
UNIT 1 APPROACHES TO ONLINE TRAINING

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1.0 INTRODUCTION

You must be aware that open universities, distance teaching institutions, and traditional higher education institutions have increasingly embraced online education. There is tremendous increase in student enrolment in need-based, professional, and general courses during the past few years. As a result the open universities and educational institutions have been opting for online education. However, there are various issues related to online education, faculty training and support is one of them. Each and every faculty needs training to become high quality online instructor.

Those of you have studied the new course MDE 418 “Educational Communication Technologies” in the first year of M.A. (DE) have developed knowledge about e-learning. You may see the Unit 9 (Block 2) of the course. Those who have not studied this new course may also have some idea about e-learning. This is the first unit of this block on online training. At the beginning of the unit, we have touched upon various tools for e-learning environment. We have discussed few instructional design models for online education/training. We have highlighted the traditional instructional design models, and then discussed in detail the constructivist models. We have discussed pedagogical role of teacher in online education. We have also addressed the issues of cultural dimensions of online teaching learning/ training and highlighted some multidimensional and multi cultures models. At the end we have discussed the impact of research studies on practice.

If you want to study the models and research studies in more detail, you may consult the full articles or documents as detailed in reference sections of this unit. You may also consult related articles as listed at the end of this block.

1.1 OBJECTIVES

After reading this unit, you should be able to:

- list the tools for e-learning environment;
- identify different instructional design models for online learning/training;
- discuss the constructive and mixed approaches for online training;
- discuss the pedagogical role of teacher in online education;
- describe multidimensional and multi cultures models for online learning/training; and
- explain the impact of research studies on practice for online training.

1.2 TOOLS FOR E-LEARNING ENVIRONMENT

Different learning technologies are available today that can be integrated in teaching, learning and training process. These technologies have opened ways for various approaches to learning to be delivered online with innovative ways to interact with instructors and other participants. Here, we shall highlight some of the tools that are used in e-learning environments. You may be familiar with all these tools or some of them.

Electronic Portfolio (e-Portfolio)

An electronic Portfolio is a collection of electronic evidence assembled and managed by the user on the Web. It may include text, electronic files, multimedia, blog entries, hyperlinks, and so on.

Electronic Performance Support System (EPSS)

According to Gery (1991) electronic performance support system is an integrated electronic environment that is available to and easily accessible by each employee and is structured to provide immediate, individualized online access to the full range of information, software, guidance, advice and assistance, data, images, tools, and assessment and monitoring systems to permit job performance with minimal support and intervention by others.

Personal Digital Assistant (PDA)

Personal Digital Assistant is a device that combines computing, telephone, fax, internet and networking features. It can function as cellular phone, fax sender, Web browser and personal organizer. It can also react to voice input by using voice recognition technologies.

PDA's are also called palmtops, hand-held computers and pocket computers. Many PDA's can access the internet and intranets via Wi-Fi or Wireless Wide Area Networks.

CD-ROM

CD-ROM (Compact Disc, read only memory) is an adaptation of the CD that is designed to store computer data in the form of text, graphics, and stereo sound.

MP3 Player

An MP3 player is an electronic device that has the primary function of storing, organizing and playing audio files. Some have image-viewing and video playing support.

Web site

A Web site is a collection of related Web pages, images, videos, or digital assets that are addressed relative to a common Uniform Resource Locator (URL). It often consists of only the domain name, or the IP address, and the root path in an Internet Protocol-based network. All publicly accessible Web sites collectively constitute the World Wide Web.

Websites are hosted in a computer called a server. Each individual computer interfaces with the server computer through a web browser e.g., Microsoft Internet Explorer. When a specific address is entered into the address bar of the browser, the server supplies that web page.



Web 2.0 tools

The term Web 2.0 describes a second generation of the World Wide Web that is focused on the ability for people to collaborate and share information online. It basically refers to the transition from static HTML Web pages to a more dynamic Web that is more organized and is based on serving Web applications to users.

