ILPO55 Training Material – Instructor Guidelines

Adult Trainer

Unit 2

Technology enhanced learning

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UNIT 2: Technology enhanced learning

1. IDENTIFY DIFFERENT TYPES OF TECHNOLOGIES, WHICH CAN BE USED FOR LEARNING, AND EVALUATE THEIR EFFECTIVENESS.

Introducing e-learning

e-learning (electronic learning) means using a computer to deliver part, or all of a course. Most of the time the course is delivered online as distance learning and is mostly used for courses at higher education level. In its early days, critics argued that bringing computers into the classroom would eliminate the contact, face-to-face element of lecturing. But as technology developed, we now witness not just computers being used in classrooms, but laptops, tablets, smartphones and a number of other interactive gadgets that make distance learning not only engaging to the students but also very helpful from the tutor's perspective.

e-learning has blurred the traditional relationships between the student and lecturer and also between the student and the institute itself as there is no physical connection anymore. Nonetheless it has opened new opportunities and widened the target audience of prospective students. Many programmes are now being designed for working adults, who can study at their own pace without having to attend lectures on campus.

Even though e-learning does not have face-to-face, classroom based tuition, it still offers instructor-based experience through the use of videos, forums and chats. This form of learning distinguishes itself from self-learning modules, where students are expected to study and learn on their own without being offered extensive guidance.

Sometimes it is delivered live, where you can "electronically" raise your hand and interact in real time and sometimes it is a lecture that has been pre-recorded. There is always a teacher or professor interacting /communicating with you and grading your participation, your assignments and your tests

Benefits of e-learning

- Cost effective
  Since students do not have to be on campus every day, travel and lodging costs are kept to a minimum. The student can study from his own office/home on his own personal computer. Also most of the material is sent online, thus doing away with printed materials.

- Learning 24/7, anywhere
  Many classroom based courses have fixed timetables and the students need to be present in class to follow the lecture. E-learning removes these geographical boundaries and overomes timing issues as students can study when and where they like. This creates less disruption to their daily routine.

- Easier to keep track
  Most of the software programmes on which students study, offer the facility to study at your own pace. Thus one can decide to pause the lecture and resume whenever he feels like it without the need to start all over again. Also it keeps track of one's progress where proof of mandatory training is required.

- Discreet
  e-learning gives the possibility of studying alone and where you feel the most secure. Not everyone is comfortable studying in a classroom and discussing/asking question in front of other peers. Thus with the use of e-learning one can tackle the subject with interactive tasks at your own pace.

The notion of blended learning

Whereas e-learning is most of the time delivered completely online or through electronic mediums, blended learning is e-learning combined with other traditional face-to-face training methods. It is considered as one of the most effective forms of learning.

Blended learning is also used when apart from the theory, which can be taught through e-learning platforms, one also needs to learn the practical aspect of the subject. During face-to-face lecturing the student can receive personal feedback and take part in hands on workshops while the online material can be used for revision and catching up on extra material. Online learning is beneficial when it comes to revision but also a way to re-watch the lecture over and over again when one would not have understood the topic during the lecture.

The benefits of using blended learning is that it offers more opportunities and different ways of studying. It allows for more interactive online methods of learning but at the same time still keeps the possibility for face-to-face discussions with the tutor.

With the notion of 'flip the classroom' style the student is able to watch multiple videos and read beforehand articles related to the topic to be discussed during the next lecture. In this manner the student would already be prepared and thus can use this material during the discussions and workshops in class.

Blended course increase flexibility of studying but at the same time do not eliminate the need for students to be present on campus. These programs provide increased access to distant students who are able to be present on campus for only some of the courses offered. The rest of the academic material should be available online for those distant students.

Interactive whiteboards

An interactive whiteboard is a piece of hardware that looks much like a standard whiteboard. It is an instructional tool which allows you to project computer images onto a board by means of a digital projector. The lecturer can then manipulate the images on screen by using his finger or pen instead of the mouse. Anything that can be accessed from your computer can be accessed and displayed on the interactive whiteboard. Using special software included with the interactive whiteboard, you can also interact with images and text projected on the board. This means of technology promotes creative teaching as it incorporates different learning styles.

