Training Manual

ICT to Enhance Learning & Teaching

Compiled by

World Bank-Higher Education for the Twenty First Century (HETC) Project
&
University Grants Commission

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ICT to enhance Learning & Teaching

for

Academic Staff

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Commissioned Resource Persons

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Preface

Human Resource Development of the University System is one of the statutory responsibilities of the University Grants Commission (UGC) and also a key component of the Higher Education for the Twenty First Century (HETC) Project (2011-2016), the second phase of World Bank assistance provided for higher education sector in Sri Lanka. The UGC being the apex body of the university system bears the responsibility of providing opportunities for growth and career development to as many as possible through in-service training. In-service training for all categories of staff is vitally important not only to impart specific knowledge and skills required to perform in the employee's assigned tasks but also to promote right attitudes and behavioral attributes such as allegiance, commitment, initiative, compliance with codes of practices and ethics, which are indispensible elements required for improving the productivity of employees and that of the entire system.

In executing its mandatory role, the UGC has established Staff Development Centers through the Commission Circulars No. 820 of 20th February 2003 and expanded and strengthened the role of SDCs through the UGC Circular 937 of 10th November 2010. The UGC is providing additional funds beginning from 2011 for improving physical and human resources and expanding the scope of continuing education programmes. This initiative has been assisted by the WB-HETC Project (2011-2015) commencing from 2011.The -HRD-ST sub-project under the direction of the Standing Committee on Staff Development of the UGC has developed a comprehensive programme aimed at human resources development of universities, covering academic and other staff (i.e. senior administrative staff, executive staff, technical staff, non-academic support staff, etc.).

The aim of the UGC-HETC joint endeavor is to design and develop a series of Training Programmes and Manuals on diverse topics relevant to the staff of higher management, academic, executive and non-academic categories. The Training programmes and manuals are developed by the identified resource persons in close liaison and consultation with Professor Harischandra Abeygunawardena, Chairman of the Standing Committee on Staff Development of the UGC and Professor Lalith Munasinghe, Consultant of the HETC Project. All manuals are approved by the UGC for the use in the Staff Development Centers of all Universities.

This **Training Manual on ICT to Enhance Learning & Teaching (CPD/Academic/12)** was developed by Dr. Rohana B. Marasinghe as a commissioned assignment and would provide details of the prescribed training course. They will also act as training guides for prospective trainers of all universities.

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CONTENTS

1.	**Module Title**	ICT to Enhance Learning & Teaching
2.	**Module Rationale**	Last few decades, different disciplines have integrated Information and Communication Technologies (ICT) at varying levels of successes and education is not an exception. This resulted to develop of numerous software/tools to enhance Learning/Teaching (L/T). However, the conventional university education in Sri Lanka has not taken its full advantage due to number of reasons. The lack of education and training was identified as one main reason. In this context, the module on *ICT to Enhance Learning/Teaching* was developed with the intention to help/guide people those who involved in university staff development/training activities.
3.	**Prerequisites and Co-requisites**	Participants need to have basic competencies to use M/S office (eg. Word, PowerPoint) packages together with web browsing and internet search capabilities. Prerequisite knowledge on educational theories would have additional advantage.
4.	**Module designation**	An interactive, blended learning design
5.	**Module Aims and Objectives**	At the end of the sessions, the participants should be able to identify the useful elements of Information and Communication Technologies (ICT) to foster their Learning/Teaching.

6.	**Learning Outcomes**	Participants should be able to,
		• define the term ICT and identify key elements
		   • review ICT in the context of L/T
		   • identify major stages in L/T and suggest a way 'framework' to

		work on integrating ICT to L/T activities
		• review different terms associated with eLearning
		• classify different software associated with eLearning
		• describe the term LMS
		• identify common features of LMS software
		• classify LMS software
		• describe Moodle software, its features and drawbacks
		• describe Blaokboard software, their features and drawbacks
		• describe Web 2.0 technologies and how to use them in education
		• describe SoSo, and MoSoSo software and list examples
		• explain the term 'Plagiarism' and describe instances where plagiarism occurs
		• identify mechanism to prevent plagiarism
		• provide examples of plagiarism detecting software
		• explain how to use software, other than plagiarism preventing software, (e.g. referencing software) in preventing plagiarism
7. **Assessment Strategy**		Peer assessment using rating scale followed by facilitator verification.

8. **Syllabus**		• Introduction
		  o What is ICT and how to use ICT to enhance L/T
		  o Review ICT in the context of L/T
		  o A 'framework' to work on integrating ICT to L/T
		• "eLearning"
		  o Review different terms associated with eLearning
		  o Classify softwares associated with eLearning
		• LMS
		  o LMS software and their features
		• Open source LMS software: Moodle
		• Commercial LMS software: Blackboard
		• Web 2.0 technologies and L/T
		  o Web 2.0
		  o Social Softwares (SoSo)
		  o Mobile Social Softwares (MoSoSO)
		• Preventing Plagiarism

	o Plagiarism detecting software o Other software which help in preventing plagiarism (e.g.Referencing software) • Summary and future directions
9. Bibliography	Benjamin, S., Robbins, I. & Kung, S. (2006). Online resources for assessment and evaluation. *Academic Psychiatry*, **30**, 498 -504. Lewis, B., MacEntee, V., DeLaCruz, S., Englander, C., Jeffrey, T., Takach, E., Wilson, S., & Woodall, J. (2005). Learning management systems comparison. *Proceedings of the 2005 Informing Science and IT Education Joint Conference*. Available at: (*http://proceedings.informingscience.org/InSITE2005/P03f55Lewis.pdf*) Brandl, K. (2005). Are you ready to "Moodle?" *LLT Language Learning & Technology* 9 (2). Available online at: (*http://llt.msu.edu/vol9num2/review1/*) Watson, D.E. (1990) Blackboard Architectures and Applications, Edited by V. Jagannathan, Rajendra Dodhiawala, and Lawrence S. Baum (Academic Press), ACM SIGART Bulletin, v.1n.3, p.19-20, Oct. Lewis, B., MacEntee, V., DeLaCruz, S., Englander, C., Jeffrey, T., Takach, E., Wilson, S., & Woodall, J. (2005). Learning management systems comparison. *Proceedings of the 2005 Informing Science and IT Education Joint Conference*. Available at (*http://proceedings.informingscience.org/InSITE2005/P03f55Lewis.pdf*) Brandl, K. (2005). Are you ready to "Moodle?" *LLT Language Learning & Technology* 9 (2). Available online at: (*http://llt.msu.edu/vol9num2/review1/*) Harden, R.M. (2001). Curriculum mapping: a tool for transparent and authentic teaching and learning, AMEE Guide No. 21: *Medical Teacher*. 23(2).

1. **Learning Outcomes**

After successfully completing the session the participants should be able to,

- define the term ICT and identify key elements of ICT
- review ICT in the context of Learning/Teaching (L/T)
- identify major/key stages in L/T and
- suggest a way ('framework') to work on integrating ICT to enhance L/T activities

2. **Lecture Outline**

- What is ICT and how effectively use ICT
- ICT in Learning and Teaching
- Basic stages in L/T
- A "Framework" to integrate ICT to L/T

3. **Learning/Teaching Resource**

    a. **Lecture Notes**

None

    b. **Other Teaching materials (if any)**

Web resources: all the resources used in the module will be from freely available Internet resources. However, the facilitator should be mindful that they are subjected to the copyright laws.

    c. **Activities**

  i. **In Class**

Learning activity 1 (**Small Group Discussion**)**:** First, the participants will be asked to perform an Internet search to review numerous definitions for the term Information and Communication Technologies (ICT). Subsequently, participants will be asked to form a small group to discuss different definitions they encountered. They also expected to identify key elements which constitute the term ICT. Finally, the participants will be asked to review ICT (and key elements identified) in the context of education (L/T).

Learning environment: This activity can be done in face-to-face (e.g. computer laboratory) or at a distance (e.g. Video Conferencing). The participants need to have an access to a computer which is connected to the Internet. Facilitator needs to create a learning group. In the beginning, participants could work individually (on their own) but later they are expected to discuss as a group. Moreover, facilitator may need to guide participants to use Internet search engines such as Google.

Possible learning outcomes:

Some examples of the definitions for ICT.

1. ICT (information and communications technology - or technologies) is an umbrella term that includes any communication device or application, encompassing: radio, television, cellular phones, computer and network hardware and software, satellite systems and so on, as well as the various services and applications associated with them, such as videoconferencing and distance learning (*http://searchcio-midmarket.techtarget.com/sDefinition/0,,sid183_gci928405,00.html*)

2. ICT covers any product that will store, retrieve, manipulate, transmit or receive information electronically in a digital form. For example, personal computers, digital television, email, robots. So ICT is concerned with the storage, retrieval, manipulation, transmission or receipt of digital data. Importantly, it is also concerned with the way these different uses can work with each other (*http://tutor2u.net/business/ict/intro_what_is_ict.htm*)

3. ICTs stand for information and communication technologies and are defined, for the purposes of this primer, as a "diverse set of technological tools and resources used to communicate, and to create, disseminate, store, and manage information (*http://en.wikibooks.org/wiki/ICT_in_Education/Definition_of_Terms*).

Figure 1 depicts the key elements of the term of Information and Communication Technologies ((ICT).
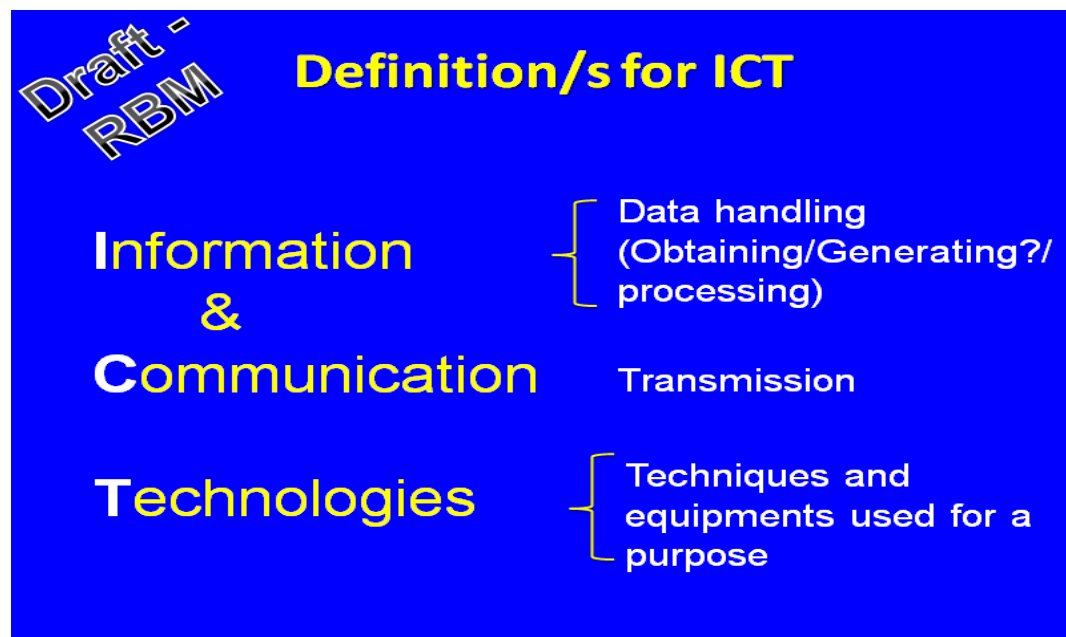
Figure 1: The key elements of ICT (i.e. Information, Communication and Technologies).