Web 2.0 tools such as Weblogs, RSS, Video casting, Social bookmarking, Social networking, Podcasts and Picture sharing sites have become popular (www.webopedia.com/TEE/W/Web_2_popint_0.html). Web 2.0 is the place where the users could read and write. The teachers/trainers can generate contents online through collaboration. For detail understanding on Web 2.0 tools, you may see the Unit 17 (Block 4) of course MDE 418 of MA (DE).

Bulletin Board System (BBS)

A bulletin board system is a computer system running software that will allow you to connect and log in to the system using a terminal programme. Once logged in, you can perform functions such as uploading and

downloading software and data, reading news, and exchanging messages with other users such as your colleagues, friends, instructor, either through email or in public message boards. A BBS with multiple phone lines often provide chat rooms that allow you to interact with other users.

Discussion Board

A discussion board is a general term for any online bulletin board where you can leave your messages and expect to see responses to these (time of response may vary from few minutes to few days/months). It is also known as discussion group, discussion forum, message board, online forum, and so on.

Collaborative software

Collaborative software includes a range of software applications designed to allow multiple users to collaborate on related tasks on either local or remote servers. It is also called groupware.

Electronic mail (email)

You may be using email regularly in the office or at home and familiar with its various components and functions. Electronic mail is a method of exchanging digital messages across the internet or other computer networks. Web-based email like Yahoo mail, Hotmail etc allows you to access your own account from any computer with an internet connection. You can send mails to multiple recipients simultaneously, and can attach files e.g., images, word-processed documents etc with each mail and also receive the same from other users. You may send and receive email text messages through a programme e.g., Microsoft Outlook installed on your computer, which sends and receives information through an e-mail server provided by your university/office network.

Blog

Blog is becoming increasingly popular day by day. A blog is a type of web site or collaborative social network site. You can maintain your blog with regular entries of commentary, descriptions of events, or other material such as graphics or video.

Wiki

A wiki is a Web application whose content is collaboratively added, updated, and organized by its users. Wiki's content is editable through a Web page interface. However, wikis are inherently amorphous. You may create the content, define the relationships, and establish the link between the Site's Web pages. (Michell, 2008).

Learning Management System (LMS)

A learning management system (LMS) is a software application for the administration, documentation, tracking, and reporting of training programmes, classroom and online events, e-learning programmes, and training content. According to Ellis (2009) a LMS should be able to do the followings:

- Centralize and automate administration
- Use self-service and self-guided services
- Assemble and deliver learning content rapidly
- Consolidate training initiatives on a scalable web-based platform

- Support portability and standards
- Personalize content and enable knowledge reuse.

Several LMS products are available now-a-days. Two well-known open-source course delivery platforms are Moodle and ATutor. Moodle is guided by the social constructivist learning theory (see sub-section 1.3.2 of this unit). According to this theory, the learners construct new knowledge as they interact with their environment. While working with others they can develop a shared meaning. The software comprises various modules that include assignments, chats, forums, glossaries, lessons, journals, quizzes, resources and so on. For detail understanding on LMS, you may see the Unit 20 (Block 4) of course MDE 418 of M.A. (DE).

Many universities (both open and traditional universities) have been using various online tools for programme delivery, support to the learners and assessment and evaluation. Studies have been reported with regard to use of blogs to promote student collaboration and reflection (e.g., Baggaley, 2003); Wikis (e.g., Lamb, 2004); podcasting (e.g., Sloan, 2005), and so on. With the emergence of open source learning management system such as Moodle in 1999, several educational institutions have started using open source LMS.

Check Your Progress 1

Notes: i) Space is given below for your answers.
ii) Compare your answers with those given at the end of the unit.

i) What are the functions you can perform with bulletin board system?

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ii) What is a learning management system?

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1.3 ONLINE INSTRUCTIONAL DESIGN MODELS

In this section, let us, focus on instructional design models developed by different educators and researchers.

Let us answer two questions first. What is instructional design? What are instructional design models? Instructional design is the systematic development of instructional specifications using learning and instructional theory to ensure the quality of instruction. Instructional design models are guidelines or set of strategies, which are based on learning theories and best practices (Moallem, 2001).