It increases interactivity in the classroom as it integrates the use of media content during the lecture. An interactive whiteboard is also cost effective as with one computer one can reach the whole classroom. Interactive whiteboards promote group discussion and participation. They are an effective tool for brainstorming as notes made on the screen can be turned into text, and saved to be shared and distributed later.

Research has repeatedly demonstrated that students learn better when they are fully engaged and that multisensory, hands-on learning is the best way to engage them. The use of interactive

whiteboards in the classroom provides a useful focal point for the student. Not only because one can easily zoom on a specific picture or text but also because the teacher can work from the whiteboard itself, not needing to move from the desk up to the whiteboard each time. This keeps the students' attention focused on the activity at hand.

Because of the different styles one can use on the interactive whiteboard, such as pictures, music or physical interaction, this type of technology engages all types of learners.

Learning Management Systems

A learning management system (LSM) is a software application mostly used to plan, implement and access a specific training programme. It is highly used amongst lecturers as it offers the possibility to create and deliver content amongst the students while at the same time monitor the students' participation and performance.

LSM is used to deliver blended training. LSM offers the opportunity to upload online the material for online courses but at the same time it lets the user monitor the students when it comes to courses delivered on campus. Thus a learning management system delivers content but also handles registering for courses, course administration, skills gap analysis, tracking, and reporting. LMS products and software allow any institution to develop electronic coursework, deliver it with unprecedented reach and flexibility, and manage its continued use over time

Modern training needs to be easily accessible. A learning management system (LSM) allows you to keep track, follow and create training online on your own device. Most LMSs are web-based to facilitate access to learning content and administration. Some LMS providers also include performance management systems, which encompass employee appraisals, competency management, skills-gap analysis, succession planning, and multi-rater assessments.

Some functions of LSM:

- Course Content Delivery
- Student Registration and Administration
- Training Event Management (i.e., scheduling, tracking)
- Curriculum and Certification Management
- Skills and Competencies Management
- Skill Gap Analysis
- Individual Development Plan (IDP)
- Assessing and resulting
- Reporting
- Training Record Management
- Courseware Authoring
- Resource Management
- Virtual Organizations
- Performance Management System Integration

Advantages of using LSM:

- Easily adapting and reusing materials over time.
- More choices for creators of curriculum, such as method of delivery, design of materials, and techniques for evaluation.
- Creating economies of scale that make it less costly for organizations to develop and maintain content for which they used to rely on third parties.
- Improvements in professional development and evaluation, allowing companies to get more value from human resources while empowering individuals with additional tools for self-improvement.

Online Collaboration Tools

When it comes to collaboration, communication is the key. Collaboration software can take many forms, from simple instant messaging, to conferencing and telephony, to video conferencing. Usually the software is a web based application containing a number of capabilities within one platform, either built directly in, or integrated with other applications. Online collaboration involves a team working together, often at the same time, and on the same documents.

The use of online collaboration tools is to support a group of people (two or more) to accomplish a common goal as it allows individuals to exchange information between themselves on one platform, irrespective of their geographical location in real time.

Functionality of online collaboration tools is sometimes further expanded by providing for example integrated online calendars, shared online-whiteboards to organize tasks and ideas or internet teleconferencing integrations. The variety of available online collaboration tools is overwhelming. Their focus ranges from simple to complex, inexpensive to expensive, locally installed to remotely hosted and from commercial to open source.

Online collaboration tools can:

- facilitate real-time and asynchronous text, voice, and video communication.
- assist in basic project management activities.
- support co-creation by enabling groups to modify output in real-time or asynchronously.
- facilitate consensus building through group discussions and polling.
- simplify and streamline resource management**.**
- enable local and remote presentation and archiving of completed projects.