Discussion: There are numerous definitions for the term ICT. This activity 1 will facilitate participants to learn such definitions and also to identify common components related to these definitions. These definitions vary with the context they have been used. However, common components which are related to the Information (i.e. data obtaining, generating, handling, processing etc.), Communication (i.e. transmission) and Technologies (i.e. techniques and equipments used for this purpose) can be identifies. It is the facilitator's role to explain the above observation/phenomenon and provide clarifications accordingly. Moreover, facilitator will help participants to review ICT in the context of T/L. For instance, the facilitator will show relevance of key elements of education process as follows.

Table 1: The key elements of ICT and its application in the education

	Key elements	Applications in education
Information	Data obtaining, date generating, data handling and data processing	writing learning objectives, preparing educational material (Audio-Visual) etc.
Communication	Transmission of information	Digital communication of learning resources, Delivering lectures distantly (Video conferencing)
Technologies	techniques and equipments used	Use of CAL material, Video conferencing, podcasting, SMS alert ect.

Learning activity 2 (**Small Group Discussion**)**:** The participants will be asked to identify four major (key) stages of Learning/Teaching process.

Learning environment: Similar to the previous activity this activity can be done in face-to-face (e.g. computer laboratory) or at a distance (e.g. Video Conferencing). The participants need to have an access to a computer which is connected to the Internet. The facilitator needs to create a learning group. In the beginning, participants could work individually but later they are expected to discuss as a group.

Additional (preferably prerequisite) knowledge: The facilitator need to introduce Learning principles and theories if participants do not have sufficient prerequisite knowledge.
Figure 2 will show some examples of learning theories.
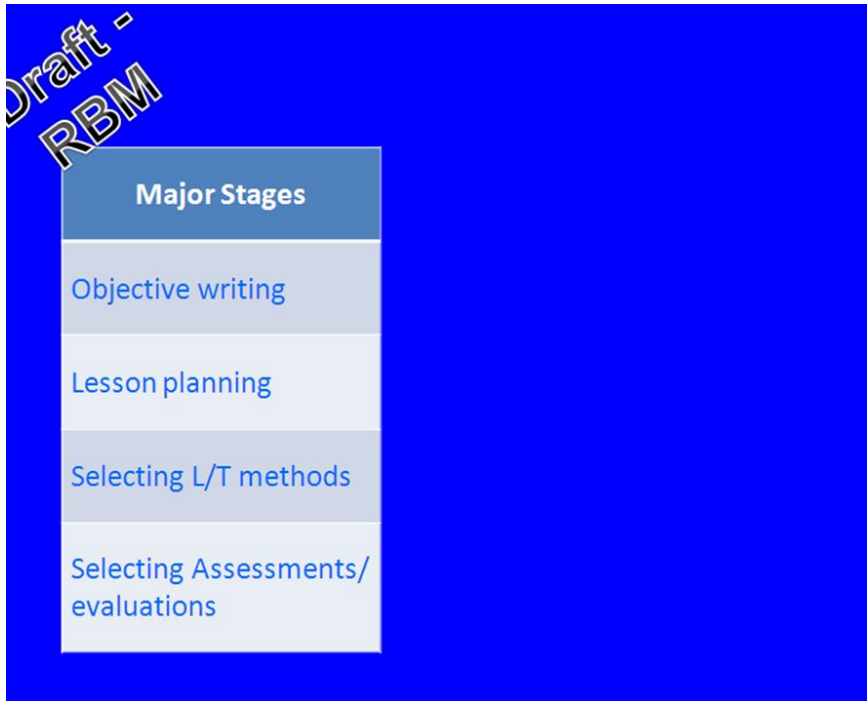

Figure 2: Examples of learning theories

Possible learning outcomes:

(a) Major (key) stages of Learning/Teaching process:

    (1) writing objectives,

    (2) lesson planning,

    (3) selecting L/T methods and

    (4) selecting Assessments/Evaluation.

Following figure shows four major stages of L/T process.

Figure 3: Major stages of Learning/Teaching process

Learning activity 3 (**Small Group Discussion):** The participants will be asked to discuss how ICT could be utilized to enhance L/T practices in relation to above four stages.

Learning environment: Similar to the Activity 2, this activity can also be done in face-to-face (e.g. computer laboratory) or at a distance (e.g. Video Conferencing). The participants need to have an access to a computer which is connected to the Internet. The facilitator need to create a learning group. In the beginning, participants could work individually but later they are expected to discuss as a group.

Possible learning outcomes:
The participants may come up with different ideas. They will probably suggest various softwares available in improving L/T. These software can be grouped under following headings.
Software which can be used,
   (a) in obtaining information
   (b) for organizing information
   (c) to make presentations
   (d) in students assessments and evaluations.

Following figure shows the relevance of software in assisting major stages of L/T.

Major Stages	Software available for,
Objective writing	obtaining information
Lesson planning	organizing information
Selecting L/T methods	making presentations
Selecting Assessments/ evaluations	assessment and Evaluation

Figure 4: the relevance of software in assisting major stages of L/T

Learning activity 4 (**Small Group Discussion**)**:** In this activity, the participants will be asked to form 4 small groups (preferably 8 to 12 people in a group) in order to identify different tools/software available for

(a) obtaining information,
(b) organizing information,
(c) making presentations and
(d) doing assessment and evaluations.

At the end of this activity, participants need to make a presentation preferably using PowerPoint.

Learning environment: Similar to the other activities, this activity can also be done in face-to-face (e.g. computer laboratory) or at a distance (e.g. Video Conferencing). The participants need to have an access to a computer which is connected to the Internet. Facilitator needs to create a learning group. In the beginning, participants could work individually but later t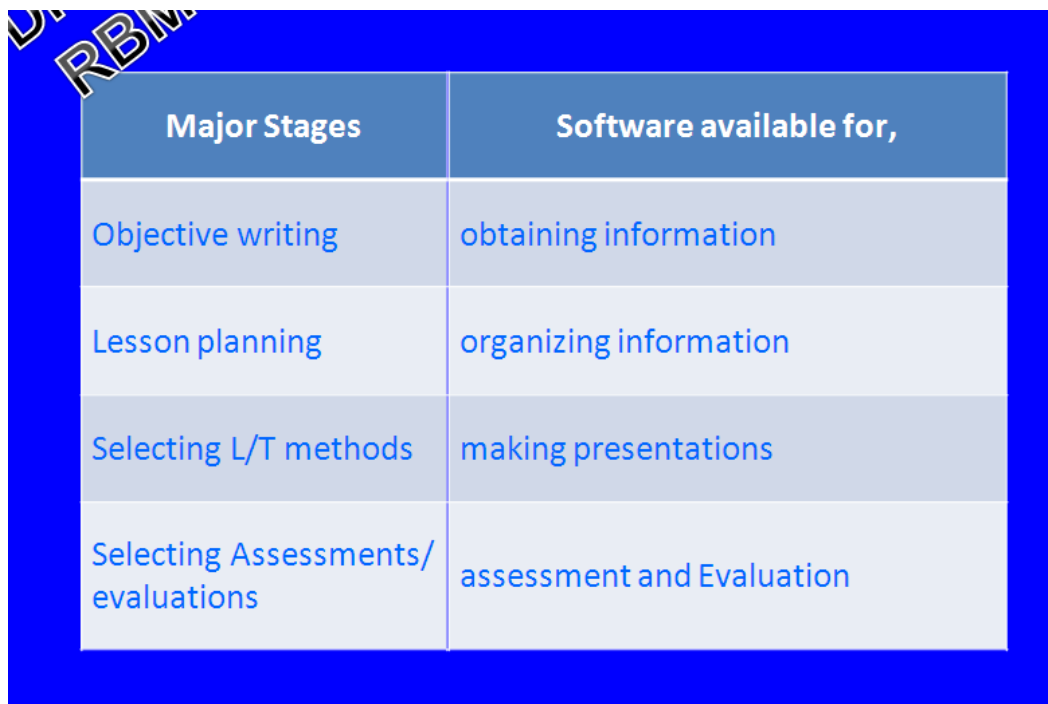hey are expected to discuss as a group. Moreover, facilitator may need to guide participants to use Internet search engines such as Google.

Possible learning outcomes:

Group 1 Presentation: different tools/software available to obtain information
In the group presentation, participants will list different means that they can use ICT, especially the Internet to,
(a) obtain information
　　a. search engines
　　b. Wiki
　　c. Encyclopedia
　　d. Educational websites,
　　e. University websites,
　　f. Library websites,
　　g. Subject specific websites,
　　h. Blogs
　　i. Journal and catalogs etc.