A number of instructional design models have been developed. Two commonly used models and principles are: (a) Objectivist, traditional instructional design models (e.g., *Instructional Systems Design* by Dick & Carey, 1996; *Principals of Instructional Design* by Gagne, Wager, & Briggs, 1992), and (b) constructivist instructional design models (e.g., *Constructivist Learning Environment* by Jonnassen, 1998; *Open Learning Environment* by Hannafin, Land, & Oliver, 1999). The traditional models are associated with behaviourism and cognitive science, whilst, constructivist models are associated with cognitive science and constructivism.

1.3.1 Objectivist Approach

Objectivists argue that there is an objective reality and that the goal of learning is to understand this reality and change behaviour accordingly (Carswell, 2001). Within an objectivist schema, the instructors identify the course objectives required of learners and then systematically arrange the content to reach those objectives. They teach the learners a defined body of knowledge within teacher-prescribed boundaries (Carwile, 2007).

The traditional design model developed by Dick and Carey (1996) is widely used. Within this model Gagne's categories of learning outcomes, conditions for learning, and nine events of instruction are used as decision making tools and framework for designing and delivering of instruction.

1.3.2 Constructivist Approach

Constructivists, on the other hand, believe that the only important reality is the learners' mind, and the goal of learning is to construct in the learners' mind its own, unique conception of events (Carswell, 2001).

Within educational contexts there are various meanings of constructivism: personal constructivism as described by Piaget (1967), social constructivism discussed by Vygotsky (1978), radical constructivism advocated by von Glasersfeld (1995), educational constructivism (Mathews, 1998). Social constructivism and educational constructivism have had the greatest impact on instruction and curriculum design because they seem to be the most conducive to integration into current educational approaches (Jones & Brader-Araje, 2002).

Various definitions of constructivism are available in the literature. According to von Glasersfeld (1995) knowledge, no matter how it be defined, is in the heads of persons, and that the thinking subject has no alternative but to construct what he or she knows on the basis of his or her own experience.

According to Naylor and Keogh (1999) the central principles of constructivist approach are that learners can only make sense of new situations in terms of their existing understanding. Learning involves an active process in which learners construct meaning by linking new ideas with their existing knowledge.

Constructivism can include different types of knowledge construction than rote memorization of factual knowledge or procedures. The goal for the learner is to build, or re-invent knowledge. Ordering and re-ordering knowledge, testing it out and justifying this interpretation are underlying principles of constructivist practices. (Fosnot, 1992).

Constructivist learning encourages the learners to express their conception of an idea, to reflect on the opinions of others or on feedback provided about their ideas, and to revise their initial conception to account for new opinions and feedback (Oliver, 2000).

Collaborative and socio-cultural models

Within the constructivist model, several approaches of learning including the *collaborative and socio-cultural approaches* are identified. According to *collaborative or cooperative learning model* learning occurs as an individual interacts with other individuals. Learning results as individuals exercise, verify, solidify and improve their mental models through discussions and information sharing (Carswell, 2001).

According to Hodgson and Watland (2004) new technologies allow for construction of knowledge through what is actually deeper reflection of the learner. Through groups and other learning interactions with their online peers, learners acquire deeper understanding because of the opportunities for exposure to multiple perspectives and interpretations.

According to *socio-cultural model* learning best occurs when the learning event is meaningful, more deeply or elaborately processed, situated in context, and rooted in the learner's cultural background and personal knowledge (Carswell, 2001).

Instructional design principles

Jonassen (1999) lists a number of design principles that can be used to develop 'constructivist learning environment'. These are as follows:

- Create real world environments that employ the context in which learning is relevant.
- Focus on realistic approaches to solving real-world problems.
- The instructor is a coach and analyzer of the strategies used to solve these problems.
- Stress conceptual interrelatedness, providing multiple representations or perspectives on the content.
- Instructional goals and objectives should be negotiated and not imposed.
- Evaluation should serve as a self-analysis tool.
- Provide tools and environments that help learners interpret the multiple perspectives of the world.
- Learning should be internally controlled and mediated by the learners.

