

Block

4

ONLINE TRAINING

UNIT 1**Approaches to Online Training** **7**

UNIT 2**Continuing Professional Development: Some Issues** **27**

UNIT 3**Assessment and Evaluation of Online Training** **42**

MDE-419: Staff Training and Development in Distance Education

(New Course in place of ES-319: Staff Development in Distance Education)

EXPERT COMMITTEE (ORIGINAL)

Late Prof. G. Ram Reddy, Chairman Ex-Vice-Chancellor IGNOU	Prof. B.S. Sharma Ex-Pro-Vice-Chancellor IGNOU	Prof. B.N. Koul, Convenor Ex-Pro-Vice-Chancellor STRIDE, IGNOU
Prof. S.K. Verma Ex-Vice-Chancellor CIEFL, Hyderabad	Prof. P.M. Deshpande Ex-Director DEC	Mr. David Seligman Ex-Chief Technical Adviser CIET, New Delhi
Prof. O.S. Dewal Ex-Director, CIET New Delhi	Prof. Bakshish Singh Ex-Consultant (Distance Education) UGC, New Delhi	Mr. Ruddar Dutt Ex-Principal, SCCE University of Delhi

EXPERT COMMITTEE (REVISION)

Prof. A. Sukumaran Nair (Chairman) Former Vice Chancellor Mahatma Gandhi University Kottayam	STRIDE Faculty Prof. P.R. Ramanujam Prof. C.R.K. Murthy Prof. Basanti Pradhan Prof. P.K. Biswas Prof. Madhu Parhar Dr. R. Satyanarayana Dr. Sanjaya Mishra (Now with CEMCA) Dr. Ashok K. Gaba (Now with SOVET, IGNOU) Ms. Mythili G. Mr. Tata Ramakrishna Dr. Rose Nembiakkim (Now with SOSW, IGNOU) Dr. Satya Sunder Sethy (Now with IIT, Chennai)	Prof. O.S. Dewal Former Director National Open School New Delhi Prof. Chandra Bhusan Formerly with CIET NCERT, New Delhi Prof. Santosh Panda, Director (Convener) STRIDE, IGNOU
Prof. S.V.S. Chaudhary School of Education IGNOU, New Delhi		
Prof. K. Murugan Director, School of Humanities TNOU, Chennai		
Prof. K. Sudha Rao NUEPA New Delhi		

COURSE PREPARATION (ORIGINAL)

Course Contribution	Unit Design and Editing	Course Coordination
Prof. B.N. Koul STRIDE, IGNOU	Prof. P.R. Ramanujam STRIDE, IGNOU	Prof. K. Murugan STRIDE, IGNOU
Prof. K. Murugan STRIDE, IGNOU	Prof. Santosh Panda AIU, New Delhi	Chief Editor Prof. B.N. Koul, IGNOU

COURSE REVISION (2001)

Revised by	Language Editing	Course Coordination
Prof. P.R. Ramanujam STRIDE, IGNOU	Prof. P.R. Ramanujam	Prof. P.R. Ramanujam
	Unit Design and Editing	Prof. P.K. Biswas STRIDE, IGNOU
	Prof. P.R. Ramanujam and Prof. P.K. Biswas	

COURSE REVISION (2012)

Course Contribution, Unit Design and Editing	Block Contribution	Language Editing
Prof. P.K. Biswas STRIDE, IGNOU	Prof. P.K. Biswas Ms. G. Mythili STRIDE, IGNOU	Dr. A.S. Guha IIVET, IGNOU, Shillong

PRINT PRODUCTION

Ms. Promila Soni
Section Officer (Publication), STRIDE, IGNOU, New Delhi

May, 2013

© Indira Gandhi National Open University, 2013

ISBN-978-81-266-6426-9

All rights reserved. No part of this work may be reproduced in any form, by mimeograph or any other means, without permission in writing from the Indira Gandhi National Open University.

Further information about the Indira Gandhi National Open University Courses may be obtained from the University office at Maidan Garhi, New Delhi-110068.