They may also list various software / tools available for;
　　a. Search tools: Ask.com, Bing (formerly MSN Search and Live Search), Cuil, Duck, Duck Go, Google, Kosmix, Yahoo! Search, Bing Health, Bioinformatic Harvester, Entrez (includes Pubmed), EB-eye EMBL-EBI's Search engine, GenieKnows, GoPubMed (knowledge-based: GO - GeneOntology and MeSH - Medical Subject Headings), WebMD etc.

b. Word tools: MS Word, Staroffice writer, pages MS Works, Open Office, Abiword, Google documents, AJAXWrite, Notepad, Zoho Documents, Wordpad, Adobe Buzzword etc
c. GIS - Geographical Information systems tools: Arc Explorer, Arcview, Google Earth, Google maps Microsoft Live Maps, Gap-Minder
d. Audio tools: Sound recorder, Audacity, readplease 2003, Garage band, adobe acrobat reader - read out loud Online tools [See web2.0] http://voicethread.com/ http://www.looplabs.com/ http://www.jamglue.com http://www.podomatic.com/mix Elluminate
e. Video Tools: Movie maker, iMovie, Pinnacle studio, Pinnacle Videospin, Final Cut, Adobe premier (and premier elements) photostory 3, Online tools [See web2.0] http://voicethread.com/ www.jumpcut.com, www.eyespot.com, www.pinnacleshare.com, www.cuts.com, www,animoto.com

Group 1 Discussion/Questions:

At the end of the Group 1 presentation, the facilitator needs to lead the discussion. Following questions may be useful in clarifying the knowledge that the group has.

(a) how reliable the information published on above sits and how to check the reliability
(b) how much cost (free or need registration) involved in searching above sites/databases
(c) how easy to use and download information
(d) are there any specific software needed to download above information
(e) are there any copyright issues, and if so how to overcome them etc.

Group 2 Presentation: different tools/software available to organise information

In the group presentation, participants will list different means that they can use ICT to,
(b) organizing information

- The participants will come up with some common software such as databases, (access), picture databases, even simple Excel and file system of the computer for digital storage.
- They will also explain other forms of data storages such as web disk.
- Use of bookmark/favorites is useful practice. Bookmark files can be organized into folders. They can be exported as well as imported.
- There are numerous lesion planning tools (free as well as purchasable) over the internet.
- There are other 'organizing' tools which are freely available on the net and participant will find them (i.e. mind mapping, Mindmanager, Thoughtstream Pathmaker etc).
- Personal portable devices such as ipod or mobile phone can also be used to organize information.

They may also specify various software / tools available such as;
a. Timeline tools: Preceden - http://www.preceden.com/ xTimeline - http://www.xtimeline.com/ interactive timeline - read write think
b. Data processing & Spreadsheet Tools: MS Excel, Open Office Calc, Star Office Calc, Numbers, Google Spreadsheet (part of Google Docs), Zoho Spreadsheet (part of Zoho Office)
c. Mind mapping tools: Bloom's, Learning styles & thing organisers
    1. Inspiration, kidspiration, Mind Manager, Smart ideas, Cmap, Mindmapper, freemind, Online tools
    2. http://www.gliffy.com/ http://www.mindmeister.com http://www.drawanywhere.com/examples.aspx[[http://www.mindmeister.com/|]]

Group 2 Discussion/Questions:
At the end of the Group 2 presentation also, the facilitator needs to lead the discussion. Following questions may be useful in clarifying the knowledge.

(a) how easy to use them (need specific software to download)
(b) how much cost (free or need registration) involved
(c) any safety issues in storage such as virus attack, theft or vandalism, maintain confidentiality etc.
(d) how to overcome problems identified in above (c).

Group 3 Presentation: different tools/software available in making presentations

In the group presentation, participants will list different means that they can use ICT to making presentations :

- Participants will explain common presentation tools such as M/S PowerPoint and Flash as well as less common tools (e.g. Adobe Presenter, Macromedia Director etc).
- They will also present other forms of software such as Screen Capture Tools (i.e. Print Screen, Cropper), Streaming Video Software (i.e. CamStudio).
- They will also present collaborative presentation tool such as Google Docs Presentation, SlideShare, authorSTREAM etc etc).

They may also list various software / tools available such as;

1. Presentation Tools: Staroffice and open office Impress, Keynote, Microsoft Powerpoint, Google presentation, Zoho presentation, C-Map presentation builder, Mind mapper in presentation mode, prezi.com Mind Manager - presentation Mode, Voicethread, Slideshare
2. IM - Instant Messaging :IRC, IRQ, yahoo messenger, MSN messenger, First Class IM, Moodle IM, Twitter, texting and SMS
3. DTP - Desktop Publishing: MS Publisher, Serif page Plus, Pages, Adobe Pagemaker, //Scribus//, Quark Express, Adobe Indesign

Group 3 Discussion/Questions:
At the end of the Group 3 presentation also, the facilitator needs to lead the discussion. Following questions may be useful in clarifying the knowledge.

(a) how useful them (how misleading them:any pitfalls or 'black holes').
(b) how much cost (free or need registration) involved
(c) any copyright issues.
(d) what common problems participants may encounter (i.e. file size, illumination and colour selection etc.) and how to overcome them

Group 4 Presentation: different tools/software available in doing assessment and evaluations

- Participants may describe how computers could be used to prepare question papers, store them, store marks and grades and even grading and analyzing data using commonly available tools such as M/S word, Excel, Access database etc.
- Participants will also find online tools such as survey forms (E.g. SurveyMonkey), Audience Response Systems (Audience Response Solutions, Meridia etc.) Electronic portfolios and even computer assisted Objective structured clinical examinations (OSCEs) facilitated by 'oral/viva voce' video recordings.
- Participants will also present electronic submission of Essay or Short Essay Questions (SEQ).

The group may also specify various software / tools available in;

1. Computer-Assisted Assessment or Computer-Aided Assessment (CAA)
2. Computer-Mediated Assessment (CMA)
3. Computer-Based Assessment (CBA): (e.g. Multiple Choice Generator, Random Test Generator-PRO, VMware, Exam Manager etc).
4. online assessment (e.g. SurveyMonkey, Doctor's visit (section Web-based health care etc.)

Group 4 Discussion/Questions:

At the end of the Group 4 presentation also, the facilitator needs to lead the discussion. Following questions may be useful in clarifying the knowledge.

(a) how practical above tools in the present context.
(b) how much cost (free or need registration) involved
(c) any other issues such as security, maintaining reliability and validity, avoid plagiarism, etc.
(d) how to overcome above identified (c) issues.

ii. Out of Class (if any)

Allow/generate a friendly discussion/share any experience of using above software/tools in the present context.

4. **Assessments**

Each participants (candidate) will be given a question 'how do you expected to integrate ICT into your L/T activities?'and three minute will be given to present their answer to the audience. The other participants will act as markers (peer assessors) and grade the presentation on a 3 point scale, ranging from 'needs improvement', 'average' and 'excellent'. Finally, the grades will be aggregated and the facilitator will provide his/her final grading.

This assessment is 'peer' assessed and the facilitator will announce the final grading immediately after the activity. Just after the assessment is over, a feedback will also be provided. Total mark allocated for this assessment is 25%.

5. **Essential Reading**

- Benjamin, S., Robbins, I. & Kung, S. (2006). Online resources for assessment and evaluation. *Academic Psychiatry*, **30**, 498 -504.

6. **Supplementary Reading**

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1. Learning Outcomes

After successfully completing the session participants should be able to,

- define the term "eLearning"
- review different terms associated with eLearning
- classify different softwares associated with eLearning

2. Lecture Outline

- Different terms associated with eLearning
- Different software associated with eLearning

3. Learning/Teaching Resource

a. Lecture Notes
None

b. Other Teaching materials (if any)
Web resources: all the resources used in the module will be from freely available Internet resources. However, the facilitator should be mindful that they are subjected to the copyright laws.

c. Activities
   i. In Class
Learning activity 5 (**Small Group Discussion**):
Similar to the previous activities, the participants will be asked to search various educational jargon related to the ICT. Then, they will ask to discuss interrelationship between ICT with those different jargons.
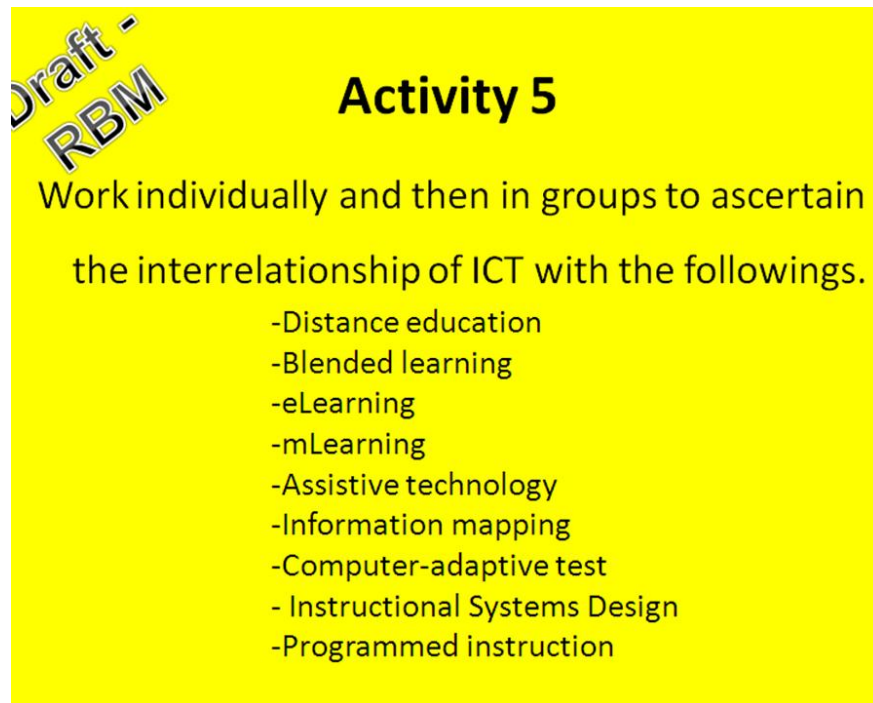
Learning environment: This activity can be done in face-to-face (e.g. computer laboratory) or at a distance (e.g. Video Conferencing). The participants need to have an access to a computer which is connected to the Internet.
Facilitator needs to create a learning group. In the beginning, participants could work individually (on their own) but later they are expected to discuss as a group. Moreover, facilitator may need to guide participants to use Internet search engines such as Google.

Possible learning outcomes:

There are many educational jargon associated with ICT and Education.

