies (ICT)], which are used to improve student learning. Learning Technologies (LT) encompass:

- integration of IT into teaching and learning;
- developing and enhancing teacher competencies in learning technologies;
- student access to electronic educational resources (hardware, software and networked multimedia); and
- school infrastructure and connectivity.

Learning Technologies are an integral part of teaching and learning programs and are expected to facilitate the development and improvement of outcomes in all learning areas (not just "Technology and Enterprise"). They are tools to achieve an outcome, not an outcome within themselves. Let us not forget that! Success will be shown by what teachers and students achieve and can do, not by the number of machines sitting in classrooms

Accessing the Course Materials Via the CD-ROM

All materials for this course and other *Learning Technology for Teachers* courses provided by Curtin University are also provided on CD-ROM. The CD-ROM allows us to include some files (exercises, handbooks, videos , etc.) that, because of their large size, have not been placed on the Internet site.

The CD-ROM has a file structure that is virtually identical to that of the Internet site.

The main **ADVANTAGES** of accessing the course via the CD-ROM are:

- Access is MUCH FASTER than via the Internet;
- Some materials are available only on the CD-ROM; and
- Many students will find it convenient that an Internet connection is not required.

The main **DISADVANTAGES** of accessing the course via the CD-ROM are:

- The CD-ROM is "static" - that is, it can not be updated. In an area changing as fast as networked multimedia, it probably has a "shelf life" of about three or four months;
- There is no access to the internal Mail, Bulletin Board, Chat Rooms or hypertext logging; and
- Some materials that are available only via other Internet sites cannot be accessed.

Dimension	Traditional classroom	Classroom using Internet - Multimedia - information technology
Primary source of knowledge	Teacher	Available "out there" in the net
Learning group	Class size or small group	Class or the individual in an unlimited number of net sites
Learner age range	Uniform	8 to 80
Learning initiator	Mostly a teacher	The student
Learning schedule	In school, at fixed hours	In school as well as any other time
Place of learning	The school	Next to a computer
Learning tools	Reading and writing materials	Computer technology
Learning style	Linear	Parallel
State of updated knowledge	Knowledge rarely updated	State of the art knowledge
Student questions directed to	Teacher: question time limited	Teacher and experts: question time flexible
Evaluation	Teacher is main source	Projects are main source
Laboratory work	May be a % of class time	Mainly indirect as lab simulation

Tools, Not Take-overs

Do we want computers to replace teachers?

Do we want every child to have access to her own computer throughout the school day?

Do we know where computers are best used in schools, and where listening - talking - thinking - writing (on paper) - reading (from books) are preferred methods of instruction?

Do we really know what we want to do with IT in the classroom, much less how to do it?

One approach is to provide every child -- or, more likely, have every parent provide for their child -- a personal laptop computer. This is becoming increasingly common, especially in independent schools.

Is this the answer?

Computing As A Tool, NOT An End In Itself

Before looking a little more closely at "wired schools", we should consider the impacts of IT and computing across the curriculum, from pre-school to secondary and beyond -- what does it really offer?

I addressed some of these issues in the paper I asked you to read for Module 2 (Staff Development in Computing and Information Systems Literacy: Computing as a Tool, Not an End in Itself). You might recall that my goals were to look at:

What are the differences between "educational computing" (that is, using computers, digital information and the Internet to teach a wide range of subjects), and "computer education" (teaching how computers and networks operate, personal computing skills, information systems design and analysis, programming, etc.)? Can IT change the nature of teaching and learning, in a range of environments, from pre-school to tertiary study? Are our schools exploiting the potential successfully? Do we need / want the "cyber classroom - School of the Future" to dominate education? What are its pros and cons?

What is the division of responsibility, between the home and the school, in encouraging the developing of IT skills, as well as providing access to IT?

Are students being inundated with "information" with little consequent increase in knowledge or understanding? Is IT becoming the education system's servant, or are teachers and students becoming IT's slave?

Search Directories and Search Engines

Many people like to think of the Internet as a huge library of information, but nothing could be further from the truth. Libraries are designed specifically to support the organised retrieval of published information and use tools, such as card catalogues and online databases, created for this purpose. The Internet -- and especially the World Wide Web -- was not designed this way. The Web has evolved into a somewhat chaotic digital repository that includes not only books, reports, and other types of papers, but also raw scientific data, menus, meeting notices, personal

stories, multimedia recordings, recipes, transcripts of interactive conversations, news, and advertisements. Pages of great value share Web space with pages of little or no worth to the general public (which is as it should be on a democratic Net).

Methods for organising the chaos of the Web are being developed continuously, but so far there is no single source for searching its entire contents. Because content being searched with one tool may or may not overlap with content being searched with another (no two indexes are exactly the same), you might have to use more than one tool to satisfy your research query.

Choosing the most appropriate tool for a search can save you time and frustration. Just as you wouldn't want to use a high-heeled shoe to pound in a nail, you wouldn't want to frustrate yourself by using a search tool that makes your research more difficult.

(from Internet Search Techniques, by Karin Rex, ZDU, 1998.)

We've already looked at special "teacher sites" and the use of special lists compiled for teachers by others. Later you may want to focus on refining your own search skills and building up your own list of favourites. [As previously mentioned, there is an excellent tutorial on 'Using the Internet -- Basic and Advanced Searching' referenced in the optional extras section at the bottom of this page.]

Evaluating What We Find

Once you have practised searching, you'll get very handy, very quickly, at it. More difficult is deciding the value of what we find on the WWW -- as I mentioned earlier, there are no editors, no filters -- grandma's old wives tales share the Internet with scholarly articles and hate sites.

I have seen two serious problems with my own children, especially when they were 10 - 13 years old, using the Internet

Firstly, they seem to think it is the "first stop" for all homework -- WWW first, then books, then ask Mum or Dad. Very often, the WWW is **not** the place to start, or even to finish; an encyclopaedia (paper or CD-ROM), or a newspaper/magazine/book, would be much more useful.

Secondly, children are used to believing what they read, and see on TV, and see on computer screens, and often have difficulty distinguishing a vested interest or personal axe to grind (even if they can pick the most extreme "hate sites" or "radical religion" pages). [A third issue, of course, is access to inappropriate material although most school networks are fairly well filtered and protected these days.]

I don't think that many educators have paid sufficient attention to these issues.

Quality Control and the WWW

There is a wealth of poor quality information on the WWW -- endless examples of information that is inaccurate, inaccessible, invalid, incomplete, out of date, unreadable or simply irrelevant. Students (and teachers) need a set of evaluation skills beyond those required for print media.

Remember that virtually anyone can publish virtually anything on the WWW; authors make mistakes, assume personas, exaggerate, make false claims, and simply lie. Consider the WWW site that claimed to be written by a political party but was in fact written by the opposition party, or the citation of an online physics paper by A. Einstein (Amy Einstein, of Melbourne). [adapted from a paper by Emma Worsfold and Debra Hiom, citation unknown.]

So what do we need to consider? Source (author / authority / affiliation), Content (accuracy / objectivity), Currency and Purpose would be at the top of my list.

Source (author / authority / affiliation)

- Who wrote the material?
- What are his/her credential **on this subject**? [A PhD in physics does not guarantee authority on AIDS, politics or theology]
- What are his/her professional affiliations? Can they be verified independently? [And are they the same as the site's, or is the site a "personal page" on a commercial service?]

Content (accuracy / objectivity)

- Are the sources for all factual information, including charts and diagrams, cited?
- Can the cited sources be located?
- Is the material well-written (comparable to a textbook)?
- Is there evidence of bias, or a particular point of view on a controversial topic?
- Are the links provided relevant, unbiased and comprehensive?
- Is the site free from advertising? If not, does the advertiser have a vested interest in the topic? [such as a pro-smoking page supported by a tobacco company]

Currency

- Is this a subject which changes rapidly over short periods of time?
- Is a publication date / date of last revision provided?
- If data are time-dependent, are dates provided?

Purpose

- Is it clear why the author wrote the material? Is the author affiliated with an educational institution (.edu), a non-profit organisation (.org), the government (.gov), or a commercial venture (.com)? [It is important to note that some domains can be bought by pretty much anyone and anyway, would you trust every country's .gov sites?] In other words, Check the Source
- Is the purpose of the sponsoring organisation clear?

- Can the organisation be located independently of the WWW (physical address, mailing address, telephone/fax)?

Students should be made aware of these issues when they first start using the WWW, not years down the track.

Learning Technology 2

Sample CD based training

Day 7 Session 2/ 6.Learning Technology 2/Do the course/index.html/Stream 6: Planning, Implementing and Managing School Technology Infrastructure

Day 7 Session 2/ 6.Learning Technology 2/Do the course/index.html/ Stream 7: Learning Technologies for Teacher - Librarians

Day 7 Session 2/ 6.Learning Technology 2/Do the course/index.html/ Stream 8: Creating Courses on the WWW and CD-ROM/ Part 2: Creating Multi-platform CD-ROMs

- Browse this pages and show how practical training can be provided by CD based training.

Day 7 Session 3

Show IQY Technical College Learning platform in DVD.