Learning through games

Learning through games can take various forms, namely:

- role-playing,
- adventure games
- simulation, and
- the use of digital games

Game-based learning environments were in the past prohibitely expensive for most organisations and were restricted to sectors like aviation and the military. Technological advances have made it possible for game-based learning environments to become more accessible. More recently, medical schools have begun to rely on games and simulations, and practice on these tools is now encouraged or even required. Simulation training has shown to be a powerful proof-of-concept, and an endorsement of learning effectiveness in the military camp and because of this endorsement; it is being diffused in other education sectors.
Indeed, the diffusion of learning through games has become successful because:

- advances in raw processing power resulting in lowering costs of setting-up; and
- a growing crop of designers and developers literate in the medium of games have amassed a critical level of knowledge of software development.

Games that focus on choice-consequence learning generally are run on standard terminals and require no expensive peripherals, and can be downloaded and installed in minutes. Interestingly, while both hardware- and software-based games have become much simpler and more accessible for end-users, the underlying game design has become significantly more sophisticated.

Benefits of game-based learning

Game-based learning has the potential to engage and motivate students and offer custom learning experiences while promoting long-term memory and providing practical experience. Furthermore, games appeal to the development of more than just one skill; in particular enhancing mental quickness.

According to Griffiths, (2002) video or digital games provide a great tool for conducting educational research; offering 'great diversity,' while attracting students of various demographic backgrounds. Digital games teach students to be strategists; provide helpful feedback, and maintain records for measurement purposes, which at the same time, stimulates and motivates learning.

Paper: Griffiths, M. (2002). "The educational benefits of videogames." *Education and Health*. 20 (3), pp. 47-51.

Link: http://sheu.org.uk/sites/sheu.org.uk/files/imagepicker/1/eh203mg.pdf

Limitations of digital game-based learning

It is however argued that digital game-based learning can become a distraction and that the goals of the games do not necessarily always align with the learning goals.

Furthermore, advances in technology require constant support and hence can become a recurrent cost. Also some students, either because of background or lack of IT skills, may not have equal access to this type of instructional tool.

Various research on benefit of game-based learning

Link: http://journalistsresource.org/studies/society/education/outcomes-of-game-based-learning-research-roundup

Another tool which is being significantly diffused into the learning environment is:

Videocasts and Podcasts

A podcast is a form of digital media that consists of series of episodes of audio, video (referred to as videocasts), digital radio, PDF, to which one subscribes to. These are generally downloaded automatically through web syndication or streamed online to a computer or a mobile device (refer below to tablets and mobile learning).

Although initially videocasting and podcasting were being used to help build businesses in terms of sales and marketing, podcasts have been increasingly used as interactive teaching tools. Technological advances have enabled teaching institutions to create high-quality media with just a camera, editing software, and the Internet, making it accessible and easy to use by all.

Benefits of podcasts as a teaching tool:

- Podcasts make information personal with content communicated directly to the listener, either verbally or through video.
- Podcasts are convenient on-demand technology; facilitating learning in a time-efficient way and are automatically downloaded to mobile device or PC, making learning portable. Students can tap into the learning environment from anywhere in the world; at any time.
- In an increasingly environmentally-aware generation, podcasting is an environmentally-friendly way of learning - cut costs of printing and paper and are easy to archive.

Tablets and mobile learning

At the beginning of the 1990s, the stability of the personal computer structure and industry changed; laying the foundations for the tablet market on the back of surging desire for more mobility in computing. However, the early tablets were rather expensive to make; bulky and with limited memory and functionality. Several technological advancements created a revolution – the converging to produce the eBook reader, handheld devices including Personal Data Assistants [PDAs], the business users – Blackberrys; MP3 players and the iPod, and Apple Inc's extraordinary merging of the iPod, the iMac, the iPhone and ultimately the iPad which has spearheaded the tablet market.
Tablets made learning more personal facilitating interactive learning. They offer a number of advantages for education in comparison to laptops or netbooks:

- lighter in weight and their orientation flexibility makes them far superior for digital reading or accessing of informational content, while at the same time enhance mobility in comparison to laptops
- instant-on capability and fast switching among applications allows learning activities to proceed with less delay. Furthermore the long battery life makes them more suitable in the learning enviroment
- touch-screen interface allows a high degree of user interactivity
- since it is inexpensive to develop apps for mobile platforms, there is a rapidly growing amount of free or low-cost apps for tablets, many of which are suitable for education.