Activity 5

Work individually and then in groups to ascertain

the interrelationship of ICT with the followings.
- Distance education
- Blended learning
- eLearning
- mLearning
- Assistive technology
- Information mapping
- Computer-adaptive test
- Instructional Systems Design
- Programmed instruction

The participants may explain such terms as,

a. CBT – Computer Based Learning - an interactive instructional approach in which the computer, taking the place of an instructor, provides a series of stimuli to the student ranging from questions to be answered to choices or decisions to be made. The CBT then provides feedback based on the student's response.

b. CAL- Computer Assisted Learning - a form of computer-based learning often characterized by individualized and bidirectional learning.

c. eLearning – "Electronic Learning" - all forms of electronically supported learning and teaching, which are procedural in character and aim to effect the construction of knowledge with reference to individual experience, practice and knowledge of the learner.

d. Online Learning – Online $=$ Web based- This combined network of learners and the electronic network in which they communicate are referred to as an asynchronous learning network usually through Internet.

e. Distance Education - a process to create and provide access to learning when the source of information and the learners are separated by time and distance, or both

f. mLearning – "Mobile Learning" - A form of distance education usually with mobile devices.

g. Blended Learning - A blended learning approach can combine face-to-face instruction with computer-mediated instruction

h. Assistive Technology - products, devices or equipment, whether acquired commercially, modified or customized, that are used to maintain, increase or improve the functional capabilities of individuals with disabilities

i. Information Mapping - analyzing, organizing, and presenting information based on audience needs and the purpose of the information

j. Computer Adaptive tests- is a form of computer-based test that adapts to the examinee's ability level.

k. Instructional Systems Design- the practice of maximizing the effectiveness, efficiency and appeal of instruction and other learning experiences often involves analysis, design, develop, implement and evaluation.

l. Programmed learning - educational technique characterized by self-paced, self-administered instruction presented in logical sequence and with much repetition of concepts.

Subsequently, the facilitator will present a simple classification to group the eLearning software together. The broad two groups, common software (i.e. web browsing, communicating, word processing, calculating/database and presenting) and specific Learning Management Software (i.e. Moodle, BlackBoard, Web CT etc.).
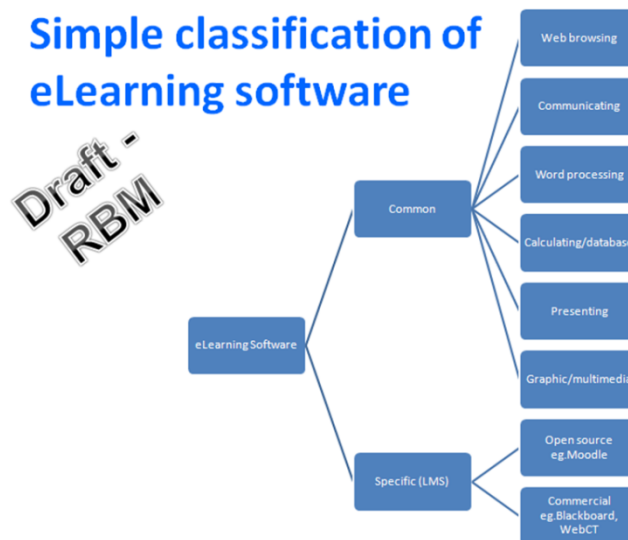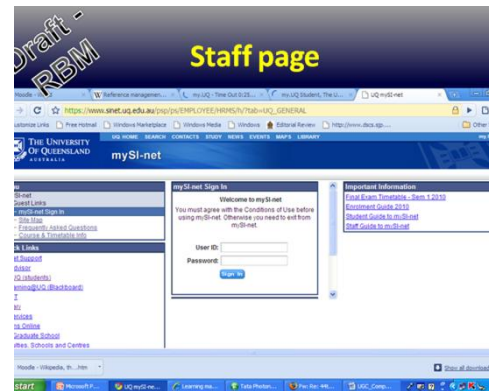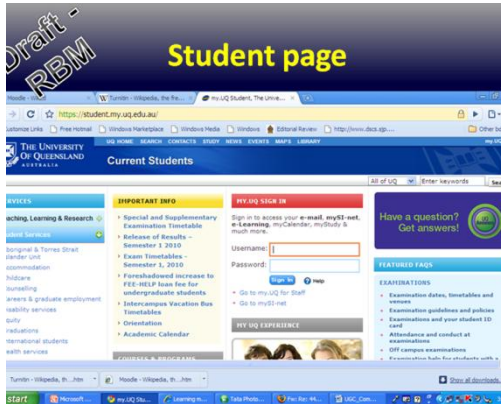
Finally, the facilitator will introduce eLearning examples in the form of screenshots. These examples could be discussion board, student groups pages and prerequisites for eLearning etc.

ii. **Out of Class (if any)**

4. **Assessments**
   Only formative, no summative assessment at this point.

5. **Essential Reading**
   -
   -

6. **Supplementary Reading**
   -

1. **Learning Outcomes**

After successfully completing the session participants should be able to,

- describe the term 'LMS'

- identify common features of LMS software according to the groups (i.e. commercial and open source)

- group LMS software accordingly

2. **Lecture Outline**

- Introduction to 'LMS'

- General and specific features of LMS

3. **Learning/Teaching Resource**
   a. **Lecture Notes**
      None

   b. **Other Teaching materials (if any)**
      Web resources: all the resources used in the module will be from freely available Internet resources. However, the facilitator should be mindful that they are subjected to the copyright laws.

   c. **Activities**
      i. **In Class**
   Learning activity 6 (**Small Group Discussion**)**:** The participants will be asked to perform an internet search to define the term LMS.

   Learning environment: This activity can be done in face-to-face (e.g. computer laboratory) or at a distance (e.g. Video Conferencing). The participants need to have an access to a computer which is connected to the Internet.
   Facilitator needs to create a learning group. In the beginning, participants could work individually (on their own) but later they are expected to discuss as a group. Moreover, facilitator may need to guide participants to use Internet search engines such as Google.

Possible learning outcomes:

The participants may come up with following definitions.

1. A Learning Management System (sometimes also called "Course Management System", "Pedagogical Platform", "E-Learning Platform") is a software system that delivers courseware plus e-tutoring over the Internet.
2. LMS embraces just about any use of web technology to plan, organise, implement and control aspects of the learning process.
3. a software application or Web-based technology used to plan, implement, and assess a specific learning process. Typically, a LMS provides an instructor with a way to create and deliver content, monitor student participation, and assess student performance.
4. a database system that records all the details of any education that a person (a staff member or student, for example) has taken or will take.

Discussion: Participants will list different definitions for Learning Management Systems (LMS). A learning management system (LMS) embraces just about any use of web technology to plan, organise, implement and control aspects of the learning process. It may also provide students with the ability to use interactive features such as threaded discussions, video conferencing, and discussion forums. The Advanced Distance Learning group, sponsored by the United States Department of Defense, has created a set of specifications called Shareable Content Object Reference Model (SCORM) to encourage the standardization of learning management systems

Learning activity 7 (**Small Group Discussion**):
Participants will be asked to list the general functions/characteristics of LMS.

Learning environment: This activity can be done in face-to-face (e.g. computer laboratory) or at a distance (e.g. Video Conferencing). The participants need to have an access to a computer which is connected to the Internet. Facilitator needs to create a learning group. In the beginning, participants could work individually (on their own) but later they are expected to discuss as a group. Moreover, facilitator may need to guide participants to use Internet search engines such as Google.

Possible learning outcomes:
> The participants may come up with following functions of LMS in general: administrative, documentation including tracking and reporting, classroom and online activities, eLearning activities, content management etc.

Learning Management System (LMS)

General activities:

- Administrative
- Documentation
   - Tracking & reporting of training programs,
- Classroom and online activities
- e-learning activities
- Content management

Draft - RBM

> *Discussion:* A Learning Management System (LMS) is used to organize an online learning environment. The term "online" referrers to internet and intranet environments. Typically an LMS provides the means to track users, assess performance, deploy content, and access general administrative functions such as management of users records. Some Learning Management Systems enable the creation of learning content, and others require the use of a front end application (i.e. Authorware) to create that content.. LMS simply be classified into two main categories, Open source, free, (e.g. Moodle) and commercial (e.g. Blakboard). At this point, it is appropriate to introduce and explain the term 'free and open source'.
>
> > "software that is liberally licensed to grant the right of users to use, study, change, and improve its design through the availability of its source code".

Learning activity 8 (**Small Group Discussion**)**:** The participants will be asked to perform an internet search to list examples of open source and commercial LMSs.

Learning environment: This activity can be done in face-to-face (e.g. computer laboratory) or at a distance (e.g. Video Conferencing). The participants need to have an access to a computer which is connected to the Internet. The facilitator needs to create a learning group. In the beginning, participants could work individually but later they are expected to discuss as a group. Moreover, facilitator may need to guide participants to use Internet search engines such as Google.

Possible learning outcomes:
> The participants may lists examples including,
> (a) Open Source Learning Management Systems
> > Moodle
> > aTutor
> > Claroline
> > Dokeos
> > eFront
> > OLAT
> > Sakai Project
> (b) Commercial Learning Management Systems
> > Blackboard Learning System (WebCT and ANGEL Learning as well)
> > CCNet
> > CourseInfo LLC
> > eCollege
> > Fedena
> > HotChalk
> > ILIAS
> > Instructure
> > JoomlaLMS
> > Learn.com
> > Meridian Knowledge Solutions
> > Saba Learning Suite
> > Schoology
> > SharePointLMS
> > Spiral Universe
> > Thinking Cap
> > Vitalect

Learning activity 9 (**Small Group Discussion**):
The participants will be asked to perform an internet search to ascertain the characteristics of LMS and to classify characteristics those are specific to commercial LMS as well as those are common to both two groups.

Learning environment: This activity can be done in face-to-face (e.g. computer laboratory) or at a distance (e.g. Video Conferencing). The participants need to have an access to a computer which is connected to the Internet. The facilitator needs to create a learning group. In the beginning, participants could work individually but later they are expected to discuss as a group. Moreover, facilitator may need to guide participants to use Internet search engines such as Google.