- iqytechnicalcollege.htm
- School Lesson DVD
- Lesson DVDs
- Lesson DVDs Mod
- IQY Technical Resources provided to other organizations Part 1
- IQY Technical Resources provided to other organizations Part 2

- IQY Technical Resources provided to other organizations Part 3A
- IQY Technical Resources provided to other organizations Part 3B
- Mixed DVD Lessons School + Higher Education
- K 2.11 Computer Back up
- KN Office L1.1 Computer Back Up
- Engineering Practicals
- Intensive 26 Days Session Videos

Explain e-Learning system of IQY Technical College

Develop resource development tasks

- Taking audio
- Taking photo
- Edit audio
- Embed into power point
- Take video
- Change format
- JPG/PDF conversion
- Video format change
- Insert hyperlinks
- Uploading hints
- Hand on practices

Day 8 Session 1

Technology in Classroom

Day 8 Session 1/ 7.Technology in classroom/ index.html/ **Start the Unit**/Do the course/ Developing Leadership Skills in Technology

Teachers as Learners

Before commencing any program of supervision, it is important to develop an understanding of the teacher as a learner. Teachers' practice, it is held, is determined by the construction of an internally verifiable base of knowledge. Learning or change requires a teacher to test new knowledge against what he/she already knows to be "true". Sometimes called a "constructivist" perspective [1]

(MacKinnon & Erickson, 1988), it requires that any attempt "to change the practices of those who teach, it is necessary to come to grips with the subjectively reasonable beliefs of teachers" (Fenstermacher, 1978, p.174).

To understand the teacher as a learner, it is useful to have some conception of the what and how of teacher learning. Michael Fullan (1990) describes four aspects of the teacher as learner - technical, reflective, inquiry and collaborative. "[These aspects] must be seen in combination. Each has its separate tradition of research and practice, and each has made important contributions in its own right. The mastery of technical skills increases instructional certainty; reflective practice enhances clarity, meaning and coherence; inquiry fosters investigation and exploration; collaboration enables one to receive and give ideas and assistance" (p. 19-20).

Leadership

The teacher as learner is shaped by a variety of personality and career factors that make up the total teacher. Teacher learning is also affected by environmental factors - the classroom, colleagues and the culture of the school, of which leadership is one aspect. It is important not to overplay (nor underplay) the importance of leadership in teaching. The teacher is a professional practitioner constantly grappling with real problems in his/her classroom. Reflection, inquiry, collaboration and the development of technical expertise will proceed with or without good leadership. Leadership can however make a difference in promoting teacher learning by mobilising an organisational climate of support (Rosenholtz, 1989). Fullan et al (1990, p. 14-15), for example, refer to four climatic conditions:

Day 8 Session 1/ ED 308 Computer Supported Learning & Distance Education/Computer Supported Learning.pdf

Page 14 to 22

Collaborative learning:

• promotes critical thinking skills
Under this dot point Panitz suggests that collaborative learning develops higher level thinking skills; stimulates critical thinking; helps students clarify ideas through discussion and debate; enhances skill building and practice; develops oral communication skills; fosters metacognition in students; and improves students' recall of text content through cooperative discussions;

• involves students actively in the learning process

And here, that it creates an environment of active, involved, exploratory learning; encourages student responsibility for learning; involves students in developing curriculum and class procedures; provides training in effective teaching strategies to the next generation of teachers; helps students wean themselves away from

considering teachers the sole sources of knowledge and understanding; fits in well with the TQM and CQI models of effective management; promotes a learning goal rather than a performance goal; fits in well with the constructivist approach; and allows students to exercise a sense of control on task;

models appropriate student problem-solving techniques

Collaborative learning fosters modeling of problem solving techniques by students' peers; allows assignment of more challenging tasks without making the workload unreasonable; can help weaker students improve their performance when grouped with higher achieving students; provides stronger students with the deeper understanding that comes only from teaching material (cognitive rehearsal); leads to the generation of more and better questions in class; provides a safe environment for alternate problem solutions; and addresses learning style differences among students.

Collaborative learning:

Psychological Benefits

• can increase students' self esteem

Group learning can help to reduce anxiety; enhance student satisfaction with the learning experience; promote a mastery attribution pattern rather than helpless attribution pattern; and encourage students to seek help and accept tutoring from their peers;

• develops positive attitudes towards teachers
Such an environment can create a more positive attitude on the part of students towards their instructors; and create a more positive attitude by instructors toward their students; and set high expectations for students and teachers.

Social Benefits

Collaborative learning:
• develops a social support system for students
For example, it promotes student-faculty interaction and familiarity; develops social interaction skills; promotes positive societal responses to problems and fosters a supportive environment within which to manage conflict resolution; creates a stronger social support system; fosters and develops interpersonal relationships; and helps students to develop responsibility for each other;

• builds diversity understanding among students and staff

- Collaborative learning builds more positive heterogeneous relationships; encourages diversity understanding; fosters a greater ability in students to view situations from others' perspectives (development of empathy); and helps majority and minority populations in a class learn to work with each other (different ethnic groups, men and women, traditional and non-traditional students);

- establishes a positive atmosphere for modeling and practicing cooperation

- Collaborative learning establishes an atmosphere of cooperation and helping;

- helps students learn how to criticize ideas rather than people; helps to model desirable social behaviors necessary for employment situations that utilize teams and groups;

- helps students practice modeling societal and work related roles;

- fosters team building and a team approach to problem solving while maintaining individual accountability; creates environments where students can practice

- building leadership skills; increases leadership skills of female students; develops learning communities;

- provides the foundation for developing learning communities within institutions and in courses; helps to promote social and academic relationships well beyond the classroom and individual course; and helps teachers

- change their roles from their being the focus of the teaching process to becoming facilitators of the learning process (they move from teacher-centered to student centered learning).

Graham and Misanchuk (2003) have suggested that there are three general stages that
are important if using groups in a CSCL environment is to be successful:

- creating the groups,
- structuring the learning activities, and
- facilitating group interactions

- Davis (1993) has supplied excellent solutions to a number of problems of collaborative

- learning, broken down under the following headings:
- • general strategies,
- • designing group work,
- • organizing learning groups,
- • evaluating group work,
- • dealing with student and faculty concerns about group work, and
- • setting up study teams.

General strategies,

• designing group work,
• organizing learning groups,
• evaluating group work,
• dealing with student and faculty concerns about group work, and
• setting up study teams.

- forming teams,
  - dealing with dysfunctional teams,
  - grading,
  - distance learning, and
  - avoiding discouragement.

Challenges for teachers

Salmon (2000) has suggested that in any computer-supported session, the instructor might need to be a chair, host, lecturer, tutor, facilitator, mediator of team debates, mentor, provocateur, observer, participant, co-learner, assistant, community organizer, or some combination of these! This clearly points to the fact that the skills required on the part of the instructor are more complex and diverse than those required for a face-to-face lecture. Thus, instructors need to be prepared for the different roles they will have to assume. In some cases, this may mean formalized training programs.

However, it is quite possible for collaborative learning to benefit all students. It is often said by academics and instructors generally that the best way to learn a subject is to teach it, and for good reason – when teaching, one needs to gain a thorough knowledge of the subject, not

only to prepare material, but also to be able to answer questions confidently.

No matter how good the preparation on the part of the instructor, further questions will almost inevitably arise during the course of instruction, thus leading to an even better understanding.

It seems naïve in the extreme to assume a similar process will not occur when the students themselves take on the unofficial role of instructors to other students within their group.

Assessment

- At the beginning of the course, the instructor randomly assigns students into groups.

- Each group is assigned one of the weekly topics and has to make a single online presentation. Students are assessed not just for their group's presentation but also for their comments about other presentations.

- Each group presentation is also assessed on the quality of the discussion that follows. Typically, by the end of semester, students will have received over 100 inputs on their work from other students in the group, other groups, and the instructor.

- In the last week of term, students are invited to submit a recommendation in writing on each other's group performance.

- The instructor considers any such recommendations when allocating individual marks for group performance to members of the group.

- A student who a group decides did not contribute sufficiently may suffer a reduction in mark as a result.

- Different assessment criteria may be used – for example, for the electronic presentation, clarity and structure of presentation, originality of ideas, and ability to substantiate arguments by relevant data; for other contributions, understanding the arguments

that are made by other presenters, linking them to the relevant literature, and making pertinent critical comments about these arguments.

- The students' final marks are based on a combination of their group work throughout the semester and their performance in an end-of-semester examination.

Page 31

Online Group Projects:

Preparing the Instructors to Prepare the Students

- Preparing instructors to prepare students to participate in online group projects is an important precursor to successful collaborative projects in computer-supported courses.

- Lesson modules developed in "*The Group Project Project"* provided instructors with specific guidance in applying techniques and teaching strategies for collaborative online projects. Interviews with instructors and students participating in online collaboration and group projects, as well as reviews of published research, were influential in determining the content of the instructor preparation modules.

- Student collaborative learning and the resulting learning communities are important elements in online teaching, both in principle and in practice. It is the vibrant sense ofcommunity of learners that makes successful online courses so rewarding for participants.

- Group projects need to be considered in the overall instructional plan for usefulness, timeliness, and instructional quality. However, many instructors teaching

- online classes are themselves new to online teaching and learning. They need guidance in setting up and delivering instruction for their students to fully engage in an online collaborative learning experience. Providing this guidance was the goal of

The Group Project

- The Group Project incorporates theories and methods learned, and applies them to online lessons targeting instructors. The project focused on the development of lesson modules (or learning objects) that are intended to be used as part of a larger course.

- These modules include guidelines and specific “how to’s” for instructors, based on reported research in collaborative group projects in online learning. These lessons are designed to prepare instructors to prepare students to participate in online group projects and to apply techniques and teaching strategies for collaborative learning to online group projects. With this set of flexible instructional modules, the basic elements of online group projects can be passed on to instructors either individually or as a group.

- These modules instruct faculty members on the theory and process for including group projects in their own online course work. Preparation of instructors and students for online collaboration and group projects are critical to their success.

Student-Centered Learning

“

- Student-centered learning requires active input from students and requires intellectual effort and aids retention. Students must build their own knowledge through activities that engage them in active learning. Effective learning happens when students take stock of what they already know and then move beyond it.