Doolittle (1999; cited in Carville, 2007) stressed the importance of an active learning environment for online students, built on the following recommendations:

- Learning should take place in authentic and real-world environments.
- Learning should involve social negotiation and mediation.
- Content and skills should be made relevant to the learner.
- Teachers serve primarily as guides and facilitators of learning, not instructors.
- Teachers should provide for and encourage multiple perspectives and representations of content.

- Content and skills should be understood within the framework of the learner’s prior knowledge.
- Students should be assessed formatively, serving to inform future learning experiences.
- Students should be encouraged to become self-regulatory, self-mediated, and self-aware.

However, Doolittle opined that one of the most difficult constructivist percepts to address in online education is providing for the learner’s pre-existing knowledge.

Partlow and Gibbs (2003) found from a Delphi study of experts in instructional technology and constructivism that online courses designed from constructivist principles should be *relevant, interactive, project-based, and collaborative, while providing learners with some choice or control over their learning.*

Instructors gave higher ratings to online instructional strategies that create an environment that supports and encourages inquiry, broaden the learner’s experience of the subject matter, and elicit active and critical reflection by learners on their growing experience base (Keeton, 2004).

Check Your Progress 2

Note: i) Space is given below for your answers.

ii) Compare your answers with those given at the end of the unit.

i) According to constructivism, what is the main goal of the learner/trainee?

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ii) What should be the main features of online courses designed from constructivist principles?

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1.3.3 Mixed Approach: Inclusion of Variety of Differing Learning Tasks

Each learning task included in online courses for learning/training has specific benefits. The mix of activities is found to be appropriate by learners. The inclusion of variety of differing learning tasks help to stimulate and maintain the interest of learners and promote engagement (Macdonald, Bullen & Kozak, 2007). Some educators (e.g., Mishra, 2002; Sfard, 1998; Tennyson, 2002) advocate instructional design models that borrow from multiple theories of learning to match the most appropriate learning activities to the learning task at hand.

In an effort to identify “effective pedagogical approaches for online workplace training” various learning activities like *quizzes, self-test exercises, tasks incorporating external online resources, tasks incorporating choice of topic/area of focus, discussions, group work, and face-to-face meetings* were used (see Macdonald et.al., 2007).

Participants’ opinions on perceived benefits of online learning activities as reported by Macdonald and others (2007) are the followings:

Quizzes are useful for generating key words or phrases that can prompt recall of main concepts, reinforce the learners and help retention and prepare learners for more complex assignments. Short online quizzes encourage the learners to carefully read the online course content and help building a base of knowledge that could be explained upon more complex assignments that require higher order thinking.

Self-test exercises promote deeper understanding of new concepts, and help relate new concepts to personal experience or real-world contexts. These can take on an interactive dimension if learners are asked to generate questions for each other to answer.

Tasks incorporating external online resources expand learners’ perspectives on concepts covered in the course, introduce the learners to the availability of a wide range of readily-accessible information resources, validate and reinforce information in course text and enhance the online research skills of the learners.

Tasks incorporating choice of topic/area of focus are motivating as a result of having a choice on what to write about, and can focus on topics of personal interest or relevant to their own work.

Discussions address issues not covered in course contents, help learners to understand concepts within a real-world context, promote deeper understanding of issues, and alter or reinforce learners’ perspectives by offering alternative opinions. Discussions can be used as a means for learners to discuss questions or problems with each other.

Group work is motivating because of the authentic nature of the activity. It provides opportunities for Community of Practice (COP) to share knowledge and perspectives with other participants/colleagues.

Face-to-face meetings motivate learners to keep up with course requirements, facilitate the coordination of group work, and allow for human contact and natural interaction with peers.

Macdonald and others (2007) stated that constructivist activities should not be employed to the exclusion of other approaches. Based on their case study of South African workplace learners, they recommended the followings:

- Workplace e-learning courses should include a mix of tasks and activities that encourage learners to approach new concepts in a variety of ways.
- Constructivist activities should be used to enable learners to link new knowledge to real-world contexts. In a situation where the learners are not familiar with the constructivist approach, the course should begin with behaviourist/didactic activities in the early stages and move in incremental steps toward constructivist methods.