Possible learning outcomes:
Participants will come up with a list of characteristics and following table will present a summary of such characteristics. (Table 1)

Instructors can....	WebCT	Campus Ed. 4.1	Blackboard 6.2	Jones E-education	Educator	Angel	.LRN	McGraw Hill Page Out	Moodle	e-College AU
Select different course components	✓	✓	✓	✓	✓		✓		✓	✓
Create a copy of an existing course	✓	✓	✓	✓	✓				✓	✓
Hide work in progress	✓	✓	✓	✓		✓	✓		✓	
Upload files from desktop to server	✓	✓	✓	✓	✓	✓	✓		✓	✓
Upload multiple files at once Note: multiple files must be zipped into one file first.	✓	✓	✓	✓	✓	✓				✓
Edit uploaded text online	✓	✓		✓		✓	✓			✓
Release content based on student viewing certain prerequisite materials	✓									
Release content based on chronological criteria	✓	✓	✓			✓				✓
Release content pages based on student quiz performance	✓			✓	✓	✓				✓
Release feedback within quizzes	✓	✓	✓	✓	✓	✓				✓
Release content to specified groups of	✓		✓	✓	✓					✓
Release content based on custom-designed criteria, such as number of bulletin board postings, students whose last name starts with M, etc.	✓				✓					✓
Attach learning goals to content pages	✓		✓	✓		✓	✓		✓	
Attach review questions to content pages	✓		✓		✓	✓			✓	
Create references	✓	✓	✓	✓	✓	✓	✓		✓	✓
Use automated tool to build glossary	✓					✓			✓	
Use automated tool to build content index	✓	✓				✓			✓	✓
Use automated tool to build searchable image database	✓					✓				
Integrate online course with CD-ROM	✓				✓	✓			✓	✓

(Adapted from: Lewis, MacEntee, & Youngs-Maher, 2002)

ii. Out of Class (if any)

4. Assessments

Only formative, no summative assessment at this point.

5. Essential Reading

- Lewis, B., MacEntee, V., DeLaCruz, S., Englander, C., Jeffrey, T., Takach, E., Wilson, S., & Woodall, J. (2005). Learning management systems comparison. *Proceedings of the 2005 Informing Science and IT Education Joint Conference*. Available at *http://proceedings.informingscience.org/InSITE2005/P03f55Lewis.pdf*

6. Supplementary Reading

-

1. **Learning Outcomes**

After successfully completing the session participants should be able to,

- describe Moodle software

- list the features of Moodle software

- identify the drawbacks of Moodle software

2. **Lecture Outline**

- Moodle LMS software

- Features of Moodle software

- Drawbacks of Moodle software

3. **Learning/Teaching Resource**
    a. **Lecture Notes**
       None

    b. **Other Teaching materials (if any)**
       Web resources: all the resources used in the module will be from freely available Internet resources. However, the facilitator should be mindful that they are subjected to the copyright laws.
    c. **Activities**
       i. **In Class**

Learning activity 10 (Small Group Discussion):
Similar to the previous activities, the participants will be asked to search and,
- (1) describe the Moodle LMS
- (2) to list the characteristics of Moodle LMS.

Learning environment: This activity can be done in face-to-face (e.g. computer laboratory) or at a distance (e.g. Video Conferencing). The participants need to have an access to a computer which is connected to the Internet. The facilitator needs to create a learning group. In the beginning, participants could work individually but later they are expected to discuss as a group. Moreover, facilitator may need to guide participants to use Internet search engines such as Google.

Possible learning outcomes:
Participants will need to come up with followings.

Moodle:

- Moodle abbreviation- Modular Object-Oriented Dynamic Learning Environment
- free and open-source e-learning software platform
- Historical information:
  - Developer: by Martin Dougiamas
  - Intended purpose : to help educators create online courses with a focus on interaction and collaborative construction of content
- Features :
  - Moodle has several features typical of an e-learning platform. However, Moodle can be used in many types of environments such as in education, training and development, and business settings.
  - Developers can extend Moodle's modular construction by creating plugins for specific new functionality such as:
    - activities (including word and math games)
    - resource types
    - question types (multiple choice, true and false, fill in the blank, etc)
    - data field types (for the database activity)
    - graphical themes
    - authentication methods (can require username and password accessibility)
    - enrollment methods
    - content filters etc.

- o Moodle users can use PHP to author and contribute new modules.
  - o By default Moodle includes the TCPDF library that allows the generation of PDF documents from pages.
  - o Moodle runs without modification on may operating systems such as Unix, Linux, FreeBSD, Windows, Mac OS etc, and any other systems that support PHP and a database, including most webhost providers.
  - o Data goes in a single database (e.g. MySQL)
- Pedagogical approach:
  - o Initially, the philosophy of Moodle includes a constructivist and social constructionist approach to education. However, Moodle also supports an outcomes-oriented learning environment.
- Current users :
  - o Moodle had a user-base of about 46,000 registered sites. Approximate 32.5 Million users, 209 countries and in more than 75 languages which includes, UK, Australia, Argentina, Kingdom of Saudi Arabia as well as Sri Lanka.

Subsequently, the facilitator will make a presentation of Moodle. LMS with examples (i.e. drawn from Sri Lankan Universities- University of Sri Jayewardenepura).
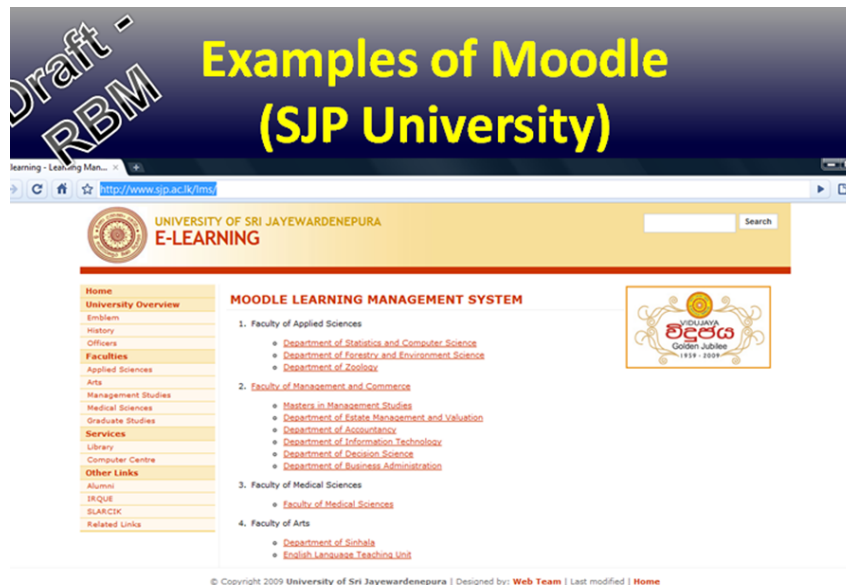
ii. Out of Class (if any)

Facilitator will encourage participants to discuss the drawbacks of Moodle with special relevance to Sri Lankan context and to suggest possible solutions to overcome such drawbacks.

4. Assessments

Only formative, no summative assessment at this point.

5. Essential Reading

- Brandl, K. (2005). Are you ready to "Moodle?" *LLT Language Learning & Technology* 9 (2). Available online at: http://llt.msu.edu/vol9num2/review1/

6. Supplementary Reading

1. **Learning Outcomes**

After successfully completing the session participants should be able to,

- describe Blaokboard software

- list the features of Blaokboard software

- identify the drawbacks of Blaokboard software

2. **Lecture Outline**

- Blaokboard software

- Features of Blaokboard software

- Drawbacks of Blaokboard software

3. **Learning/Teaching Resource**
   a. **Lecture Notes**
      None

   b. **Other Teaching materials (if any)**
      Web resources: all the resources used in the module will be from freely available Internet resources. However, the facilitator should be mindful that they are subjected to the copyright laws.

   c. **Activities**
      i. **In Class**

Learning activity 11 (**Small Group Discussion**):

Similar to the previous activities, the participants will be asked to search and,

1. describe the Blackboard LMS
2. to list the characteristics of Blackboard LMS.

Learning environment: This activity can be done in face-to-face (e.g. computer laboratory) or at a distance (e.g. Video Conferencing). The participants need to have an access to a computer which is connected to the Internet. The facilitator needs to create a learning group. In the beginning, participants could work individually but later they are expected to discuss as a group. Moreover, facilitator may need to guide participants to use Internet search engines such as Google.

Possible learning outcomes:
Participants will need to come up with followings.

Blackboard:
- Historical information:
    - The Blackboard Inc. company was formed by the joining of two companies. CourseInfo LLC and Blackboard LLC, Initially it called Blackboard CourseInfo LLC, but now called as Blackboard Inc.
    - Blackboard software is used by over 3700 educational institutions in more than 60 countries
- Features :
    - Blackboard software is used not only to manage e-learning but also in transaction processing e-commerce, and online communities as well.
    - Blackboard software is usually a closed source. However, it also provides an open architecture, called Building Blocks, that can be used to extend the functionality of Blackboard products. Moreover, the Blackboard Vista and Campus Edition (former WebCT Inc's) products are extensible through a technology called PowerLinks. Blackboard has following tools,
        - Learning Management Tools
            - Pedagogical flexibility – Allow faculty members to further customize the course environment by renaming and reordering navigation buttons and by exposing course Web site areas selectively by date, student, or course module completed, etc.
            - Ease of use – Further streamline course navigation and wizard functions (e.g., syllabus and lesson builders).
            - Communication tools – Include streaming video, Web-casting, archiving, etc.
            - Assessment engine – Allow for additional question types, better feedback mechanisms, more advanced question pooling, and randomization, etc.
            - Grade book functions – Enhance sorting capabilities of student assessment results.
            - Student tracking – Provide instructors and academic advisors with the ability to follow the progress of a student through a course and set of courses.
            - Adaptive learning – Selectively expose new content areas and learning modules to individual students within a course based on their performance on assessments.
        - Content Management

- Platform customization,
        - Advanced APIs and Extensibility Tools
        - Integration of Value-added Web Resources
        - Support for Open Industry Standards
        - ADA Compliance and Accessibility
        - Wireless
- Pedagogical approach:
    - a strategy based on unlimited configuration and deployment options, powered by an underlying educational "operating system".
- Drawbacks:
    - Blackboard has acquired near monopoly status and it's so much trouble to switch to another system that once you're on it and no viable commercial competator.
    - Increasing the prices but feeling of ineffective support services.
    - Blackboard did not support Firefox and other browsers such as Konqueror until recently.
    - Other administrative problems such as Blackboard does not share session data across servers - each server maintains session data locally.
    - The semester-centric view
        b. The discussion board software need to reset after every semester
        c. This also makes difficult for those who run education sessions manage otherwise.
        d. no facilities to archive and search the comments.
    - The announcement mechanism did not support RSS, or to send out emails automatically upto early 2007.