- The role of the teacher in student centered learning is to facilitate the students’ learning by providing a framework (i.e., activities for students to complete) that facilitates their learning (Hiltz, 1993).

- Following the Constructivist Learning Approach, online group project activities are collaborative, conversational, intentional, and reflective (Lum, Mebius, & Wijekumar,

- 1999). Collaborative work, joint assignments, and learning resources shared among class members and the instructor are integrated (Mason, 1998). To succeed, students are self disciplined, intrinsically motivated, willing to learn, comfortable with basic technology, have access to a computer with an Internet connection and have adequate computing skills (McCormick & Jones, 1998).

- The group will not have all the skills or knowledge necessary to complete the activities and will need to work through a series of trial and error attempts.

- Experimenting is an important activity within the project. Depending on the skills within the group, the instructor may have to provide additional instruction or guidance or direction to ensure that the groups will be successful in bridging the knowledge gap before or during the project work.
- Practicing skills through project activities ensures that learners have the opportunity to acquire knowledge and move toward the expected learning outcomes. The group work necessitates using and refining skills in many

areas of group working, relationship building, and the specific content-related tasks.

- Group project work usually involves some individual work and the synthesis of the group deliverable. In an online environment, these activities usually require reading and summarization of the source information. Using online communications -discussion, email, chat-requires students to engage in reading and summarization.

- Depending on the project task, the depth of research and analysis can be extensive or relatively minor. Conducting research and analysis online is a natural extension of the project.

- Articulating (writing, drawing) appropriate to the project should be included.

- Each student is required to contribute through articulation, informing, and, in some cases, persuading team members. Online, more forms of expression such as images, animation, video, audio, may be possible and encouraged.

Instructional Approach

- In online teaching and learning, technology can provide new and challenging avenues for addressing a variety of learning styles. It is important to strive for a balance of instructional methods. Students can be taught in a manner they prefer, which leads to an increased comfort level and willingness to learn. Some learning in a less preferred manner provides practice and feedback in ways of thinking and solving problems.

- Students may not initially be comfortable with this, but with practice, they will become
- more effective learners. Teaching designed to address all dimensions on any of the
- models is likely to be effective (Felder, 1996). While each learning style model has its advocates, all models lead to more or less the same instructional approach.

- Traditional instruction focuses almost exclusively on formal presentation of material
- (lecturing), a style comfortable only for learners who prefer information presented in an organized, logical fashion and who benefit from time for reflection. To reach all types of learners, instruction should explain the relevance of each new topic, present the basic information and methods associated with the topic, provide opportunities for practice in the methods, and encourage exploration of applications

- Distance learning styles, or learning preferences, change over time and by situation (Diaz, 2002). Student characteristics change constantly. A model that continuously monitors student characteristics and determines which characteristics facilitate favourable outcomes is more appropriate than traditional static learning style models.

- This student- and learning-centered approach in educational practice can be accommodated in an online learning environment by providing information - student tracking, captured discussions, work products-for increasing faculty sensitivity to the individual learner

Benefits of Group Projects in Online Collaborative

Learning

- There are significant benefits that can be derived from collaborative learning and project work (Tinzmann et al., 1990). The principle benefits of group projects in online collaborative learning include but are not limited to: building self-esteem, reducing anxiety, encouraging understanding of diversity, fostering relationships, stimulating critical thinking, and developing skills needed in the workforce.

- Building self-esteem is an important benefit of online collaboration and group project activities. Students are simultaneously working alone and in an intense community of learners. Students must develop and rely on their own efforts.

- There is little opportunity to be swept along with the rest of the group.

- There is no escaping the personal accountability. By contributing to the group effort, students take personal credit for their role in the activity.

- This visible effort is concrete evidence of participation and learning and contributes to building students' self-esteem.

Page 39 of Computer Supported Learning.pdf

Text -E Learning Standards.pdf

Page 22

The development of competency model

A competency may be considered to be based on subject matter knowledge and skill, contextualized with respect to particular situations or scenarios (Harzallah, Berio and Vernadat, 2006).

Competencies may be assembled and linked in a rich data structures. A competency may appear in more than one place in a competencies hierarchy.

Thus, it makes sense to capture the data model of competencies in some reusable form, so they have to be defined only once.

• **Description:** the general description of the competency.

• **Type:** type of trait that represents an aspect of the competency such as knowledge, skill, attitude, and so on.

• **Relationship:** relationship to other competencies such as “part-of”, “child competency”, and “parent competency”.

• **Proficiency level:** a measurement of the degree to which the competency has been achieved.

• **Measurement scale:** a scale that relates to proficiency level and weight.

• **Taxonomy:** a taxonomy reference for structuring competency data.

Evidence: facts or indicators about the achievement of a competency, such as test results and certificates.

• **Tools:** any tool(s) required to support reaching the competency.

• **User area:** Other data, such the description of a job position.

Experimental Validation of Generated Questions

An experiment (Sitthisak, Gilbert and Davis, 2008) was carried out to demonstrate the acceptability of the generated questions from the competency model, exploring the following two questions:

• Were the generated questions semantically intelligible to an expert teacher of the domain?

• How did students rate the generated questions on the criteria of clarity, usefulness, challenge, and match with the learning outcomes?

The results indicate that the generated questions were of acceptable value to the students.

The student ratings showed the specific questions were more useful, and the generic questions were more challenging. This finding suggests that the students did not enjoy answering with definitions and explanations, and preferred questions with a variety of specific situations.

Page 33 *Table 6. Illustrative question template summaries*

Learner management in e-Learning Page 500

Educational institutions and corporate bodies are turning to e-Learning primarily because it has capabilities to effectively impact a larger community for the least amount of investment and expense.

Secondarily, it is contributing to an increase in retention and recruitment. To fully apprehend the results of e-Learning, it is important to examine the systems of learning available, how to manage them, and how they can be integrated with other learning environments.

Example www.electricaldiploma2013.zoomshare.com Study option 1/2/3

SAMPLE ASSESSMENT ITEMS:

- documented learning strategies

  In TAFE college where I am teaching, there are different categories of students. Some can attend the classes during the day times, some from the industries can only attend at night & some from remote areas can not attend the face to face classes.

  I develop the teaching strategies to teach the face to face classes as well as flexible online/ off line learning.

  I establish the learning support website

  www.electricaldiploma2013.zoomshare.com

  Advanced Diploma in Electrical Engineering & Technology Home.htm

  & plan three tupes of learning strategies

  Study Option 1.

  The students will study the lessons by downloading them from the link

Click HERE

http://www.filefactory.com/file/58jjdqiek18z/Study_Option%201.htm

Password—joe2013

The face to face class lessons are recorded in digital note takers and digitized.

The students learn the topics of the lessons, do the exercises and submit the assignments.

By this way, the same level of learning as to face to face class can be obtained.

Study Option 2

Study option 1 is suitable for the students who have not learnt the lessons before.

But some students prefer their own study & want to do self paced assignment projects. For those, I design the study option 2 webpage in which the textbooks/ reference books are uploaded & linked. The students can study those resources , do the project assignments and submit them.

It is more suitable for the matured aged students with industrial experiences.

The link can be accessed at

Click EE011 +1790817794.Zoomshare.com

http://www.filefactory.com/file/551mzcdoav8p/1790817794zoomshare.htm

Password—joe2013

Study Option 3

It is a video version of lesson delivery. The same classroom demonstration can be viewed. The students who attend the face to face class or who view the lesson demonstration will then be assessed by test/ examinations.

youtubevideos.htm

Practical

Practical delivery is also designed with both face to face and online mode.

For online mode, the students can study and do the engineering practicals from the following link.

youtubevideos.htm

Thus, merging the two areas, functions in LMS will include:

• Managing facilities, users, courses, instructors, roles, and generating reports,

• A Course calendar outlining the timelines for course or assignment,

• A Learning Path or the means of identifying how the student and faculty will complete the knowledge and other competencies,

• Student messaging and notifications,

• Assessment/testing capable of handling student pre/post testing,

• Display scores and transcripts,

• Grading of coursework and roster processing, including wait listing,

• Web-based or blended course delivery.

Characteristics more specific to corporate learning, which sometimes includes franchisees or other business partners, includes:

• Autoenrollment (enrolling Students in courses by predefined criteria),

• Administrator/Manager enrollment and approval,

• Definitions for prerequisites or equivalencies (generally boolean),

• Integration with performance tracking and management systems,

Planning tools to identify skill gaps at departmental and individual level,

• Curriculum, required and elective training requirements at an individual and organizational level,

• Grouping students according to demographic units (geographic region, product line, business size, etc.),

• Assign corporate and partner employees to more than one job title at more than one demographic unit.

Overview of traditional,
Non E-based Pedagogy

Principles of teaching have been traditionally established in methods of instruction for a while and extensively researched. According to Meyen et al (2002), pedagogy includes teaching methods related to the following

a. presentation of experiences,
b. engagement of learners,
c. reinforcement,
d. motivation,
e. organization of teaching tasks,
f. feedback,
g. evaluation, and
h. curriculum integration

of these elements have been researched to determine the most significant factors with what, who, when, where and how. However, certain common themes have emerged over time including:

1. learner
2. teacher
3. learning environment
4. learning content
5. learning support systems/tools

For example, when an institution trains teachers, is the institution's effectiveness evaluated on the basis of the following?

i. number of teachers produced,
ii. practices and approaches to teaching and

producing the teachers and evaluating them?
iii. failure, passing, college admission or attendance rates of the students produced by the teacher or the institutions in which they teach?
iv. how many students go on from the school to be classified as successful professionals
v. e.t.c.?