- Authentic tasks and research based on external Web research should be included. Instructional designers should carefully consider the time demands on learners when planning overall workloads.
- Ample opportunities for interaction between students should be created.
- Face-to-face meetings should be included to minimize isolation and procrastination and to facilitate group work.

The participants in other online training programmes also expressed strong desire for face-to-face interaction (Dagada & Jarkovijevic, 2004; van der Westhuizen & Krige, 2003).

Outcomes of mixed approaches used by others (Chester & Francis, 2006) suggest no adverse effects on student performance. The faculty and students evaluated this approach favourably.

1.4 PEDAGOGICAL ROLE OF THE TEACHER IN ONLINE EDUCATION/TRAINING

Gold (2001) argued that teachers must have the actual experience of online learning before they can be expected to be online teachers. Without proper pedagogical training and online experience, teachers will continue to replicate their best existing practices onto the online medium. The transition from in-classroom instruction to online instruction is a complex one as it involves specialized training in the technical aspects of delivering quality educational materials (or environments) to the learners.

Gold (2001) reported a two-week faculty development pedagogical training course aimed at preparing teachers (veteran college teachers with little online teaching or studying experience) to operate effectively within an online educational environment. The course used a constructive instructional methodology within an online context. Various types of collaborative exercises such as *virtual trips*, *online evaluations*, *interactive essays*, and *group projects* were employed. The course components of a constructivist class included – the curriculum content of the course, the instructional method, and the assessment and feedback mechanism.

The class in the above mentioned training course was broken into five units. Each unit had its own learning objectives. The curriculum consisted of a text lecture, and main and suggested readings. The class began with an orientation to instructional design and the objectivist and constructivist philosophies. The second unit was concerned with the transition the teacher makes from in-class to Web class teaching. The third unit built upon the end of unit two's discussion and went into detail about conferencing and collaboration. The fourth unit showed the participants how to evaluate courses using another framework besides objectivism or constructivism. In the last unit the participants were asked to examine their learning experience and discuss the problems associated with teaching online. The presentations dealt with the motivations and learning styles of the learners and teachers, and contained a section on how teachers can deal with the special problems of online.

Instruction is the combination of subject matter with a method (and structure) to produce cognitive changes in the learners. Constructivist instructors tailor their teaching strategies to the learners and encourage them to interpret, analyze, and predict information. Learner interaction is done via facilitative questions and recorded in the discussion forum. In the above mentioned training course reported by Gold (2001) facilitative questions were used as the ‘stimulus to thought’ and the opportunity to test ideas done in the discussion forum. These facilitative questions and the role of the facilitator-teacher made up the instructional method.

Assessment is seen as a part of the learning process, where learners can openly discuss and reflect on their own work and the work of others (Gold, 2001). In Gold’s training course there were four primary individual activities throughout the course: *virtual field trips, online evaluations, interactive essays and a group project*. The participants were supposed to immediately apply what they have learned in some context. The participants’ understanding was revealed through their activity artifact posts in the discussion forum for comment and discussion. Since all the participants were required to do the same activity (with some exceptions) participants could also assist each other through Zone of Proximal Development learning moments. Self-marked quizzes were available at the end of the each unit (see Gold, 2001).

Results of the above mentioned training course as reported by Gold (2001) indicated that teachers shifted towards a more constructivist orientation, valuing increased interaction and communication. Teachers also gained knowledge about distance education. The participants felt that online courses offered more learner participation than traditional face-to-face courses. Teachers saw teaching as their job and teaching online consistent with their role as an instructor. Gold (2001) remarked that this would indicate the central issue for the future of teachers is more about training and less about the correct reward structures.

Kim and Bonk (2006) found through their survey on future of online teaching and learning in higher education, most important skills for an online instructor will be how to moderate or facilitate leaning and how to develop or plan for high quality online courses. Salmon (2000) rightly pointed out that online instructors are moderators or facilitators of student learning.

Check Your Progress 3

- Note:** i) Space is given below for your answer.
ii) Compare your answer with the one given at the end of the unit.

Identify four primary individual activities in the training course reported by Gold.