Published by the Director, Staff Training and Research Institute of Distance Education (STRIDE), IGNOU, New Delhi on behalf of the Indira Gandhi National Open University, New Delhi.

Cover design by Ms. Jyoti, STRIDE, IGNOU, New Delhi

Laser Typeset at : M/s. Tessa Media & Computers, C-206, A.F.E.-II, Jamia Nagar, New Delhi.

Printed at : Sita Fine Arts Pvt. Ltd. A-22, Naraina Industrial Area, Phase-II, New Delhi-110028.

MDE-419: Staff Training and Development in Distance Education

Course Outline

Block 1 : Growth and Development

- Unit 1 : Amorphous Beginning
- Unit 2 : Curricular Issues
- Unit 3 : State of Maturity
- Unit 4 : Towards Professionalism: An Exposition

Block 2 : Staff Development Perspectives

- Unit 1 : Training to Develop Self-Learning Print Materials
- Unit 2 : Training in Student Support Services
- Unit 3 : Training of Non-Teaching Support Staff
- Unit 4 : Evaluation of Training

Block 3 : Implementational Aspects

- Unit 1 : Training Needs Assessment
- Unit 2 : Methodologies for Staff Development
- Unit 3 : Trainer Training
- Unit 4 : Language Issues

Block 4 : Online Training

- Unit 1 : Approaches to Online Training
- Unit 2 : Continuing Professional Development: Some Issues
- Unit 3 : Assessment and Evaluation of Online Training

Block 5 : Staff Development Experiences

- Unit 1 : Reflection and Continuing Professional Development: Implications for Online Distance Learning
- Unit 2 : Reflective Online Resources for Online Professional Development
- Unit 3 : Training and Staff Development
- Unit 4 : Training of Trainers' Workshop in Distance Education
- Unit 5 : Face-to-Face Training Workshop for the Academic Counsellors

INTRODUCTION TO THE BLOCK

This Block consists of three units. In Unit 1 we have discussed various approaches to online training. In this context, we have presented three approaches: Objectivist approach, Constructivist approach, and Mixed approach. We have discussed the role of teacher in online education and addressed various issues of cultural dimensions of online teaching learning/training.

In unit 2, we have discussed various issues related to continuous professional development with special reference to online continuing professional development. We have also highlighted a framework for online continuing professional development.

In Unit 3, we have mainly focused on components of evaluation of online programme and some approaches for evaluating online learning/training.

Study Guide

A schematic representation of the design of the units is given below to facilitate your access to the content presented here.

Unit X*

X.0 Introduction

X.1 Objective

X.2 Section 1 (Main Theme)

X.2.1 Sub-section 1 of Section 1

X.2.2 Sub-section 2 of Section 1

..... **Check Your Progress**

X.3 Section 2 (Main Theme)

X.3.1 Sub-Section 1 of Section 2

X.3.2 Sub-Section 2 of Section 2

..... **Check Your Progress**

..... **Check Your Progress The Key**

Wherever check your progress exercises are provided they are in boxes to distinguish from the rest of the text

X.n Let Us Sum Up

***'X' stands for the serial number of the unit concerned**

As the scheme suggests, we have divided the units into sections for easy reading and better comprehension. Each section is indicated distinctly by bold capitals and each sub-section by relatively smaller, but bold typeface. The significant divisions within sub-sections are in still smaller but bold typeface so as to make it easier for you to see their place within sub-sections.

For purpose of uniformity we have employed the same scheme of 'partitioning' in every unit throughout the course.

We begin each unit with an Introduction followed by the section 'Objectives'. It articulates briefly

- What we have presented in the unit, and
- What we expect from you once you have finished working on the unit.

In the last section of each unit, under the heading, 'Let Us Sum Up', we summarise the whole unit for purposes of recapitulation and ready reference.

Besides, we have given self-check exercises under the caption 'Check Your Progress' which invariably end with possible answers (the key) to the questions set in these exercises.