Overview of E-based Pedagogy

According to Meyen et al (2002), e-Learning is a form of pedagogy, and the effectiveness of pedagogical practices can be measured. A knowledge base of pedagogical practices has evolved over time and is currently still a work in progress.

Examples include practices related to communication, assessment, instructional design and mediation.

Traditional/classical and E-Learning systems

In both systems, the themes are the same and the players have been stable. What has changed is that the traditional environment more strongly emphasizes a hierarchical structure for learning with the teacher controlling the environment, and a more limited social environmental learning.

However, because classical learning also includes limited space (in distance and time) for physical contact, it also has some social learning environments. This is in contrast to the virtual environment where several learning processes may be simultaneously engaged in several private spaces that may include two or more people.

Thus the “hubbub” of the communication environment can be “controlled” for more private interactions without the other learning “relationships” being aware of the exchanges in the virtual spaces.

However, the virtual environment lacks the physical interactions of the real environment, thus the avenues for information transmission to all the senses is currently limited.

five-phase implementation strategy

labeled *initiating*, *discovering*, *envisioning*, *actioning* and *sustaining*. with four key theoretical concepts: metastrategy (Limerick et al. 1998); appreciative inquiry (Cooperrider and Whitney 1996); action learning (Argyris and Schon 1996; Kolb 1984; Zuber-Skerrit 1990) and organizational capacity building

Technology in the resource Poor Environment

Technology and creativity in e-Learning can help compensate for and overcome levels of resource poverty.

Recent advances in computer technology have made e-Learning a major component of the learning environment. Teachers and students are challenged to upgrade their skills for appropriate use of the technology to meet pedagogical and didactic needs.

The virtual environment allows and encourages students to initiate their learning.

The instructor/teacher's role becomes more supportive, flexible and responsive, to meet and address the student's requirements while the instructor also expands his/her repertoire of tools and competencies.

By learning and implementing new skills, teachers can introduce new approaches such as multimedia course design, tutoring, managing collaborative work groups, problem-based learning, product development or any emerging technologies to encompass new teaching and learning in contrast to traditional teaching methods.

This high quality, effective and efficient learning process for both students and teachers can be brought about by improved teacher training

To make pedagogy effective, teachers can design and develop courses (FGCU 2006, Athabascau 2004, Illinois Online Network 2007) of interest and make them available on-line for communicating with the student remotely.

The design must incorporate necessary skills for understanding – conceptual, cognitive, psychometric, and attitudinal, among others – knowledge, skills and competence transfer.

Such measures do not require much resources for the teacher; rather, it utilizes available technologies to gain interaction with the student.

Example

- e-Based electrical practical class.
- e-based practical videos

Course Notes DVD/CD/ Day 7 Session 3

Course Notes DVD/CD/Day 8 Session 2

Sample- Switch board Circuit breaker Installation 1.mp4—Electrical

Sample- Brick Laying.mp4----------Civil

Sample-- CNC 1.mp4-+ CNC 3.mp4----------Mechanical

The Use of blended Learning Approaches to Address specific resource Needs

In e-Learning, the terms blended learning and hybrid courses are synonymously used to refer to a combination or integration of face-to-face class room instruction with online instruction (Graham 2005).

Blended learning incorporates the best features of the two learning approaches.

Regardless of whether the environment is resource rich or resource poor, the blended learning helps to bridge gaps in learning. Learners will have face-to-face instruction, a wealth of learning activities available online for independent learning, and reduce drawbacks in resources for class instruction and time.

In resource poor environments, it is necessary to assess the level of blending required based on the resource needs available for class room and online instruction. If the quality of instructors, buildings, or space is a limitation, then online instruction makes a greater contribution and has greater weight; but a balance is more critical to the learner's needs.

Blending is an ongoing process and evolves with time, until effective delivery of instruction is attained for both instructor and learner.

The reduction of class room time will also help retain students who are limited by other constraints such as transportation, family responsibilities, occupation, and/or being otherwise engaged.

Blended learning allows students to make up for class hours with online instruction available for them to study at their own pace and style.

Blended learning also provides more options for the teacher to manage and organize course curriculum.

Online instruction can be used to deliver a major portion of course contents, while class room instruction can be utilized for discussing difficult aspects of learning or for problem solving (Doo & Seung 2008).

The blended learning environment puts greater responsibility on the instructor to design the course to address the needs of the learner based on the best pedagogy applicable to the student.

LMS may help to monitor and track student performance, and throw light on blended instruction effectiveness.

Day 8 Session 2

Sharing the e-Learning work experience utilized in TAFE-NSW Australian Classroom

- Resources development
- Computer assisted test
- Use of online test/online survey
- Online simulated practicals

www.easytestmaker.com

http://www.emailmeform.com/

Step 1

Hard Drive

Show iqytechnicalcollege.htm--- Students in Australia

Study Option 1/2/3

Step 2

Hard Drive

RECORD-2015/ Teaching/ IQY-STCTU/ Engg Skill

Show study areas

Step 3

Hard Drive

RECORD-2015/ Teaching/ IQY-STCTU/ GE+IE

Show study areas

- Assist in contents preparation

Day 9 Session 1

Explain the contents in Day 9 Session 2 Folder

Day 9 Session 2

Preparing the documents to comply with Myanmar Engineering Council Requirement

ASSESSMENT POLICY OF ADVANCED DIPLOMA COURSES IN ENGINEERING,MANAGEMENT & INFORMATION TECHNOLOGY

ASSESSMENT POLICY OF PROFESSIONAL DIPLOMA COURSES IN ENGINEERING,MANAGEMENT & INFORMATION TECHNOLOGY

ASSESSMENT POLICY OF CERTIFICATE/ DIPLOMA COURSES IN ENGINEERING,MANAGEMENT & INFORMATION TECHNOLOGY

The assessment tasks are designed for assessing the followings

Graduates at this level will have specialised knowledge and skills for skilled/paraprofessional work and/or further learning

Knowledge	Graduates at this level will have technical and theoretical knowledge in a specific area or a broad field of work and learning
Skills	Graduates at this level will have a broad range of cognitive, technical and communication skills to select and apply methods and technologies to: · analyse information to complete a range of activities · provide and transmit solutions to sometimes complex problems · transmit information and skills to others
Application of knowledge and skills	Graduates at this level will apply knowledge and skills to demonstrate autonomy, judgement and defined responsibility in known or changing contexts and within broad but established parameters

Competency-based training focuses on students' ability to achieve learning outcomes to a specified level (ie Competent). Once the students attain this level, they receive a grade of Competent .

The assessment grades are given at USA Grading Criteria together with Australian Competency based training system,.

The assessment tasks up to diploma level is focussed on the knowledge the students needed in order to perform that work, and the abilities the students needed in order to apply their knowledge in an engineering /management, Information Technology context.

The assessments project assignments are designed to assess the candidates' capability in feasibility investigation, scoping, establishing criteria/performance measures, assessing and reporting technical and procedural options; design and development; component, resources and materials sourcing and procurement; construction, prototyping, manufacture, testing, installation, commissioning, service provision and de-commissioning; tools, plant, equipment and facilities acquisition, management, maintenance, calibration and upgrades; operations management; procedures documentation; presentation and reporting; maintenance systems design and management; project and facility management; quality assurance, costing and budget management; document control and quality assurance in several engineering, business and information technology applications.

IQY Technical College uses continuous monitoring & assessment methods and tasks to evaluate the student's competence in a particular unit of competence/qualification. All assessments tasks are designed in accordance to the relevant training package specifications of a qualification/unit of competence and may include assignments, practical assessments, presentation, project work, written tests or other methods deemed appropriate to assess students' competence in carrying out tasks to a required standard.

Especially assignments/ project works are continually assessed throughout the course as the students progress in their study. For a limited circumstances, formal written tests are conducted.

ASSESSMENT POLICY OF ADVANCED DIPLOMA COURSES IN ENGINEERING,MANAGEMENT & INFORMATION TECHNOLOGY

The assessment tasks are designed for assessing the followings

Graduates at this level will have broad knowledge and skills for paraprofessional/highly skilled work and/or further learning

Knowledge	Graduates at this level will have broad theoretical and technical knowledge of a specific area or a broad field of work and learning
Skills	Graduates at this level will have a broad range of cognitive, technical and communication skills to select and apply methods and technologies to: · analyse information to complete a range of activities · interpret and transmit solutions to unpredictable and sometimes complex problems · transmit information and skills to others
Application of knowledge and skills	Graduates at this level will apply knowledge and skills to demonstrate autonomy, judgement and defined responsibility: · in contexts that are subject to change · within broad parameters to provide specialist advice and function

Competency-based training focuses on students' ability to achieve learning outcomes to a specified level (ie Competent). Once the students attain this level, they receive a grade of Competent .

The assessment grades are given at USA Grading Criteria together with Australian Competency based training system,.

The assessment tasks for advanced diploma level is focussed on operate within broadly-defined technical & business environments, and undertake a wide range of functions and responsibilities and specifically in its application, adaptation or management, in a variety of contexts.

Their expertise often lies in familiarity with the current state of development of a business system or technology domain and most recent applications of the business and technology

The assessment tasks are designed for assessing the activities, knowledge & skills that combines the need for a strong understanding of practical situations and applications, with the intellectual challenge of keeping abreast of leading-edge developments as a specialist in a technology or business domain and how these relate to established practice.