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1.5 CULTURALLY INCLUSIVE ONLINE TEACHING LEARNING

Today, higher teaching- learning institutions, in distance education and traditional courses are receiving an increasingly heterogeneous learner population. Faced with the diversity of populations and needs, many instructors have become aware of the importance of addressing the notions of multiculturalism and interculturalism in the design of online courses and selection of technological tools for developing courses and training programmes (McGee, 2002; Moore, Shattuck & Al-Harthi, 2006). However, this raises many questions in the mind of instructors and e-learning designers as noted by Rutherford & Kerr (2008). Some of the questions are: how do we integrate and address this multicultural dimension in a distance education course aimed at students who live in diverse cultural environments? How do we facilitate interaction and dialogue among individuals of widely differing cultural influences? How do the challenges of intercultural communication in an online environment affect online teaching and learning? What are the characteristics of an online course that is inclusive of all types of diversity, and what are the guiding principles for designing such courses? In their recent published article, Rutherford and Kerr (2008) made an attempt to address some of these questions by first exploring the concepts of culture and learning cultures, and discussing different online instructional design models that are culturally inclusive. They concluded with a description of a *mediated instructional training module on the management of the cultural dimension of online teaching and learning*. This module is mainly addressed to teachers and designers of online courses.

1.5.1 Cross Cultural Differences in Learning Behaviours

Research studies (Morse (2003; Biesenbach-Lucas, 2003; Gouthro, 2004;) examined cross cultural differences between two or more groups. Morse (2003) studied the impact of cultural factors on the behaviour of students in an online course. He identified elements that differentiate high-context learning culture groups (Pakistan, People's Republic of China, Singapore, Sri Lanka, and Thailand) from low-context learning culture groups (US, UK, Australia, and New Zealand).

He found the low context group to be 'outwardly oriented' in their computer-mediated communications (these students valued the time afforded by CMC to reflect on other people's opinions. The high context group to be more 'inwardly oriented' (these students valued the time afforded computer-mediated communication to think more about their own contributions. This study also revealed that students from high context cultures viewed the lack of face-to-face contact with faculty and peers as a challenge to their ability to learn and form social relationships, whereas, low context participants did not believe that the lack of face-to-face contact impacted their learning abilities positively or negatively (Uzuner, 2009).

In an online learning context, students from a high-context culture will expect a certain degree of formality and precise instructions, for example, to search the site for additional resources that the instructor would then incorporate into the course content.

On the other hand, students from low-context culture would probably adapt more easily to an informal style of online interaction and have no

problem exploring several information sources and documents on the Web to supplement course content on their own (Rutherford and Kerr, 2008).

Impact of multiple levels of cultures (such as national culture, ethnic culture, and cyber culture) on students' asynchronous learning networks have been noted (Fang, 2007). Influenced by their national culture, which values achievement and success, the students cared less for fun and exciting activities and valued tasks that led to achievement in learning. Influenced by their ethnic culture, which stresses learning from an authority figure, the students preferred teacher feedback to peer feedback, and influenced by their cyber culture, the students appreciated the convenience, flexibility, and social benefits of online programmes.

Edmundson (2009) claimed that e-learning courses are cultural artifacts, embedded with the cultural values, preferences, characteristics, and nuances of the culture that designed them, and inherently creating challenges for learners from other cultures.

These differences range from the obvious, such as language, to more hidden differences, such as learning styles, values, and religious influences.

Emphasizing the importance of cultural context in learning and thinking, Selinger's (2004) study highlighted the importance of training local instructors so they can make course that is developed in another country culturally and pedagogically relevant to students in their local contexts (Uzuner, 2009).

Tylee (2002) explored the impact of cultural dimensions on the perception of online learning environment accessibility. Based on the work of Hofstede (1980) and Marcus and Gold (2000), Tylee proposed a list of questions for the online course designer:

- What degree of personal interaction should be developed?
- What motivational aspects should be included?
- What balance should there be between group and individual opinions?
- How will high uncertainty avoidance cultural groups' need for certainty be addressed?
- Will learning emphasize individual or group work?
- How should social and contextual dimensions be addressed?
- Does the nature of the work promote a critical, unconventional or conservative perspective?
- Is the teaching style didactic rather than interactive and participatory?
- How should the issue of the different learning styles of learners from culturally diverse backgrounds be addressed?
- Is it preferable to develop separate interfaces and courses for different cultural groups?
- Should different learning approaches be offered to cater to different learning styles?
- Should there be a choice of evaluation activities that addresses cultural differences?