Article: Students' Mobile Learning Practices in Higher Education: A Multi-Year Study**.** Authors: by Baiyun Chen, Ryan Seilhamer, Luke Bennett and Sue Bauer

Link: http://er.educause.edu/articles/2015/6/students-mobile-learning-practices-in-higher-education-a-multiyear-study

2. DESIGN MULTIMEDIA MATERIALS TO BE APPLIED TO TECHNOLOGY ENHANCED TEACHING SCENARIOS.

Effective use of presentation software

Five rules for effective presentations:

1. **Do not give the presentation software center stage.** The PowerPoint or Keynote are tools designed to *augment* their presentation not *be* the presentation. The message should be the focus not the slides and the slide effects; props or the handouts.

2. **Create a logical flow to the presentation to** tell a story. Avoid having a presentation with a random assortment of bulleted lists, which is what often happens. There *must* be a flow.

3. **Make the presentation readable:**
   - *Avoid paragraphs or long blocks of text.*
   - *Use appropriate fonts.*
   - *Avoid detailed reports.*
   - *Reserve "title capitalization" for titles.*

4. **Remember, less is more.** Fancy slide transitions and fly-ins distract the listener. Slides should be kept simple and a basic dissolve from one slide to another is usually sufficient.

5. **Distribute handouts after the presentation.**

Video: How to Give an Awesome (PowerPoint) Presentation (Whiteboard Animation Explainer Video). https://www.youtube.com/watch?v=i68a6M5FFBc

Video: How to Do a Presentation - 5 Steps to a Killer Opener
https://www.youtube.com/watch?v=dEDcc0aCjaA

Video: A seminar on How To Avoid Death By PowerPoint, full with practical usable tips
https://www.youtube.com/watch?v=bOrHxRB3JrQ&list=PL5SAO7G3V7BeU4SYu-f6jiDTZ8JmDSNYp

Assignment

Choose a topic of your choice and prepare a 20-minute power point presentation on the topic. Marks will be awarded on the clear slide presentations and delivery.

Interactive multimedia tools

Interactive media is a means of communication whereby the output from the media comes from the input of the users. The participation of users is important for interactive media to work, as their input adds interaction and brings interesting features. Interactive multimedia shift the user's role from observer to participant and are considered the next generation of electronic information systems.

Interactive multimedia, any computer-delivered electronic system that allows the user to control, combine, and manipulate different types of media, such as text, sound, video, computer graphics, and animation. Interactive multimedia integrate computer, memory storage, digital (binary) data, telephone, television, and other information technologies.

Interactive multimedia is also called a 'hybrid technology', a combination of the storage and retrieval capabilities of computer database technology with advanced tools for viewing and manipulating these materials. Multimedia has different meanings and the definitions may vary depending on the context. In the context of upper secondary and postsecondary education, interactive multimedia is defined by three criteria:

- Interactive Multimedia is any package of materials that includes some combination of texts, graphics, still images, animation, video, and audio;

- These materials are packaged, integrated, and linked together in some way that offers users the ability to browse, navigate and analyze these materials through various searching and indexing features, as well as the capacity to annotate or personalize these materials;

1. Interactive multimedia is always "reader-centered." In interactive multimedia, the reader contols the experience of reading the material by being able to select among multiple choices, choosing unique paths and sequences through the materials. One of the key features of interactive multimedia is the ability to navigate through material in whatever ways are most meaningful for individual users.