The assessment tasks are focussed on students' understanding of the specific interactions with other aspects of an overall operating context and for managing the contributions of their specialist work to a broader engineering or business system or solution. The students' focus on sustainable solutions and practices which optimise technical, social, environmental and economic outcomes within the technology or business practice domain and understanding of the standards and codes of practice that underpin the technology & business practice domain and ensure that the performance outcomes comply with statutory requirements & relevant code of practice of business systems as well as implementation, operation, quality assurance, safety, management, and maintenance of projects, plant, facilities, or processes within specialist practice area(s) of the technology & business practice domain

IQY Technical College uses continuous monitoring & assessment methods and tasks to evaluate the student's competence in a particular unit of competence/qualification. All assessments tasks are designed in accordance to the relevant training package specifications of a qualification/unit of competence and may include assignments, practical assessments, presentation, project work, written tests or other methods deemed appropriate to assess students' competence in carrying out tasks to a required standard.

Especially assignments/ project works are continually assessed throughout the course as the students progress in their study. For a limited circumstances, formal written tests are conducted.

ASSESSMENT POLICY OF PROFESSIONAL DIPLOMA COURSES IN ENGINEERING,MANAGEMENT & INFORMATION TECHNOLOGY

The assessment tasks are designed for assessing the followings

Graduates at this level will have broad and coherent knowledge and skills for professional work and/or further learning

Knowledge	Graduates at this level will have broad and coherent theoretical and technical knowledge with depth in one or more disciplines or areas of practice
Skills	Graduates at this level will have well-developed cognitive, technical and communication skills to select and apply methods and technologies to: · analyse and evaluate information to complete a range of activities · analyse, generate and transmit solutions to unpredictable and sometimes complex problems · transmit knowledge, skills and ideas to others
Application of knowledge and skills	Graduates at this level will apply knowledge and skills to demonstrate autonomy, well-developed judgement and responsibility: · in contexts that require self-directed work and learning · within broad parameters to provide specialist advice and functions

The assessment grades are given at USA Grading Criteria together with Australian Competency based training system, Test / Examination & Project Assignments are utilized in assessment tasks.

The assessment tasks are designed to assess the candidate's capability to take responsibility for engineering / business / IT projects and programs in the most far-reaching

sense. This includes the reliable functioning of all materials, components, sub-systems and technologies used; their integration to form a complete, sustainable and self-consistent system; and all

interactions between the technical system and the context within which it functions. The latter includes understanding the requirements of clients, wide ranging stakeholders and of society as a whole; working to optimise social, environmental and economic outcomes over the full lifetime of the product or program; interacting effectively with other disciplines, professions and people; and ensuring that their work contribution is properly integrated into the totality of the undertaking.

The assessment tasks are designed for candidate's capability in interpreting technological possibilities to society, business and government; and for ensuring as far as possible that policy decisions are properly informed by such possibilities and consequences, and that costs, risks and limitations are properly understood as the desirable outcomes.

The assessment activities are also focussed on bringing knowledge to bear from multiple sources to develop solutions to complex problems and issues, for ensuring that technical and non-technical considerations are properly integrated, and for managing risk as well as sustainability issues. While the outcomes of engineering have physical forms, the work of

The students' advancement of technologies and with the development of new technologies and their applications , new business practice through innovation, creativity and change. Professional Engineers may conduct research concerned with advancing the technology & business practice and with developing new principles and technologies within a broad technology & business practice discipline.

Explain the contents in Day 9 Session 2 Folder

Day 10 Session 1

Learning Environment

By- Dr Kyaw Naing

Reference

ED 407 Learning Environment

http://www.filefactory.com/file/31o7fw99ux7l/ED%20407%20Learning%20Environment.zip

9.2.2 Programme Objectives

i. State the vision and mission of the Technological Institutions.

ii. Describe the Programme Objectives and state where they are published.

iii. Describe how the Programme Objectives are consistent with the vision and mission of the Technological Institutions and stakeholder requirements.

iv. Describe the processes used to establish and review the Programme Objectives, and the extent to which the programme's various stakeholders are involved in these processes.

v. Describe how the Technological Institutions ensures achievement of the Programme Objectives.

vi. Describe the ongoing evaluation of the level of achievement of these objectives, and the extent to which the programme's various stakeholders are involved in these processes.

vii. Describe how the results obtained from evaluation are being used to improve the effectiveness of the programme.
(Myanmar Engineering Council)

Evaluation/Obtain the Result----

Individual Teacher/Class-------- Course—Department--- The whole Institute

How to assess the learning environment is the main thing to assess the academic position and operation condition of the whole institution.

Assessing And Improving Classroom Environment

STUDENTS SPEND a vast amount of time, in the order of 15,000 hours, in school classrooms during primary and secondary schooling. Consequently, the quality of life in these classrooms is of great importance and students' reactions to and perceptions of their school experiences are significant.

Teachers often speak of a classroom's climate, environment, atmosphere, tone, ethos or ambience and consider it to be both important in its own right and influential in terms of student learning. It would be rare, however, for science and mathematics teachers to include classroom environment measures among their evaluation procedures. Typically, teachers concentrate almost exclusively on the assessment of academic achievement, and devote little attention to factors which might be related to their students' performance.

ASSESSMENT OF CLASSROOM ENVIRONMENT

DESPITE THE FACT that the original form of several instruments measuring student perceptions of classroom environment has proved useful for various research purposes, experience has shown that many teachers would prefer an assessment method which is more economical in terms of the time required for administration and scoring.

A METHOD FOR IMPROVING CLASSROOM ENVIRONMENT

FRASER (1981) has proposed a simple approach by which teachers can use information obtained from classroom environment questionnaires to guide attempts to improve their classrooms. The basic approach involves two aspects. First, assessments of student perceptions of both their actual and preferred classroom environment are used to identify differences between the actual classroom environment and that preferred by students. Second, strategies aimed at reducing these differences are implemented. An example of the use of these methods in a secondary science class is described by Fraser and Fisher (1986) and an example involving a mathematics class is contained in Fraser, Malone and Neale (1989).

1. **Assessment.**

2. **Feedback.**

3. **Reflection and Discussion.**

4. **Intervention.**

5. Reassessment.

Scales

- My Class Inventory—Page 49+50
- Science Laboratory Environment Inventory—Page 55+61-64
- Items in the What is Happening in this Class? Questionnaire

Student Cohesiveness

1. I make friendships among students in this class.
2. I know other students in this class.
3. I am friendly to members of this class.
4. Members of the class are my friends.
5. I work well with other class members.
6. I help other class members who are having trouble with their work.
7. Students in this class like me.
8. In this class, I get help from other students.

Teacher Support

9. The teacher takes a personal interest in me.
10. The teacher goes out of his/her way to help me.
11. The teacher considers my feelings.
12. The teacher helps me when I have trouble with the work.
13. The teacher talks with me.
14. The teacher is interested in my problems.
15. The teacher moves about the class to talk with me.
16. The teacher's questions help me to understand.

Involvement

17. I discuss ideas in class.
18. I give my opinions during class discussions.
19. The teacher asks me questions.
20. My ideas and suggestions are used during classroom discussions.
21. I ask the teacher questions.
22. I explain my ideas to other students.
23. Students discuss with me how to go about solving problems.
24. I am asked to explain how I solve problems.

Investigation

25. I carry out investigations to test my ideas.
26. I am asked to think about the evidence for statements.
27. I carry out investigations to answer questions coming from discussions.
28. I explain the meaning of statements, diagrams and graphs.
29. I carry out investigations to answer questions which puzzle me.
30. I carry out investigations to answer the teacher's questions.
31. I find out answers to questions by doing investigations.
32. I solve problems by using information obtained from my own investigations.

Task Orientation

33. Getting a certain amount of work done is important to me.
34. I do as much as I set out to do.
35. I know the goals for this class.
36. I am ready to start this class on time.
37. I know what I am trying to accomplish in this class.
38. I pay attention during this class.
39. I try to understand the work in this class.
40. I know how much work I have to do.

Cooperation

41. I cooperate with other students when doing assignment work.
42. I share my books and resources with other students when doing assignments.
43. When I work in groups in this class, there is teamwork.
44. I work with other students on projects in this class.
45. I learn from other students in this class.
46. I work with other students in this class.
47. I cooperate with other students on class activities.
48. Students work with me to achieve class goals.