1.5.2 Multidimensional and Multi Cultures Models

The multidimensional model of Collis, Vingerhoets and Moonen

Collis, Vingerhoets and Moonen (1997) identified seven dimensions of a course. These dimensions involve the followings:

- Social organization of the course
- Selection of course content, progression, and learning activities
- Selection of course materials
- Selection of a mode of interaction in the course
- Selection of the technical platform supporting the course
- Language(s) used in the course, and
- The conditions under which the course is given (entirely distance or a hybrid approach).

The notion of flexibility which is must be applied and the students can make a choice.

Seufert's Cubic Model

Seufert (2002) proposed a three-dimensional model. Along with flexibility and variety, simplicity in the choice of technological tools and their utilization, and awareness of the multicultural context and cultural differences are important.

McLoughlin's Inclusive Pedagogical Model

McLoughlin (2007) proposed an inclusive pedagogical framework that emphasizes the internationalization of learning resources based on a constructive approach. It provides a degree of flexibility and plurality to the learning situation.

Henderson's Multiple Cultures Model

Henderson (2007) proposes the multiple cultures model, based on the consistent interaction of three specific cultural influences that are fully integrated into the course design: academic culture, the dominant culture, and the minority culture or cultures affected by the teaching and learning situation in question.

E-pedagogies interculturelles: A mediated instructional training module

According to Rutherford and Kerr (2008) designing inclusive learning online environments for an ever changing and fluid world encompasses many complex issues. With reference to the questions (page 19 & 20) emerged a project to develop an online professional development module.

One important aim of this project was to develop a self-paced e-learning module offering online course designers and instructors practical guidance, experiential learning activities and resources.

The module is presented in nine stages or: Explorations". After the first introductory stage come seven stages in which different notions are explored with reflective activities that may often include an opportunity to analyze one's own teaching/learning context in light of theoretical notions and research reports that are presented in the course of the module.

Each stage of the module begins with reflective activities based on video, audio or text presentations by Canadian, Swiss and Cameroonian instructors and students on their cultural representations of online education.

The last section of the module refers to the notions activities from the preceding exploration stages and guides users in designing a teaching scenario for an online course of their own, taking into account the multicultural dimension of the target audience. Users have access to a “personal electronic notebook” for recording their thoughts and activity results during the module, or for sharing with other users in the “virtual community” space created for this purpose.

At the end, an “online resources” space was created to archive the numerous bibliographic references collected in the course of developing the project.

Rutherford and Kerr (2008) reported that this module, the activities and theoretical content were presented and tested in a number of presentations and instructional training workshops in Cameroon, Kenya, Saudi Arabia, Austria, France, and Canada.

1.5.3 Impact of Studies on Practice

Carwille (2007) has discussed how a teacher can put these principles of constructivism into practice. She has highlighted the valuable uses of discussion boards. A teacher may develop discussion topics that are open-ended enough to allow the individual learner to incorporate individual experiences, interpretations, reactions, and opinions into discussion responses. A learner community can be built in the discussion area, the students should respond to two or three classmates each week, in addition to posting their own ideas.

Another important use of the discussion board is to provide forums that require students to research an area of interest and report back to the class in the forum. Carwille (2007) has cited an example from business courses. Here, we can provide an example related to distance education course. Say, for example, you are teaching a course on learner support services to the distance students. While discussing ‘how the distance students should develop study skills for effective learning’, you may ask your students to collect information from various web sites according to their choice. They may study and evaluate the materials and prepare a critical note and post their findings to the class. The students will focus on something of their interest and construct a new knowledge.