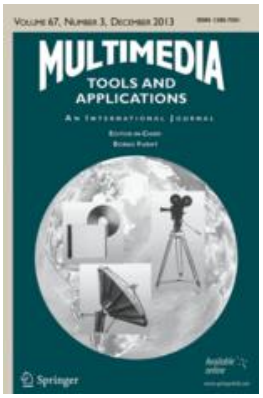
Most common applications:

- Training programs
- Video games
- Electronic encyclopaedias
- Travel guides

The most common multimedia machine consists of a PC with a digital speaker unit and a CD-ROM (compact disc read-only memory) drive, which optically retrieves data and instructions from a CD-ROM. Many systems also integrate a handheld tool (*e.g.,* a control pad or joystick) that is used to communicate with the computer. Such systems permit users to read and rearrange sequences of text, animated images, and sound that are stored on high-capacity CD-ROMs. Systems with CD write-once read-many (WORM) units allow users to create and store sounds and images as well. Some PC-based multimedia devices integrate television and radio as well. Among the interactive multimedia systems under commercial development by the mid-1990s were cable television services with computer interfaces that enable viewers to interact with television programs; high-speed interactive

audiovisual communications systems that rely on digital data from fibre-optic lines or digitized wireless transmissions; and virtual reality systems that create small-scale artificial sensory environments

Source: **Encyclopaedia Britannica**



Recommended reading: An International Journal (Editor-in-Chief: Borko **Furht)**
ISSN: 1380-7501 (print version)
ISSN: 1573-7721 (electronic version)

Presentation: Multimedia tools for educators: http://www.slideshare.net/jmurdock3/multimedia-tools-for-educators

Use of interactive multimedia

Interactive multimedia has the capacity to deliver large amounts of materials in different multiple forms, and to deliver them in an integrated environment, allowing users to control the reading and viewing experience.

Multimedia programs bring to education the storage and delivery capabilities of computerized material. This is very important for schools, libraries, and learning institutions where books are difficult to acquire and to be kept updated. Multimedia is a powerful and efficient source for acquiring learning resources. Multimedia can also provide educational institutions access to other kinds of inaccessible materials, such as hard to find historical films, rare sound recordings of famous speeches, illustrations from difficult to obtain periodicals, and so on. Multimedia can put primary and secondary source materials at the fingertips of users. It is not just sheer access to these materials that makes multimedia a powerful tool, but the control over those materials that it gives to its users. Interactive multimedia programs enable the user to manipulate these materials through a wide variety of powerful linking, sorting, searching and annotating activities.

Interactive multimedia programs usually integrate some combination of orientation tools, such as timelines, graphs, glossaries, and other pedagogical guides. These kinds of tools further point to the third major benefit of multimedia: the personalization or individualization of the learning experience.

Educational multimedia packages and programs come in the same range and variety as printed textbooks, and all other teaching and reference materials. Some multimedia programs are broad and comprehensive; some are more focused. Some programs address themselves to introductory students in a particular subject; some are suitable for more advanced students, or for teachers and

scholars, or for the general public; and some work well at all ends of the spectrum depending how they are used.

Source: http://faculty.georgetown.edu/bassr/multimedia.html

Creating basic websites, social media tools, blogs

Step by step guide to setting up a basic website

1. Domain Name

   The first step is to set a domain name - the name of your website. There is a cost to have a domain name, an annual fee to be paid to the registrar for the right to use the name. It is similar to registering a business name.

2. Choose a Web Host

   A company with many computers connected to the internet is called a web host. When you place your web pages on their computers, users can connect and view them. You will need to sign up for an account with a web host, to enable a home to your website. As clearly stated, since a domain name is similar to getting a business name, setting a web hosting account is similar to renting an office for your business. It is imperative to find a good web host. Signing up for a web hosting account, will be followed by pointing your domain to that account on your web host.

3. Designing your Web Pages

   Once your domain name and web host are set, the next step is to design the web site. You can either do the design yourself or you may hire a web designer to do the job, in which case, you can skip this step. There are many considerations in web design, but the first step is to actually get something out onto the web, then the fine-tuning can come after having figured out how to publish a basic web page. One can find a number of web design software around.