Subsequently, the facilitator will make a presentation of BlackBoard LMS with examples (ie. drawn from foreign universities).
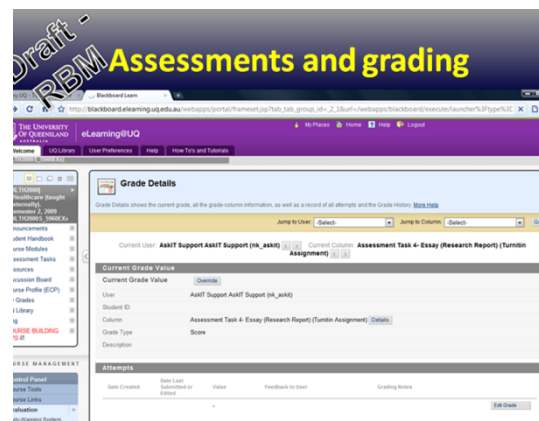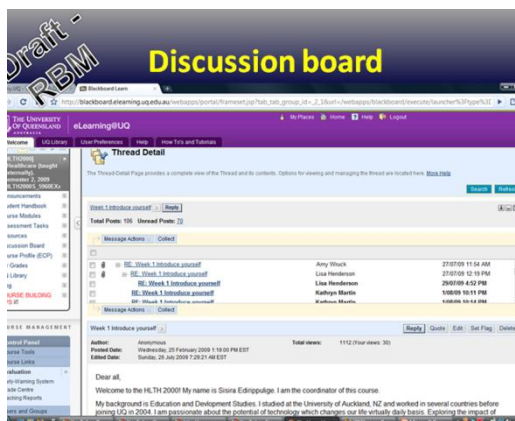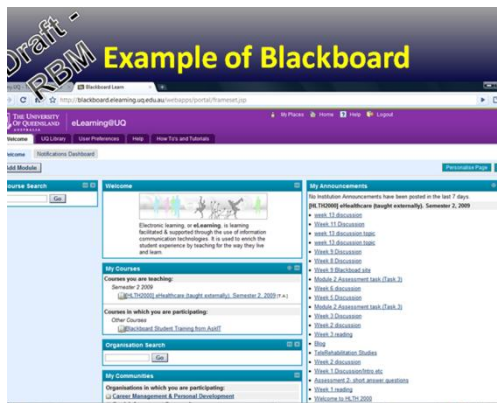
ii. Out of Class (if any)

The participants were encouraged to discuss 'Do we (Sri Lanka) need Blackboard LMS?".

4. Assessments

For this section, Blackboard, no summative assessment will be conducted. However, the second assessment of the Module will be conducted at this point which covers the Activity 5 to 11. This assessment is also a 'peer' assessment and the facilitator will announce the final grading immediately after the activity 11. Total mark allocated for this assessment is 25%.

Each participants (candidate) will be given a question 'What LMS software and its features you want to use when designing an electronic learning module?' and three minute will be given to present their answer to the audience. The other participants will act as markers (peer assessors) and grade the presentation on a 3 point scale, ranging from 'needs improvement', 'average' and 'excellent'. Finally, the grades will be aggregated and the facilitator will provide his/her final grading.

5. Essential Reading
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6. Supplementary Reading
- David E. Watson, Book review: Blackboard Architectures and Applications, Edited by V. Jagannathan, Rajendra Dodhiawala, and Lawrence S. Baum (Academic Press), ACM SIGART Bulletin, v.1n.3, p.19-20, Oct. 1990

- **Learning Outcomes**

  After successfully completing the session participants should be able to,

  - describe Web 2.0 technologies and how to use them in education
  - describe SoSo, and MoSoSo software and list examples

- **Lecture Outline**

  - Web 2.0 technologies
  - Social Software (SoSo)
  - Mobile Social Software (MoSoSo)

- **Learning/Teaching Resource**

  a. **Lecture Notes**
     None

  b. **Other Teaching materials (if any)**
  - Web resources: all the resources used in the module will be from freely available Internet resources. However, the facilitator should be mindful that they are subjected to the copyright laws.

  a. **Activities**
     i. **In Class**

Learning activity 12 (**Small Group Discussion):**
Similar to the previous activities, the participants will be asked,

   a. to search and describe what is Web 2.0.
   b. to describe Social Software (SoSo) and Mobile Social Software (MoSoSo).

Learning environment: This activity can be done in face-to-face (e.g. computer laboratory) or at a distance (e.g. Video Conferencing). The participants need to have an access to a computer which is connected to the Internet. The facilitator needs to create a learning group. In the beginning, participants could work individually but later they are expected to discuss as a group. Moreover, facilitator may need to guide participants to use Internet search engines such as Google.

Possible learning outcomes:
  (a) Web 2.0:

  ### *Definitions*
  Web 2.0 has numerous definitions.
  1. Web 2.0 as business embracing the web as a platform and using its strengths (global audiences, for example) (by Tim O'Reilly:*http://en.wikipedia.org/wiki/Web_2.0*).
  2. An umbrella term for the second wave of the World Wide Web, which was coined in a conference on the subject in 2004 by O'Reilly Media and CMP Media (later taking its parent name of United Business Media). Sometimes called the "New Internet," Web 2.0 is not a specific technology; rather, it refers to two major paradigm shifts. The one most often touted is "user-generated content," which relates more to individuals. The second, which is equally significant, but more related to business, is "cloud computing." (*http://encyclopedia2.thefreedictionary.com/Web+2.0)*
  3. In Web 2.0, the web had become a platform, with software above the level of a single device, leveraging the power of the "Long Tail", and with data as a driving force (*http://www.linkwebservices.com/web_20/web_20.html*)
  4. Web 2.0 is the network as platform, spanning all connected devices; Web 2.0 applications are those that make the most of the intrinsic advantages of that platform: delivering software as a continually-updated service that gets better the more people use it, consuming and remixing data from multiple sources, including individual users, while providing their own data and services in a form that allows remixing by others, creating network effects through an "architecture of participation," and going beyond the page metaphor of Web 1.0 to deliver rich user experiences (*http://radar.oreilly.com/2005/10/web-20-compact-definition.html*)

  ### *Web 2.0 characteristics:*

  a) User-centered Design: A web design created in a way that it fulfills every possible need of the end user and empowers the user to perform certain customizations within the design.

  b) Crowd-sourcing : Every small unit of contribution is important to a Web 2.0 service. Millions of such contributions eventually lead the website to state of higher relevance.

  c) Web as Platform: Web 2.0 services don't require a client download condition, nor is the dependency on a particular OS for accessing the web services.

d) Collaboration : develop content by collaborative participating rather than depending on the publisher.

e) Power Decentralisation : Web 2.0 services follow a self-service model rather than being a adminstrator dependent.

f) Dynamic Content : Web 2.0 services have to be highly dynamic and proactive.

g) (Software as a Service (SaaS): Softwares are available as a web service with no platform dependency at all.

h) Rich User Experience : Use of various technologies (e.g. XHTML,CSS 2.0,Ajax,flex etc) have potentially helped making web services lighter,faster,less cluttered and also more appealing to the end user.

(b) Social Software (SoSo) and Mobile Social Software (MoSoSo)
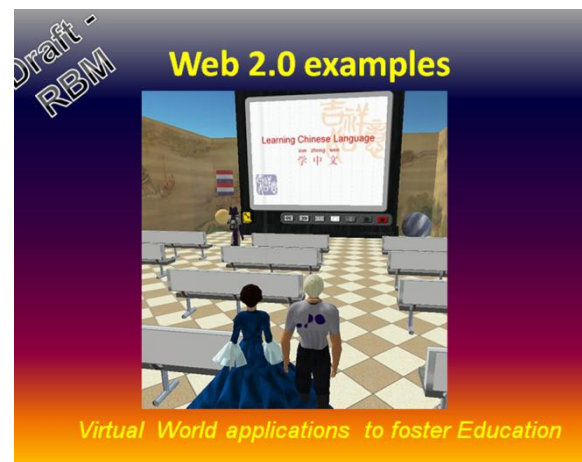
Social Software (SoSo)

- Social software encompasses a range of software systems that allow users to interact and share the data. They can be grouped into two main categories such as free (e.g. MySpace and Facebook, media sites like Flickr and YouTube) and commercial (e.g. Amazon.com, eBay).
- SoSo can also be viewed as integrating different disciplines to improve social interactions. For instance, philosophy and the social sciences is linked with computer sciences form which it borrows mathematical tools and techniques in order to analyze and design social procedures.
- In practice, SoSo is a software running on an individual's computer or on a website, with which users can create personal profiles, form groups and exchange messages. They can also 'rate' each other and so build reputations. Therefore, SoSo is a software system that enables users to collaborate and share information.
- Simply, the SoSo is a type of software or web service that allows people to communicate and collaborate while using the application and e-mail, blogs, and even instant messaging are all examples of social software.

Mobile Social Software (MoSoSo)

- MoSoSo, an acronym for Mobile Social Software. Similar to the SoSo, MoSoSo also allows people to communicate and collaborate using electronic devices. However, MoSoSo is different to SoSo as former uses any mobile devices.
- Therefore, MoSoSo is a class of mobile applications whose scope is to support social interaction among interconnected mobile users.
- The basic idea of a MoSoSo is to overlay a location and time element to the idea of digital networking. It enables users to find one another, in a particular vicinity and time, for social or business networking.
- The examples of MoSoSo are,
  - Moblogging (mobile blogging) : In Moblogging , the mobile picture and file sharing are beginning, as in Microsoft's SLAM project.
  - Location-based mobile services : Dodgeball.com and Playtxt
  - Gaming : there are two kinds of gaming/entertainment applications: virtual and augmented reality (e.g.. EverQuest, World of Warcraft, SecondLife, the Sims Online, and CyWorld.
  - Teleconferencing : Teleconferencing is a kind of face-to-face communication between remotely located individuals. They are also two kinds; large-scale resurgence such as Cisco and HP and smaller scale application such as Skype and iChat..

ii. Out of Class (if any)

Learning activity 13 (**Small Group Discussion**):

The participants will be asked to discuss the way Web 2.0 features could be used to enhance L/T practices.

Learning environment: This activity need to be done both conventionally (face-to-face) or at a distance (e.g. Video Conferencing). The participants are encouraged to use resources other than internet (books, journals, magazines etc) to enhance their knowledge. Therefore, this activity would utilize the Blended learning approach in which both face-to-face and computer mediated interactions are encouraged.

Possible learning outcomes:

Participants needed to cover following aspects.