Equity

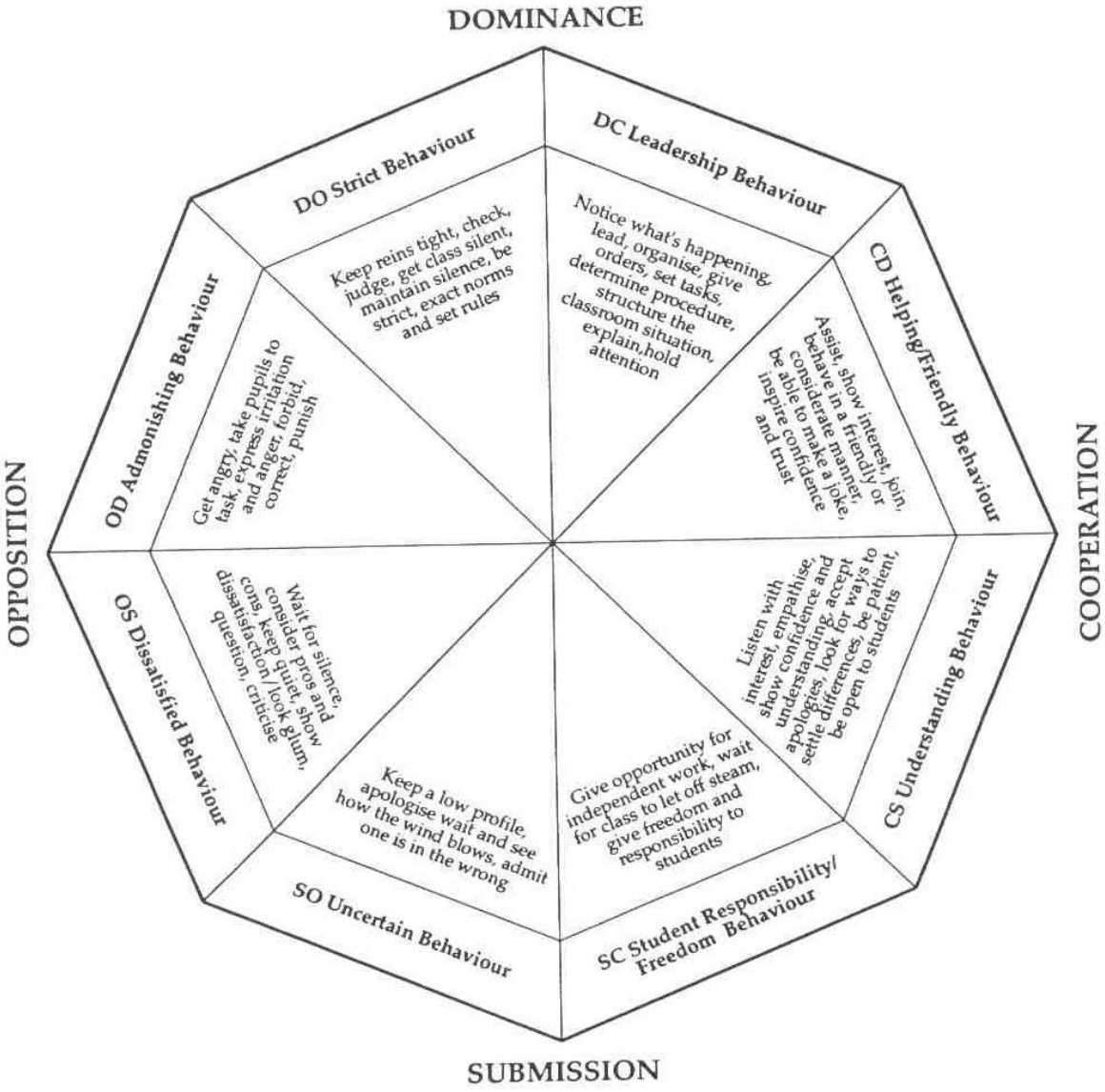
49. The teacher gives as much attention to my questions as to other students' questions.
50. I get the same amount of help from the teacher as do other students.
51. I have the same amount of say in this class as other students.
52. I am treated the same as other students in this class.
53. I receive the same encouragement from the teacher as other students do.
54. I get the same opportunity to contribute to class discussions as other students.
55. My work receives as much praise as other students' work.
56. I get the same opportunity to answer questions as other students.

Page 29 of Day 10 Session 1/ ED 407 Learning Environment/ 12.Learning Environment.pdf
Page 10--- Learning Environment Measurement Scales

Page 29 of Day 10 Session 1/ ED 407 Learning Environment/ 12.Learning Environment.pdf
Page 38--- Learning Environment Measurement Scales—Contructivist Learning Environment Survey

QUESTIONNAIRE ON TEACHER INTERACTION (QTI)

In order to facilitate hand scoring, the items are arranged in cyclic order and in blocks of four. Items 1 to 24 in the Supplement assess the four scales called *Leadership* behaviour, *Understanding* behaviour, *Uncertain* behaviour and *Admonishing* behaviour, whereas Items 25 to 48 assess the scales *Helpful/Friendly* behaviour, *Student Responsibility and Freedom* behaviour, *Dissatisfied* behaviour and *Strict* behaviour.


DOMINANCE
DO Strict Behaviour
DC Leadership Behaviour
CD Helping/Friendly Behaviour
COOPERATION
OD Admonishing Behaviour
OPPOSITION
OS Dissatisfied Behaviour
CS Understanding Behaviour
SO Uncertain Behaviour
SC Student Responsibility/ Freedom Behaviour
SUBMISSION
Keep reins tight, check, judge, get class silent, maintain silence, be strict, exact norms and set rules
Notice what's happening, lead, organise, give orders, set tasks, determine procedure, structure the classroom situation, explain, hold attention
Assist, show interest, join, behave in a friendly or considerate manner, be able to make a joke, inspire confidence and trust
Get angry, take pupils to task, express irritation and anger, forbid, correct, punish
Listen with interest, empathise, show confidence and understanding, accept apologies, look for ways to settle differences, be patient, be open to students
Wait for silence, consider pros and cons, keep quiet, show dissatisfaction / look glum, question, criticise
Give opportunity for independent work, wait for class to let off steam, give freedom and responsibility to students
Keep a low profile, apologise wait and see how the wind blows, admit one is in the wrong

	Never Always	Teacher Use
1. This teacher talks enthusiastically about her/his subject.	0 1 2 3 (4)	Lea
2. This teacher trusts us.	0 1 2 (3) 4	Und
3. This teacher seems uncertain.	0 (1) 2 3 4	Unc
4. This teacher gets angry unexpectedly.	(0) 1 2 3 4	Adm
5. This teacher explains things clearly.	0 1 2 (3) 4	Lea
6. If we don't agree with this teacher, we can talk about it.	0 1 (2) 3 4	Und
7. This teacher is hesitant.	(0) 1 2 3 4	Unc
8. This teacher gets angry quickly.	0 (1) 2 3 4	Adm
9. This teacher holds our attention.	0 1 2 (3) 4	Lea
10. This teacher is willing to explain things again.	0 1 (2) 3 4	Und
11. This teacher acts as if she/he does not know what to do.	0 1 (2) 3 4	Unc
12. This teacher is too quick to correct us when we break a rule.	0 1 (2) 3 4	Adm
13. This teacher knows everything that goes on in the classroom.	0 1 (2) 3 4	Lea
14. If we have something to say, this teacher will listen.	0 1 2 (3) 4	Und
15. This teacher lets us boss her/him around.	0 (1) 2 3 4	Unc
16. This teacher is impatient.	0 (1) 2 3 4	Adm
17. This teacher is a good leader.	0 1 2 (3) 4	Lea
18. This teacher realises when we don't understand.	0 1 2 3 (4)	Und
19. This teacher is not sure what to do when we fool around.	(0) 1 2 3 4	Unc
20. It is easy to pick a fight with this teacher.	0 1 2 3 4	Adm
21. This teacher acts confidently.	0 1 2 3 (4)	Lea
22. This teacher is patient.	0 1 2 (3) 4	Und
23. It's easy to make a fool out of this teacher	(0) 1 2 3 4	Unc
24. This teacher is sarcastic.	0 (1) 2 3 4	Adm

For Teacher's Use Only: Lea 19 Und 17 Unc 4 Adm 7

6.1 The Nature of the Curriculum

Interviews with teachers and students in both countries indicated that the nature of the curriculum could be a major influence on the learning environment created by teachers in each country. The story of a Taiwanese classroom describes a teacher-centered lesson in which students appear to play a fairly passive role. Without exception, the classes observed by the researcher in Taiwan were teacher-centered and, whilst the roles of the students varied between teachers, there were generally few opportunities for discussions or questions. Interviews with teachers revealed that the teacher-centered approaches were largely a result of the examination-driven nature of the curriculum:

The story describes the teacher's battle to fit the required content into each lesson and the desire of the teacher to avoid giving the students additional work. The science curriculum (for both biology and physics) is presented to students in the form of textbooks, and examinations are based on the content of these. As a result, it is important for teachers to cover all areas. Teachers whom were interviewed explained that teacher-centered methods were the most practical way to cover the content in the given time frame and diversions (described in the story as student questions referring to real-life situations) are often not possible given the time constraints:

In contrast, the Australian teachers whom were interviewed generally expressed a desire to use methods that were not teacher-centered in their science classes. Their reasons were varied, but generally it was felt that, by using a variety of approaches, students would be better able to develop a range of abilities in their students. In many cases, these teachers claimed that they were encouraged, through professional development days and by other staff, to use a variety of methods in their teaching.

Rote learning was frowned upon by many of the teachers interviewed in Australia and one commented that "developing the students' ability as learners is more important than the acquisition of content knowledge" (Interview, Teacher 1, p. 2). In general, these teachers were of the opinion that, by incorporating a range of teaching styles, they were more likely to cater for the range of learning styles that could be present in their class. In addition, they felt that their students were more likely to understand concepts if they were actively involved in their learning.

6.4 Questioning Techniques

Both stories describe the use of questioning in the classrooms, but it appears that the techniques used were different for the two countries. The question-and-answer session described in Australia depicts a teacher posing questions to the whole class and selecting only from students with their hands raised. Interviews with teachers indicated that they were careful not to damage the self-esteem of students and to ensure that the student's pride amongst his/her peers was protected. According to student interviews, many students were reluctant to raise their hands unless they were reasonably sure of the answer, while others made a point of never answering questions in class. Students explained that ridicule from peers was possibly the main reason for their reluctance to answer questions: "I usually don't like putting my hand up. ... If I get the answer wrong, then I get embarrassed [because] other kids in the class could laugh at me" (Australian Student A).

In contrast, teachers whom were observed in Taiwan (described in the story in Figure 2) randomly select students using the students' identity numbers (stitched above the pocket on their school shirts) rather than their names. The selected student stood up to answer the question and, if the answer was wrong, the teacher bluntly told him or her so. The student then either tried again or sat down and listened to the answer of another student. Interviews with students revealed that they were not uncomfortable with this method of questioning and that questions were used as a means of gauging what students need to know or what they do not understand to enable them to improve and learn. As one student put it, "When he [the teacher] teaches important content, he checks that we understand. So he asks us questions" (Taiwanese Student, Interview 2, Item 23).