4. Website testing

   This step is part of the web design process. The testing of your web pages is to be carried out major browsers that can be obtained free of charge: Chrome, Firefox, Safari and Internet Explorer 11. Testing of your site will ensure that it works properly, as you want it to on your visitors' machines.

5. Collecting Credit Card Information, Making Money

   If the website is used to sell products or services, you will need some way to collect credit card information, in which case you will have to add an 'Order Form' or a 'Buy Now' button for those using PayPal. There is also the possibility to make some money from your website, attracting advertisers to promote their products and services. Some companies are on the constant lookout for new web publishers to display their advertisements.

6. Getting Your Site Noticed

Once ready, you can submit your site it to search engines like Google and Bing. Although, if your site is already linked to by other websites, may be that there is no need to submit it to these search engines, as they will probably find it themselves by following the links on those websites.

The above step by step guide is not exhaustive but essential steps in getting started with your site.

Source: Christopher Heng, thesitewizard.com

Guide to creating a social media content

Today, social media marketing should be an integral part of the marketing plan. In the development process of the social media content, you have to keep in mind that the content is to be shared not only through internal marketing campaigns but across other social media networks.

How can social media content be successful?

1. Set achievable goals

In business having goals is critical to effectively measure success. When you set up your marketing plan, setting up of goals is a must, to measure the effectiveness of the marketing initiatives. Instead of trying to achieve organisational goals considered as more generic, set explicit goals for each content project. Some explicit goals that may be set up:

- Set a number of social media mentions in a week
- Increase Facebook likes by a percentage over the previous period
- Set a number of people fill out our contact form in a month
- Set a number of people download our content piece each week
- A percentage increase in traffic from social media networks over a period of time

Goals have to be reasonable and based on analytics data, so that the specific goals will allow you to accurately measure the success of your content piece.

2. Establish what is important to your viewers

People use social media networks to convey a message; who they are, build their personal brand and connect with others. The content people share on social networks provides a clue as to what they are interested in. It is worth pointing out that in actual fact people are not passionate about the product offering. They are passionate about the results of your product offering and how they are affected. You will only be a success if you manage to create a content that appeals your audience and address what is mostly important for them.

3. Create Useful Content

Once you know the content your audience are passionate about, you can use that information to create what is required. The content developed should be something that educates, interests or entertains your audience. An element of humour triggers emotion, so creating humorous content is a way to garner a reaction from your audience. It depends a lot on the audience, as if you are not sure that they are not funny, you should think it again.

4. Make It Easy To Share

You have to ensure that every piece of content produced has social sharing buttons. Sharing should be user friendly, most commonly at the top of the page or underneath the content. You may come across a great content piece with no social sharing toolbar, button, etc. When people share on Facebook, LinkedIn or other networks, often times the description provided serves as the preview text displayed along with the link.

Source: http://marketingland.com/4-ways-to-create-successful-social-media-content

Creating a blog site

To create a blog you do not need any development or design skills. To set up, start and manage your own blog is very easy.

Step 1: Select the software to be used

The three most popular free blogging tools are Wordpress, TextPattern, and Nucleus. You can find some others.

Step 2: Find a host supporting your chosen software

You will certainly need hosting to activate your blog. The key to finding the right host is to get one specialized in supporting the software you like. There are questions that have to be asked to the hosts in order to ensure they are good to host your software. What do they install, what themes they install and the level of support if there is a problem with the blog that is not hosting related.

Step 3: The right theme for your blog

Your design will be ready, as your basic blog software installation always comes with a default theme. If you do not like the theme and prefer a unique theme, one can find a wide range of free or paid themes for your blog, that can be installed on your own from the backend of your software.

Step 4: Let us start blogging

Once all is set, you can start blogging.

The Role of the Tutor

The tutor plays an important role in enhancing the academic and personal development of the students. The role is essentially twofold: academic development and pastoral care.