1. Review of concepts, which should include,
   o The difference between Web 1.0 and Web 2.0

Table 2: Shifting paradigm from Web 1.0 to Web 2.0

Web 1.0	Web 2.0
DoubleClick	Google AdSense
Ofoto	Flickr
Akamai	BitTorrent
mp3.com	Napster
Britannica Online	Wikipedia
personal websites	blogging
evite	upcoming.org and EVDB
domain name speculation	search engine optimization
page views	cost per click
screen scraping	web services
publishing	participation
content management systems	wikis
directories (taxonomy)	tagging ("folksonomy")
stickiness	syndication

   o The place of social software of the Web 2.0 movement.
   o Participants may name few individuals (i.e. JCR Licklider; even in 1960s) who initiate the concept of enhancing education through networked computing.

2. Review relevant learning theories and learning principles are reflected predominantly in Web 2.0 over Web 1.0 . For examples,
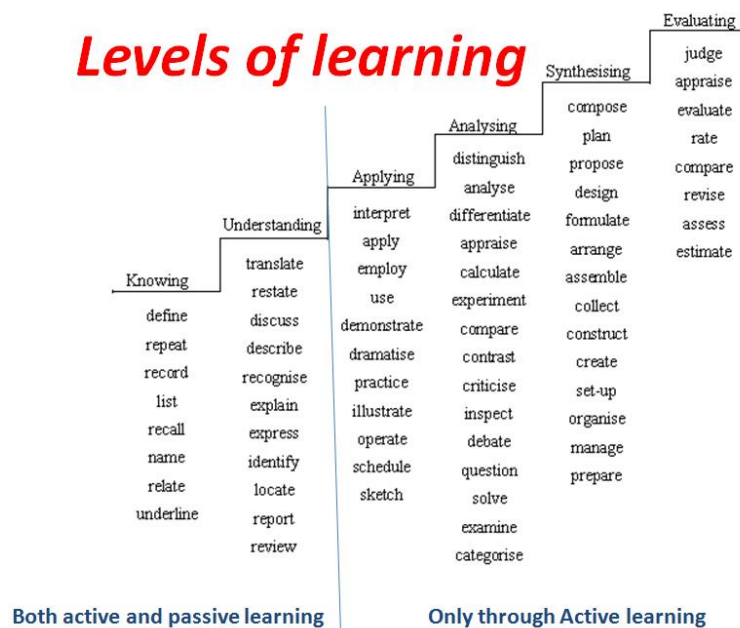 1. Adult learning principles (Kaufman ,2003),
      o Adults are independent and self directing
      o They have accumulated a great deal of experience, which is a rich resource for learning
      o They value learning that integrates with the demands of their everyday life
      o They are more interested in immediate, problem centred approaches than in subject centred ones
      o They are more motivated to learn by internal drives than by external ones
  2. The SPICES Model (Harden et.al. 1984)

S	Student-centred ---------------------	Teacher-centred
P	Problem-based ---------------------	Information-gathering
I	Integrated -------------------------	Discipline-based
C	Community-based ----------------	Hospital-based
E	Electives --------------------------	Standard Programme
S	Systematic -----------------------	Apprenticeship-based

  3. 'Deep/Active' and 'surface/passive' approaches (in assessment)

Levels of learning

Knowing	Understanding	Applying	Analysing	Synthesising	Evaluating
define	translate	interpret	distinguish	compose	judge
repeat	restate	apply	analyse	plan	appraise
record	discuss	employ	differentiate	propose	evaluate
list	describe	use	appraise	design	rate
recall	recognise	demonstrate	calculate	formulate	compare
name	explain	dramatise	experiment	arrange	revise
relate	express	practice	compare	assemble	assess
underline	identify	illustrate	contrast	collect	estimate
	locate	operate	criticise	construct	
	report	schedule	inspect	create	
	review	sketch	debate	set-up	
			question	organise	
			solve	manage	
			examine	prepare	
			categorise		

Both active and passive learning   **Only through Active learning**

3. suggest possible mechanism to include Web 2.0 into L/T

        Participants may explain ways to use some "social software" such as blogs, wikis, trackback, podcasting, videoblogs, and other social networking tools like MySpace and Facebook.

4. In summary, participants may come up with a conclusion that the initial (Web 1.0) applications influenced L/T predominantly as information seekers/users but the Web 2.0) applications allowed them to actively participate and develop the content (contributors to internet such as blogs, wikis, trackback, podcasting, videoblogs) content.

- **Assessments**

  Each participants (candidate) will be given a question 'How Web 2.0 features could be useful in L/T practices?' and three minute will be given to present their answer to the audience. The other participants will act as markers (peer assessors) and grade the presentation on a 3 point scale, ranging from 'needs improvement', 'average' and 'excellent'. Finally, the grades will be aggregated and the facilitator will provide his/her final grading. This assessment is also a 'peer' assessment and the facilitator will announce the final grading immediately after the activity 13. Total mark allocated for this assessment is 25%.

- **Essential Reading**
  - Web 2.0 definition by Tim O'Reilly
    (*http://www.youtube.com/watch?v=CQibri7gpLM&feature=related*)
  - Web 2.0: A New Wave of Innovation for Teaching and Learning?
    (*http://www.educause.edu/EDUCAUSE+Review/EDUCAUSEReviewMagazineVolume41/Web20ANewWaveofInnovationforTe/158042*)

- **Supplementary Reading**
  -

1. Learning Outcomes

After successfully completing the session the participants should be able to,

- explain the term 'Plagiarism' and describe instances where plagiarism occurs
- identify mechanism to prevent plagiarism
- provide examples of plagiarism detecting software
- explain how to use software, other than plagiarism preventing software, (e.g. referencing software) in preventing plagiarism

2. Lecture Outline

- Plagiarism
- Plagiarism detecting software
- Referencing software

3. Learning/Teaching Resource

a. Lecture Notes

None

b. Other Teaching materials (if any)

Web resources: all the resources used in the module will be from freely available Internet resources. However, the facilitator should be mindful that they are subjected to the copyright laws.

c. Activities
i. In Class

Learning activity 14 (**Small Group Discussion**):

First, the participants will be asked to perform an Internet search,

- (a) to define the term plagiarism
- (b) to identify circumstances which may give rise to plagiarism
- (c) to list plagiarism detecting software

Subsequently, the facilitator will demonstrate an example of plagiarism detecting software (e.g.Ternitin)

Learning environment: This activity can be done in face-to-face (e.g. computer laboratory) or at a distance (e.g. Video Conferencing). The participants need to have an access to a computer which is connected to the Internet.

Facilitator needs to create a learning group. In the beginning, participants could work individually but later they are expected to discuss as a group. Moreover, facilitator may need to guide participants to use Internet search engines such as Google.

Possible learning outcomes:

(a) Definitions:
Participants may come up with some of the following definitions.
1. a piece of writing that has been copied from someone else and is presented as being your own work (*www.thefreedictionary.com*)
2. the act of plagiarizing; taking someone's words or ideas as if they were your own (*www.thefreedictionary.com*)
3. use or close imitation of the language and thoughts of another author and the representation of them as one's own original work (Random House Compact Unabridged Dictionary, 1995)
4. the wrongful appropriation or purloining and publication as one's own, of the ideas, or the expression of the ideas… of another (Oxford English Dictionary)

(b) The circumstances which may give rise to plagiarism:
(*http://www.wsulibs.wsu.edu/plagiarism/what.html*)
Plagiarism occurs in two instances, intentional and unintentional. The Intentional plagiarism refers when someone knowingly copied the work of others and presented as of their own; hence it could be described as a form of cheating. However, plagiarism may be unintentional. That is there is no desire to hide the source, but rather misuse of sources probably due to a lack of understanding of the conventions of citation and documentation.

Intentional plagiarism (cheating) includes;
*   copying entire documents and presenting them as your own;
*   cutting and pasting from the work of others without properly citing the authors;
*   stringing together the quotes and ideas of others without connecting their work to your own original work;
*   asserting ideas without acknowledging their sources, reproducing sentences written verbatim by others without properly quoting and attributing the work to them;
*   making only minor changes to the words or phrasing of another's work, without properly citing the authors.

Unintentional plagiarism (misuse of sources) probably includes;
*   a lack of understanding of paraphrasing,
*   not being clear about the parameters of common knowledge

- the statute of limitations on the attribution of ideas (i.e. lack of understanding of idea of the ownership)
- as a result of ignorance or laziness, but is not the result of a desire to cheat

(c) plagiarism detecting software
  o Copyscape: A great tool for quick plagiarism searches.
  o Plagium: A Copyscape alternative that is free and based on Yahoo!
  o Google Alerts: A free service that can automate basic plagiarism checks and email you results.
  o FairSare: A tool to detect misuse of content in an RSS feed.
  o Digital Fingerprint Plugin: A WordPress plugin to detect RSS scraping.
  o Tineye: A visual search engine that looks for copies of an image.
  FeedBurner: Offers feed modification and analysis tools that can make detecting RSS scraping much easier.

An example of plagiarism detecting software (e.g.Ternitin)
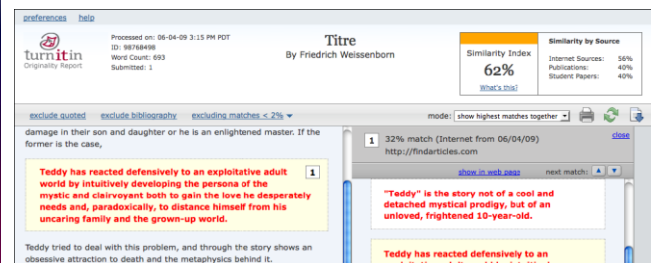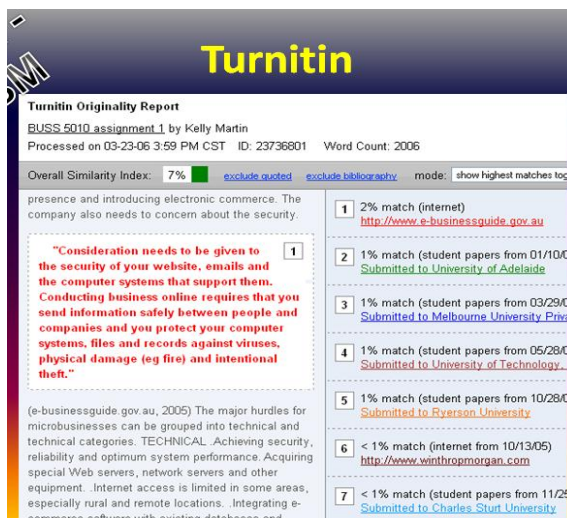
Learning activity 15 (**Small Group Discussion):**
First, the participants will be asked to perform an Internet search,
  (a) to list common referencing software and their relative features
  (b) to discuss the importance of correct referencing in preventing plagiarism
Subsequently, the facilitator will demonstrate how a referencing software works (e.g.EndNote)

Learning environment: This activity can be done in face-to-face (e.g. computer laboratory) or at a distance (e.g. Video Conferencing). The participants need to have an access to a computer which is connected to the Internet.