Day 10 Session 2

Change Management

By- Daw Hla Myat Mon

References

University of Technology Master of Business Change Management References

& experience in University of Technology Sydney--- Change Management in Business

&

By- Dr Kyaw Naing—Educational Leadership & Educational Change Management.

Leadership

● Management has its start point in the organisation. It is taken to involve the conduct and evolutionary development of an institution and its staff by means of rational decisions and performance monitoring underpinned by information systems, policies, procedures and plans. ● Leadership has a start point in the people within the organisation. It is concerned with getting their willing cooperation and contribution towards organisational goals and with meeting their needs as individuals.

● Just as 'managers' exist at all levels of the organisation so, too, can leaders be found at all levels. The latter do not necessarily depend on a formal role position. ● Both activities, leading and managing, are required. The balance between each activity varies both from time to time and also from the position of an individual within an organisation.

Both activities, leading and managing, are required. The balance between each activity varies both from time to time and also from the position of an individual within an organisation. 2 Leadership issues: raising achievement

● Whether one activity subsumes the other or whether management and leadership exist as poles of activity along a continuum does not have any bearing on the argument presented.

● Incorporation and the essential need to run an efficient and effective organisation have made it inevitable that there has been an emphasis on the top levels of colleges and upon the managerial activities of senior management. Leadership has

always been required at that level. Our interest lies in improving the impact of leadership activity at lower levels in colleges.

● These lower levels are those at which course organisation and delivery by a group of staff is the key activity. If leadership is to have a more direct impact on student achievement than is the case with the mediated leadership activity of senior post-holders, then this lower level may be the one level to examine in more detail.

Leadership in further education

● clarification of what we mean by leadership, particularly within an educational context

● an outline of a number of models of, or approaches to, leadership

● a description of the key behaviours which are associated with effective leadership

● leadership roles within organisations

● how leadership impacts on student outcomes

Features of leadership

● leadership is a process of influencing

● leadership can be exercised by people in organisations who do not possess formal authority

● leadership implies followers

● leadership involves the achievement of goals or objectives

What does leadership look like?

Instructional leadership

It focuses on the development of behaviours that directly influence teachers in their relationships with students and, in particular, the planning and delivery of teaching and learning.

Transformational leadership

Idealised influence – the ability of the leader to gain the trust, respect and support of those being led. This might otherwise be termed charisma which brings it close to the traits concept of leadership.

● Inspirational motivation – the ability to inspire and focus the attention of individuals on the achievement of shared goals, often using imagery and symbols.

● Intellectual stimulation – a culture of challenge and questioning where individuals are constantly encouraged to reassess both ways of working and the values of the organisation including those of the leader.

● Individualised consideration – the support that is available to individuals to allow them to develop in order to meet new challenges and goals.

Moral leadership

Moral leadership is based on the assumption that educational and other organisations operate within a framework of absolute values.

The leader's role is to:

● influence the adoption of a clear set of organisational values

● manage conflict over the interpretation of basic values

● commit others to the values that leaders themselves believe to be good.

Participative leadership

Participative leadership In common with moral leadership, participative leadership emphasises consultation and the importance of the decision-making processes of the group. Unlike moral leadership, however, participation and consultation are usually based on more pragmatic decisionmaking needs rather than on any ideas of 'moral rightness' or 'what ought to be'. The need to establish a sense of ownership of decisions usually underpins use of the model.

Participative leadership can be seen as leading to:

● better quality decisions

● greater consensus and acceptance

● better understanding of the decision by those responsible for implementing it

● the development of decision-making skills throughout the organisation

● enhanced motivation and job satisfaction for staff involved in decision-making

● resolution of conflict and the development of the team. However, participative leadership often results in conflicts associated with:

● the need for consensus and at the same time the need for strong and authoritative leadership

● the need to consult and involve while at the same time making decisions which are timely and efficient in terms of the resources used

● the need to reconcile accountability for the implementation of externally derived policy with the values and systems orientation of staff within a school or college

Managerial leadership

This model of leadership is strongly evidenced in further education.

The model is sometimes referred to as transactional or functional and is widely associated with writer John Adair.

Teams and teamworking are important in the model, and the leader's primary responsibility is to balance the needs of the team, the task on which the team is engaged, and the individual needs of team members.

The leadership role is strongly associated with the team leader rather than any of the other team members and there is therefore an emphasis on leader training and skills development.

Contingent leadership

Closely related to the managerial leadership model is contingent or situational leadership. Leadership is viewed as situationally focused – in other words

variations in the contexts for decision-making require different leadership responses. Leaders therefore need to master a range of leadership practices including the development of different leadership styles that can be adopted in varied settings. Organisational learning The concept of the learning organisation developed during the late 1980s and early 1990s. It is often associated with the work of Peter Senge. Senge's view was that just as individuals have the capacity to continually learn, so too do organisations. This new type of organisation requires a new type of leadership – one in which the purpose of leadership is to build organisational capacity for learning. The leader has three important roles to perform:

● As designer, the leader's role is to design the organisational learning process so that people are able to solve problems and achieve personal mastery. This requires new leadership behaviours including coaching, mentoring and helping others to learn.

● As steward, the leader has a responsibility not only for developing a personal vision for the organisation but ensuring that the vision reflects the common aspirations of others working in it.

● As teacher, the leader's role is not just about coaching and supporting individuals but more importantly about developing 'systemic understanding' – the ability to see how the various parts of the organisation fit together and inter-relate, and how learning can be transferred from one section or from one situation to another (Senge 1990).

LEADERSHIP IN CHANGE MANAGEMENT

A NEW MODEL OF LEADERSHIP

It has been argued that the traditional style of management is inappropriate for today's organisation. A more flexible, responsive leader displaying high trust, participative management styles is needed to replace the autocratic, individualised, competitive leader who was found to be effective in the past (Smith & Hutchinson 1995, 93)

THE MANAGERS

Future TAFE managers need the 'soft' or 'people' skills that have been described by many management theorists (Feuer 1988; Randell 1993; Smith & Hutchinson 1995) according to the participants in this study. Words used by participants to describe these managers included integrity, honesty, sincerity, humbleness, courage, openness, trust, empowering, supporting, developing, empathetic, flexible, team centred, adaptable, encouraging, approachable, fair and ethical.

From management to leadership

The shift from management to leadership has been brought about by the fundamental requirement for people to cope with the management of change. John Kotter (1990) suggested that management is about planning, organising and controlling, whereas leadership is about setting direction, aligning people – and motivating and inspiring them. It is fundamentally about people.

THE MANAGER	THE LEADER
Administers Is a copy Maintains Focuses on systems Relies on control Short-range view Asks how and when Eye on the bottom line Imitates Accepts the status quo Obeys orders without question Does things right Is trained Managers operate within the culture.	Innovates Is an original Develops Focuses on people Inspires trust Long-range view Asks what and why Eye on the horizon Originates Challenges the status quo Obeys when appropriate but thinks Does the right things Learns Leaders create the culture.

The leadership competencies

- First, leaders need to set the direction for the organisation, which incorporates a vision of the future.
- Second, effective leaders are influential examples and role models because they are aware that people are more influenced by what they see than by what they are told.
- Third, they are effective communicators, both in communicating the vision, and also inspiring their people in such a way that it causes an emotional effect.
- Fourth, provided that the leader is convincing, followers will want to be part of the operation and work towards the common goal themselves. This process is one of alignment.
- Fifth, effective leaders bring out the best in people. This involves a holistic approach which embraces motivation, empowerment, coaching and encouragement.
- Sixth, leaders need to be proactive in a situation of continual change. In effect, they become change agents.
- The seventh attribute is the ability to make decisions in times of crisis and for the ambiguous.

These seven competencies, which are discussed in detail in The business of leadership (Hooper and Potter 1997), are the skills required to lead effectively at all levels, in the appropriate style, in order to add value to an organisation. In addition, these competencies enable leaders to make significant improvement to the performance of their organisations.

Effective communications

Part of the process of creating understanding is effective communications. It is particularly difficult when managing change, because leaders are often struggling to clarify their own thinking as well as trying to communicate a clear message. Unless there is clarity of thought, there is a danger that leaders will give a mixed message, which can lead to confusion. The important first step is to have a clear strategy right from the outset. Once the general way forward is clear, it is essential that the senior management team maintain open communications with every individual in that group.

Change Management Approach

Traditional Change Management Approach & Participative Change Management Approach

Read the provided article "Change Management Approach.pdf" & "Helping People Adapt"

TRADITIONAL CHANGE MANAGEMENT APPROACH

For a number of decades the dominant paradigm has been the traditional change management approach. It is best represented by the viewpoint that leaders and managers are solely responsible for making the key decisions within an organisation and are also accountable for ensuring successful change management processes. The focus in the literature is about

managing the transition and specifically overcoming resistance to change (Hay and Hartel, 2000; Maurer 1996; Tichy, 1983; Quinn, 1978; March and Simon, 1958). Senior managers 'worry a lot' about change but too few of these concerns are focused on building rapport with the affected staff. Much of the focus instead is with providing legitimate justification for the need for the change. They avoid dealing with the tougher issues of staff perception of hidden agendas and unsurfaced rationale(s) rooted in self-interest and the exercise of managerial power.

Resistance to change (once seen as inevitable) when manifested can be resolved through a number of mechanisms. Argyris and Kaplan's (1994) study of the implementation of activity based costing identified three processes to overcome barriers to change that exist at the individual, group, intergroup and organisational levels. These included education and training to explain the need for change and reduce fear of the unknown; sponsorship of the process by key individuals who then persuade others; and, alignment of incentives such that systems and structures reward and reinforce effective change.