1. **Understanding - a tutor must explain clearly that s**tudents understand a concept before he or she can learn it. The tutor is there to help a student understand.
2. **Evaluates – a tutor can identify clearly the student's strengths and weaknesses. The tutor will then support the student to improve in particular areas. This will avoid tough times when the student will have to struggle to be in line with other students.**

3. **Working with the class program -** tutor's job is to add to what the student learns in class. The tutor helps the student review the requirements of the class, and to decide how to meet those requirements.
4. **Checking progress – it is imperative that s**tudents must do their own homework. A tutor must not do homework for students. He can then check the homework to see if students are mastering the material. Discussion to highlight any weak points will help.
5. **Planning** – a plan of action is necessary by the tutor to help the student master the subject matter. The tutor's role is to assist the student in setting and achieving the set goals.
6. **Discipline – students have to be disciplined and the tutor is expected to play a role in encouraging them to be disciplined.** Some students need another person to help them stay on track. Friends are not the right people and the tutor can help students remain focused during their course of study.
7. **Supportive - tutor has to be supportive as d**ifficult classes can make a student discouraged. There were instances when students have changed their career plans because they find a subject difficult to understand. Tutor can help in avoiding a student becoming frustrated.
8. **Study skills - study skills are very important for the student especially managing study time.** The tutor can help the student learn how to learn better and faster by organizing how they study.

Source: http://anokaramsey.edu/en/resource

Different Learner roles

Whilst in training and development the role of the trainer is critical, one must not overlook the importance of the role of the learner. If the learner adopts a completely passive or do nothing approach to learning it is likely that the training objectives and learning outcomes will not be achieved. It is important that learners adopt an active learning style because it is only in this way that knowledge, skills and experience are transferred and learners would be able to develop and grow in their role and be promoted with higher responsibilities and accountabilities. Learners should be required to adopt different learner roles for the training to become effective.

The table below summaries the different types of learner roles as well as predictable benefit to the learner of each approach

Roles, Conditions for role assignments, and Predictable educational benefits

Role	Condition	Predictable benefits
Anchored instructor	* having the target knowledge * knowing how to diagnose others - not having experience in diagnosing others	Acquisition of content specific knowledge (tuning) Development of cognitive skill (associative stage)
Apprentice	- not having the knowledge how to use the target skill - not having the experience to use the target skill	Development of cognitive and/or metacognitive skill (cognitive stage & associative stage)
Audience	* having the target knowledge * having experience in using the knowledge * having related knowledge in the domain	Acquisition of content specific knowledge (restructuring)

Client	* knowing how to use the target metacognitive skill	Development of the metacognitive skill (associative stage)
Diagnoser	* knowing how to use the target cognitive skill	Development of the cognitive skill (associative stage)
Full participant	* having the target knowledge * having experience in using the knowledge * having related knowledge in the domain * knowing how to use the target cognitive skill * having experience in using the cognitive skill * having how to use target metacognitive skill * having experience in using the metacognitive skill	Acquisition of content specific knowledge (restructuring) Development of the cognitive skill (autonomous stage) Development of metacognitive skill (autonomous stage)
Master	* knowing how to use target cognitive skill * having experience in using the cognitive skill * having how to use target metacognitive skill * having experience in using the metacognitive skill	Development of cognitive and/or metacognitive skill (autonomous stage)
Observer	- not having the target knowledge - not having the knowledge how to use the target skill	*depending on what to observe*
Panelist	* knowing how to use a skill for self-expression * having his/her own opinion - not having experience in using the skill for self-expression	Development of skill for self-expression (associative stage)
Peer tutee	- not having the target knowledge	Acquisition of content specific knowledge (accretion)
Peer tutor	* having the target knowledge - not having experience in using the knowledge - misunderstanding the knowledge	Acquisition of content specific knowledge (tuning)
Peripheral participant	* knowing how to use the target cognitive skill * knowing how to use the target metacognitive skill - not having experience in using the cognitive skill - not having experience in using the metacognitive skill	Development of cognitive skill (associative stage) Development of metacognitive skill (associative stage)
Problem (Anchor)	* having a problem - having related knowledge to solve	Acquisition of content specific knowledge

holder	the problem	(tuning)

Source: http://www.iswc2004.semanticweb.org/pub/ina/ina_its04.pdf

Please refer also to the presentation "The role of the teacher and learner"
Link : http://www.slideshare.net/lasminiati/the-roles-of-teachers-and-learners

3. APPLY TECHNOLOGY ENHANCED LEARNING IN OWN TEACHING.

Dealing with Adult Learners and Fear of Technology

It has been proven that it is easier for children to adapt to technology and its advances when compared to adult learners:

Why?