Facilitator needs to create a learning group. In the beginning, participants could work individually but later they are expected to discuss as a group. Moreover, facilitator may need to guide participants to use Internet search engines such as Google.

Possible learning outcomes:

Referencing software and their relative features:

Participants may list some of the following features of referencing software.

Comparison of the features of EndNote, EndNote Web and Reference Manager
(*http://www.southampton.ac.uk/library/infoskills/bibliographic/comparison.html*)

Feature	EndNote X4	EndNote Web 2.7	Reference Manager 12
Suitable for Windows and Mac users?	Yes Windows version available (compatible with Windows 7, Vista and XP) Mac version to be released in October 2010 (Endnote X3 for Mac is still available from the iSolutions software distribution service)	Suitable for Windows, Mac & Linux	Only suitable for Windows (compatible with Windows 7, Vista and XP)
Multi-user access to database (network or Web)	No, single user database. Collaborate by transferring up to 10,000 references between your desktop version and shared EndNote Web groups.	Yes	Yes
Access to references	Desktop & Network	Web browser	Desktop, Network & Web browser (via Web publisher)
Store and cite images and objects	Yes	No	No
Find full text articles automatically	Yes	No	No
Link to PDF files on the Web or desktop	Yes. Additionally you can import a file or folder	No	Yes.

Feature	EndNote X4	EndNote Web 2.7	Reference Manager 12
	of PDFs directly to your library. The basic bibliographic data is extracted for **most PDFs** and you can even search the contents of a PDF.		
Online database searching	Yes	Yes	Yes
Find full text articles automatically	Yes	No	No
Store and cite images and objects	Yes	No	No
Create table and figure lists	Yes	No	No
Create a subject bibliography	Yes	No	Yes
Group references	Yes, custom or smart (for instant sorting)	Yes, custom groups	Not a straight forward function. Use keywords to identify references belonging to a group or use multiple databases
Max number of References	Unlimited	10,000	Unlimited
Use of terms lists e.g. Journal names or keywords	Yes global edits can be made to text in any record field including those for which terms are indexed: Use the Change Text command No direct editing of terms lists.	No	Yes. Easy to make global changes to terms lists.
Cite While You Write	Compatible with Microsoft Word 2003, 2007 and Word 2010 (32 bit version). Compatible with OpenOffice.org Writer 3 for Windows	(optional installation)	Compatible with Microsoft Word 2003, 2007 and Word 2010.
Construct	Yes	No	No

Feature	EndNote X4	EndNote Web 2.7	Reference Manager 12
document with MS Word templates – to guide you through the exacting manuscript requirements of publishers and useful for creation of Thesis.			
Spell check.	Yes	No	Yes
Number of output styles	4,500+ predefined; create your own	4,500+ predefined	1,000+ predefined; create your own

The importance of correct referencing in preventing plagiarism:

    Participants may bring up following issues in their discussion.

    Correct referencing,

1. will provide the reader a accurate pathway to find out the original resource. When the author referrers to the secondary source, then the reader will recognize it and he/she can find out the original source. This will be helpful to prevent misinterpretations. For instance, when an author may commit an error in how they interpret or use a source, by consulting the original source, the errors could be detected.
2. is helpful in obtaining clear and complete picture. Often, the authors only supply the selected portions of prior works that are directly relevant to the work at hand.
3. is helpful to establish the ownership (authoritativeness) hence the authors work can be clearly stated therefore allowing to view how closely works are related. Moreover, this practice will be helpful to locate relevant works.
4. will also prevent author form charging against unlawful purloining.

Moreover, the computer (Internet) based referencing software and indexing methods are helpful to detect references between works much more easily and efficiently.

How EndNote referencing software works
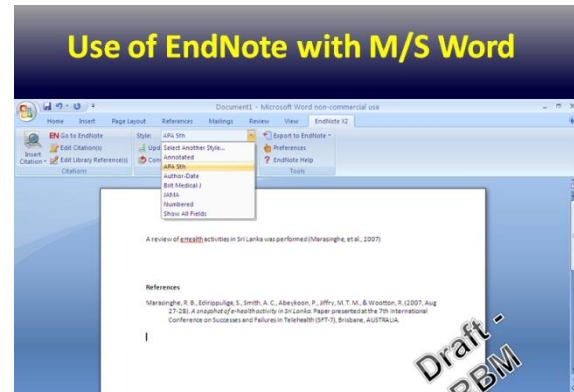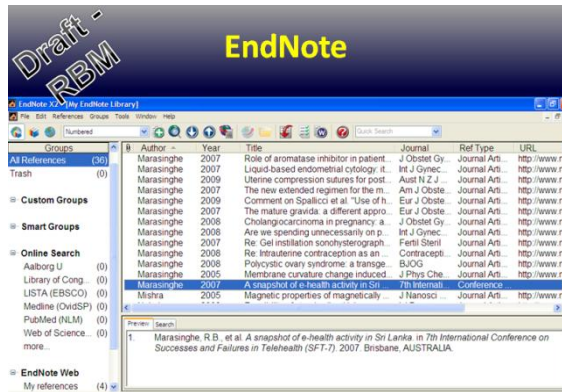
ii. **Out of Class (if any)**

Learning activity 16 (**Small Group Discussion**):

The participants will be asked to discuss issues associated with plagiarism detecting software.

Learning environment: This activity may be done either conventionally (face-to-face) or at a distance (e.g. Video Conferencing). The participants are encouraged to use their own knowledge and understanding together with resources other than internet (books, journals, magazines etc) in this discussion.

Possible learning outcomes:

The participants may bring up following points.

1. Cost: most effective software need to be purchased. Free software has a limited functionality.
2. Resources other than electronic will be exempted.
3. Even electronic, most software (especially free) have designed to find internet 'published' resources and may not detect all the publications.
4. Publications in different languages are difficult to detect.
5. There will be issues when detected plagiarism especially in the absence of clear policy to deal with. For instance, technically, any king of 'plagiarism' is punishable in most academic institutions. Therefore, in the absence of clear guideline, even unintentional plagiarism may be punished. On the otherhand, intentional plagiarism may be overlooked as 'lack of authenticity'.

4. Assessments

Design an educational blog site. Here are some guidelines.

- You may select any educational topic but it is highly encourage you to work on something interesting related to your L/T.
- Always try to apply relevant educational theories and principles.
- You may need to follow the steps discussed in previous sections (i.e. major stagers of the L/T, integrating different software useful in L/T etc.).
- Use the knowledge on plagiarism prevention and proper referencing and try to include them in your assessment.
- In the end, include a feedback form through which your colleagues (peers) can evaluate your blog. Asked them to grade the blog on a 3 point scale, ranging from 'needs improvement', 'average' and 'excellent'. As with the previous assessments, peer grading will influence on your final marking of this assessment.
- Total mark allocated for this assessment is 25%.

5. Essential Reading

- What is Plagiarism? (*http://www.wsulibs.wsu.edu/plagiarism/what.html*)

6. Supplementary Reading

- (*http://learning.londonmet.ac.uk/TLTC/learnhigher/Plagiarism/intro/intro.html*)

No of sessions: 0.5
(1.15min per Session)

1. **Learning Outcomes**

After successfully completing the session the participants should be able to,

- ascertain the changing nature of curriculum (and its components) and,
- form a 'learning group' through which they could exchanged their views/new knowledge to contribute positively towards better L/T.

2. **Lecture Outline**

- The changing nature of a curriculum (and its components)

3. **Learning/Teaching Resource**

   a. **Lecture Notes**
      None

   b. **Other Teaching materials (if any)**
      Web resources: all the resources used in the module will be from freely available Internet resources. However, the facilitator should be mindful that they are subjected to the copyright laws.

   c. **Activities**
      i. **In Class**
      Learning activity 17 (**Small Group Discussion**):
      Firstly the facilitator will introduce the curriculum and its components (Harden et.al, 2001) and then the participants will be asked to identify which component/s of curriculum is changing.
      Learning environment: This activity may be done either conventionally (face-to-face) or at a distance (e.g. Video Conferencing). The participants are encouraged to use their own knowledge and understanding together with resources other than internet (books, journals, magazines etc) in this discussion.

      Possible learning outcomes:
      The facilitator will present
      1. The changing nature of a curriculum (and its components)

The 'curriculum map'

Which of the following components of the curriculum will be changed?

1) expected learning outcomes,
2) curriculum content or areas of expertise covered,
3) student assessment,
4) learning opportunities,
5) learning location,
6) learning resources,
7) timetable,
8) staff,
9) curriculum management and
10) students.

(Harden *et al.*, 2001)

2. Play the video
(*http://www.youtube.com/watch?v=Fnh9q_cQcUE&feature=related*)

Participants may suggest that
> (a) almost all the above components will be changed.
> (b) with the influence of ICT, the change has been accelerated.

Learning activity 18 (**Small Group Discussion**):
The participants will be asked to form a learning group (e-mail group) through which they would be able to exchange their knowledge.

Learning environment: This activity should be done either conventionally (face-to-face) or at a distance (e.g. Video Conferencing). The participants are encouraged to send their e-mail to form a e-Mail group.

ii. Out of Class (if any)

4. Assessments
None

5. Essential Reading

-

6. Supplementary Reading
- Harden, R.M. (2001). Curriculum mapping: a tool for transparent and authentic teaching and learning, AMEE Guide No. 21: *Medical Teacher*. 23(2).
- http://www.cipe.org/programs/women/EssaysForWeb/Leanage.pdf
- http://en.wikipedia.org/wiki/Virtual_learning_environment
- http://www.youtube.com/watch?v=TMGR9q43dag&feature=related
- http://www.youtube.com/watch?v=vxohIjxheS8