PARTICIPATIVE CHANGE MANAGEMENT APPROACH

There is a need to alter the approach and shift the focus within the extant literature with its prescriptive edge that attempts to deliver more successful change management and implementation with the concomitant emphasis on identifying and overcoming employee resistance (Waldersee and Griffiths, 1997; Clarke, 1994; Kanter, Stein and Jick, 1992;

EFFECTIVE WAY OF CHANGE MANAGEMENT	Carnall, 1990). The alternative is to involve employees from the beginning by permitting and encouraging active involvement, full participation in and psychological ownership of the change process.

This would act as an effective counterfoil to the shortcomings of management '...failing to communicate a vision, planning problems, not matching vision with processes, not being committed to the change process, failing to lead by example, demonstrating inconsistencies of attitudes to change' (Waldersee and Griffiths, 1997, p. 10).

The first step is to rethink the existing negative notion of resistance. Waddell and Sohal (1998, p. 5) argue that one should consider the utility of resistance in '...injecting energy into the change process' and that it '...encourages the search for alternative methods and outcomes in order to synthesise the conflicting opinions that may exist.' This means that resistance can be a positive force and a critical source of innovation during a change process to ensure that many more possibilities are examined and evaluated closely.[4] What we advocate then is to recast the notion of resistance so that it is viewed instead as the active encouragement of constructive conflict. This avoids what can happen if overt resistance is itself merely resisted and battered down (usually by information overload) by senior managers. This resistance can become more intense and covert, effectively derailing the change process.

The next step is to utilise an action framework that has a collective and collaborative approach to decision-making and the change process. The management role becomes one of facilitation not the usual top-down dictatorial change management decision-making process. The intellectual underpinning for this move comes from action learning and action research methodologies, which are oriented to both change

and learning/research within organisations. They are participative and egalitarian and have a problem/solution orientation that is recursive (cyclic in nature). As a result they are empowering, engender greater ownership of the outcome(s) and are also reflexive, flexible and responsive to the organisational context and constraints (Sankaran et al., 2001).

Under this approach the affected employees form groups that are empowered to consider, debate alternatives, construct outcome(s) and actively engage in and manage the change process from both a bottom up and a top down perspective. Senior managers and employees are equal and active participants in the change process. The result is a more effective organisational change with enhanced employee engagement in, and ownership of, the outcome(s) and minimising, if not eliminating, resistance.

FURTHER READINGS & TEXTBOOKS

Textbook

ED 308 Change Management
http://www.filefactory.com/file/4cxrjx86buot/n/9_Leadership_Change_Management_zip

ED 402 Educational Leadership

http://www.filefactory.com/file/68h2rewfq7jx/ED%20402%20Educational%20Leadership.zip

COURSE OUTCOME & FURTHER TRAINING

After completion of this training course, IQY Technical College (Accredited by Singapore Institute of Engineering Technologists) Diploma in Technical Teaching (Training, Assessment & Learning Management) can be completed as well as the award from it's affiliated overseas university.

The components of **Professional Diploma in Technical Teaching (Training, Assessment & Learning Management)** which are included in Diploma in Technical Teaching (Training, Assessment & Learning Management)

Level 1-Educational Theories , Teaching Pedagogies & Training and Assessment Practice

- Part (2A) Basic Teaching Practicum Preparation
- Part (2B) Training &Assessment Practice

Level 2-Adult Vocational Education

- Part (2) Vocational Education & Training Practice

Level 3-Training Authorities Accreditation Compliances

- Part (2) Myanmar Engineering Council's Accreditation Compliance Practice

By completing the educational theory subjects at Level 1 Part 1, Level 2 Part 1, Level 3 Part 1 and Level 4 of Professional Diploma in Technical Teaching (Training, Assessment & Learning Management), the professional diploma can be completed.

Professional Diploma in Technical Teaching (Training, Assessment & Learning Management)

www.highlightcomputer.com/ProfDipTechTchg.pdf

Objective of the course

This Professional Diploma in Technical Teaching (Training, Assessment & Learning Management) is designed as Teachers Education Professional Development for teachers in Government Technical Colleges , Technological Universities and other Vocational Education and Training Institutions in Myanmar to upgrade their skills and knowledge in training and assessment, curriculum design and development, management of technical training institutions, adult and vocational education and training ,assessment validation and current accreditation rules and requirements of Myanmar Engineering Council as well as current training and assessment practices of overseas industrialized countries.

Learning Outcomes

After completion of the levels of the training programs, the students should be able to

- Understand adult learning principles in technical education and training contexts

- Apply the skills in training, assessment, course development, curriculum development, learning management and management of technical training institutions.
- Understand the accreditation requirements of Myanmar Engineering Council in accredited engineer, technologist and technician education & prepare for the compliance processes.
- Understand the technology, science and mathematics teaching & educational pedagogies principles of outcome based education and effectively utilize them in the workplace
- Provide effective work-based learning & career development for the working people in industries and apply the various ways of assessing the competences

Components of the course

- Educational theories ,educational technology, teaching and learning, teaching and measuring.
- Lesson planning, interpreting curriculums, class room management, instruction and assessment design, training principle, competency based training and assessment integrated the competencies of Australian Training and Assessment (TAE40110) course
- Management of educational establishment in line with the accreditation requirements of Myanmar Engineering Council by customizing the competencies in Australian Vocational Education and Training Diploma (TAE50111) to be relevant to the requirements of Myanmar Vocational Education and Training .
- Postgraduate level educational knowledge related to Learning Technology, Technology in classrooms, educational leadership, leadership and change management , computer supported learning and distance education,
- Teaching practicum preparation at different levels of training

Study Areas & Levels of Training

Level 1-Educational Theories , Teaching Pedagogies & Training and Assessment Practice

Part (1) Educational Theoretical Subjects

- ED 101 Theory of Education
- ED 102 Education Technology
- ED 103 Teaching Practice
- ED 104 Lesson Planning
- ED 105 Principle of Learning
- ED 106 Interpreting Curriculums

- ED 107 Teaching & Learning
- ED 201 Class Room Management & Teaching

Part (2A) Basic Teaching Practicum Preparation

ED101P-Teaching Support

ED102P- Application of Information Technology in School /Vocational Education

ED103P- Classroom Management

ED104P- Teaching Portfolio

ED105P- Inclusive Teaching

ED106P- Subject Area Knowledge

ED107P- Theory of Education, Educational Technology & Teaching Practice

ED107PA-Theory of Education

ED107PB-Education Technology

ED107PC-Teaching Practice

ED107PD-Lesson Planning

ED108P- Curriculum Study , Teaching & Learning

ED108PA-Principle of Learning

ED108PB-Interpreting Curriculums

ED108PC-Teaching & Learning

Part (2B) Training &Assessment Practice (Certificate IV in Training & Assessment TAE40110)

- ED111P Learning Program Design & Development Practice

(TAEDES401A Design and develop learning programs)

- ED112P Assessing the needs of trainees

(TAEDES402A Use training packages and accredited courses to meet client needs Delivery)

- ED113P Group based learning

(TAEDEL401A Plan, organise and deliver group-based learning)

- ED114P Workplace Assessment

(TAEDEL402A Plan, organise and facilitate learning in the workplace Assessment)

- ED115P Assessment Planning

  (TAEASS401B Plan assessment activities and processes)

- ED116P Competency Assessment

  (TAEASS402B Assess competence)

- ED117P Assessment Validation

  (TAEASS403B Participate in assessment validation)

- ED118P Work skills Instruction

  (TAEDEL301A Provide work skill instruction)

- ED119P Educational Presentation

  (BSBCMM401A Make a presentation)(TAEASS301B Contribute to assessment

  Level 2-Adult Vocational Education

  Part (1) Adult Vocational Education Theoretical Subjects

- ED 401 Adult Learning Technology
- ED 202 Curriculum & Design
- ED 205 Teaching & Measuring
- ED 206 Designing Instructions & Assessment
- ED 405 Training Principle

  Part (2) Vocational Education & Training Practice (Diploma in Vocational Education & Training TAE50111)

- ED201P-Advanced Assessment Practice
  (TAEASS501A: Provide advanced assessment practice)

- ED202P-Assessment Development
  (TAEASS502B: Design and develop assessment tools)

- ED203P-Training Facilitation

  (TAEDEL502A: Provide advanced facilitation practice)

- ED204P-Learning Strategies

  (TAEDES501A: Design and develop learning strategies)

- ED205P- Language Literacy & Numeracy

  (TAELLN401A: Address adult language, literacy and numeracy skills)

- ED206P-Continuing Professional Development
  (TAEPDD501A: Maintain and enhance professional practice)

- ED207P Learning Resources Design & Development

  (TAEDES502A: Design and develop learning resources)

- ED208P Organizational Training Needs Analysis

  (TAETAS501B: Undertake organisational training needs analysis)

- ED 404 Educational Research (Part 1)

  (TAERES501A: Apply research to training and assessment practice)

- ED209P- Training Program Evaluation

  (TAEDES505A: Evaluate a training program)

Level 3-Training Authorities Accreditation Compliances

Part (1) Educational Leadership Subjects

- ED 402 Educational Leadership
- ED 301 Educational Policy (Myanmar Engineering Council Accreditation Requirements)
- ED 308 Change Management
- ED309 Educational Communication
- ED 407 Learning Environment
- ED311 Outcome based Education

  Part (2) Myanmar Engineering Council's Accreditation Compliance Practice

- ED301P- Curriculum design for accreditation compliance
- ED302P-Overall accreditation and compliance practice

Level 4-Specialized Teaching Areas

- ED 308 Computer Supported Learning & Distance Education
- ED 304 Maths Teaching
- ED 305 Science Teaching

- ED 306 Technology Teaching
- ED 404 Educational Research (Part 2)
- ED310 Learning Technology I & II