Constructivist learning also incorporates collaborative elements which can be easily accomplished by the discussion board. As with any element of online instruction, much advanced planning should be done to diminish negative effects of group work on students who favour online learning. The instructor should build in as many collaborative opportunities for group work, including but not limited to face-to-face meetings, private discussion forums for groups, and encouraging the use of virtual chat components such as instant messaging and the component in content management systems like Blackboard (Carwille, 2007).

The rules for online participation should be clear. The students who rarely spoke in traditional classrooms, felt lost when they are expected to speak online. They wonder if there is any rule for them to follow (Wang, 2007). To alleviate student anxieties, online instructors should make their course

structure transparent by setting clear expectations for participation, assignments, learning activities, team work, grading, submission dates, and assessment (Uzuner, 2009).

Where active participation in discussions is highly valued, instructors should make specific efforts to promote critique and divergence and encourage students to create a safe space where opinions, experiences, beliefs, and knowledge can be shared. However, challenging and criticizing other' ideas may not be considered culturally appropriate in some cultural groups (Biesenbach-Lucas, 2003; Thompson & Ku, 2005).

Thompson and Ku (2005, p.45) made some recommendations for the online instructors to improve the likelihood of success of students from context dependent cultures. These are:

- Get to know the students. Encourage them to send their pictures and post their background information and interests online.
- Encourage students to communicate with each other both online and offline (exchange phone numbers, meet in person, use e-mail, fax, the discussion board, and the chat room).
- Encourage face-to-face interactions or meetings with classmates and instructors when possible.

Relationship building is foremost for students from collectivist cultures (Anakwe & Christensen, 1999). The online instructors should allow sufficient time to develop relationships prior to engaging students in collaborative activities (Liang & McQueen, 2000), and monitor the nature and scope of team work (Wang, 2007).

Online instructors should not simply implement 'best practices', which are born out of dominant educational cultures, in their courses without knowing the needs of their learners. Instructors' roles and decisions are important in making online learning successful for the learners, therefore, to ensure that these decisions improve culturally diverse group's online learning experiences, online instructors need to effectively conduct needs assessments and engage in an ongoing process of re-constructing their teaching approaches based on the results of these assessments (Uzuner, 2009).

Activity 1

As a teacher/trainer how can you put the principles of constructivism into practice?

We have not provided any answer of this question. This is an activity for you. You may write your answer based on the discussion in sub-section 1.5.3.

1.6 LET US SUM UP

In this unit, we have touched upon various tools for e-learning environment. We have discussed few instructional design models for online education/training. We have highlighted the traditional instructional design models, and then discussed in detail the constructivist models.

Objectivists argue that there is an objective reality and that the goal of learning is to understand this reality and change behaviour accordingly.

Constructivists, on the other hand, believe that the only important reality is the learners' mind, and the goal of learning is to construct in the learners' mind its own, unique conception of events.

We have discussed pedagogical role of teacher in online education.

Teachers must have the actual experience of online learning before they can be expected to be online teachers. Without proper pedagogical training and online experience, teachers will continue to replicate their best existing practices onto the online medium.

We have also addressed the issues of cultural dimensions of online teaching learning/training and highlighted some multidimensional and multi cultures models.

Impact of multiple levels of cultures (such as national culture, ethnic culture, and cyber culture) on students' asynchronous learning networks has been noted by the researchers.

At the end we have discussed the impact of research studies on practice.

Online instructors need to effectively conduct needs assessments and engage in an ongoing process of re-constructing their teaching approaches based on the results of these assessments.

1.7 CHECK YOUR PROGRESS: POSSIBLE ANSWERS

Check Your Progress 1

- i) Once you are logged in, you can perform various functions such as uploading and downloading software and data, reading news, exchanging messages with other users like trainers, teachers, friends, either through email or in public message boards.
- ii) A learning management system is a software application for the administration, tracking, and reporting of training programme, classroom and online events, e-learning programmes, and training contents.

Check Your Progress 2

- i) The main goal of the learner/trainee is to build or re-invent knowledge.
- ii) The courses should be relevant, interactive, project-based and collaborative. These should provide learners/trainees with choice or control over their learning/training.

Check Your Progress 3

Virtual field trips, online evaluation, interactive essays, and group projects.

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