- children are unaffected by failure and they just move on whilst adults do not take this approach;
- children tend to be more receptive to change and new ideas than adults; and
- children are not afraid of failure as adults are.

Whilst financial services practitioners are involved in technology because it is part of their work, there would still be adult professionals who are not technology savvy and who are afraid of technology. This may arise because such professionals may not have kept up with technological advances, may have resisted technological change in their own workplace and their employer may not have provided adequate training and support on technological issues

What measures can be taken to alloy fears of technology in adults?

1) Provide visual demonstration to the class to illustrate how something is done (use a projector or interactive whiteboard).

2) Provide computer labs or other facilities during and outside lesson times. Ensure that the computers in the lab work and there is internet access as it may be demotivating for adult learners to find computers not working and/or not having internet access. Encourage use of computers after training sessions.

3) Show adults how they can trouble shoot in case of need and illustrate self-help options built within the system.

4) Do not use complex language or technical jargon in coaching IT students.

5) Introduce new skills gradually and give the adult learners time to bed in.

6) Adult learners need to be patient since their grasp and take up of technology is new to them and may take time. Repetition is important.

7) Avoid taking over the computer and solving the problem for adult learners. In this way they will not learn and it may demotivate them.

Creating a fair online learning environment

Over the recent years there has been a rapid growth in online learning. As demand for online learning grew, concerns have emerged about the quality of such type of learning. The following are factors which lead to an effective and fair online learning environment.

Safety and Fairness: Students need to be accepted by the trainer and their peers as would have been the environment in face to face tuition. In online discussion, the students need to know who is communicating with them and certain minimum standards of etiquette and respect would be observed at all times. Abuse and bullying should not be tolerated.

Supportive Environment: Responding to queries and issues within a reasonable time frame an engaging with students to address any issues or concerns that they may have would lead to a supportive learning environment where students do not feel isolated or alone.

Communication: Communication between trainer and learner and between learners themselves is essential. The more communication there is, the more effective the learning will be and open and honest communication leads to a fair online learning environment.

Flexibility: One of the benefits of online learning is that it allows flexibility and learning can work on their course potential on a 24x7 basis. This type of flexibility should not be inhibited in any way and more important innovation and initiative should be encouraged and students should be allowed to research, comment upon and discuss topics of their liking that are relevant to learning outcomes.

Criteria for evaluating technology enhanced learning.

Technology has become a very important and powerful tool in improving learning outcomes. Ongoing evaluation of such technologies is essential in order to ensure that this learning tool is adding value to the educational process and benefits of blended / on line learning are being achieved.

The evaluation of technology enhanced learning can be undertaken through the adoption of the following process:

1) Set the planned objectives for technology based learning.
What is the trainer aiming to achieve through technology based learning? By way of example, is the trainer looking to expand knowledge in a particular area, improve technological dexterity or encourage dialogue between learners?

2) Set measurable targets for these planned objectives.
How is the trainer going to determine that the planned objectives have been reached? Ideally the metrics for the targets should be measurable and not subjective.

3) Collect the measurable data and evaluate the data against the targets set. In need use a score card to facilitate your analysis.

4) Review the technological learning process after you have undertaken the analysis set out in (3) above. If the goals set have been exceeded no action may need to be taken but if on the other hand this is a shortfall vis a vis targets, then the programme may need to be tweaked/enhanced.

Please see http://ccis2k.org/iajit/PDF/vol.4,no.2/8-Zaied.pdf