What, perhaps, you ought to do is to go through the units and note down important points as you read in the space provided in the margin. (Broad margins in the booklet are there for you to write your notes on. Make your notes as you work through the materials. This will help you prepare for the examination as also in assimilating the content. Besides, you will be able to save time. Do use these margins). This will help you keep track of and assimilate what you have been reading in the unit, answer the self-check exercises and the assignment questions and, easily identify the item(s) to be clarified.

We hope that we have given enough space for you to work on the self-check exercises. The purpose of giving self-check exercises will be served satisfactorily if you compare your answers with the possible ones given at the end of each unit after having written your answer in the blank space. You may be tempted to have a furtive glance at the possible answer(s), as soon as you come across an exercise. But we do hope that you will overcome the temptation and turn to the possible answers (which are not necessarily the best answers) only after you have written yours.

These exercises are not meant to be submitted to us for correction or evaluation. Instead, the exercises are to function as a study tool to help you keep on the right track as you read the units. On an average, each block will have at least one or a part of one assignment. At times an assignment may expect you to work through more than one unit to prepare your responses. You have to work on one assignment per course. Assignments are sent separately and are changed every year.

We suggest the following norms be strictly practiced while you are working through the assignments.

- Write your enrolment number legibly.
- Before you put anything down in words, assimilate what you have read, integrate it with what you have gathered from your experience to build your answer, and preferably prepare a concept map before starting to write it.
- Make the best use of the block and additional reading materials by diligently working through the assignments.

Mail us

At the end of this block, we have provided a questionnaire to be filled by you after you complete reading this block. Your feedback will be very useful for future revision and maintenance of the programme. Please take note of the time you devote in studying this block. Maybe you can complete this block after 4-5 sittings. But for every sitting, kindly note the time separately so that you can categorically say how much time you took to read this block. You can send the feedback questionnaire by post or you can e-mail the same to pkbiswas@ignou.ac.in. In the email, please mark in the subject area – FOR COURSE COORDINATOR-MDE-419. You may also contact us for any difficulties related to the programme in general and MDE-419 in particular.



UNIT 1 APPROACHES TO ONLINE TRAINING

Structure

- 1.0 Introduction
- 1.1 Objectives
- 1.2 Tools for E-learning Environment
- 1.3 Online Instructional Design Models
 - 1.3.1 Objectivist Approach
 - 1.3.2 Constructivist Approach
 - 1.3.3 Mixed Approach: Inclusion of Variety of Differing Learning Tasks
- 1.4 Pedagogical Role of the Teacher in Online Education/Training
- 1.5 Culturally Inclusive Online Teaching Learning
 - 1.5.1 Cross Cultural Differences in Learning Behaviours
 - 1.5.2 Multidimensional and Multiple Cultures Models
 - 1.5.3 Impact of Studies on Practice
- 1.6 Let Us Sum Up
- 1.7 Check Your Progress: Possible Answers
- 1.8 References

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.

PDAs are also called palmtops, hand-held computers and pocket computers. Many PDAs 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?

.....

.....

.....

.....

.....

ii) What is a learning management system?

.....

.....

.....

.....

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 Carwille, 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?

.....

.....

.....

.....

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

.....

.....

.....

.....

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.

.....

.....

.....

.....

.....

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 (Uzun, 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's 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.

1.8 REFERENCES

- Anakwe, U.P. & Christensen, E.W. (1999). Distance learning and cultural diversity: Potential users' perspective. *The International Journal of Organizational Analysis*, 7(3), 224-243.
- Baggaley, J. (2003). Blogging as a course management tool. *The Technology Source* July/August 2003. (Online). Cited in Kim, K. & Bonk, C. J. (2006). The future of online teaching and learning in higher education: The survey says....*Educause Quarterly*, 29 (4), 1-13.

- Biesenbach-Lucas, S. (2003). Asynchronous discussion groups in teacher training classes: Perceptions of native and non-native students. *Journal of Asynchronous Learning Networks*, 7(3), 24-46.
- Carwile, J. (2007). A constructive approach to online teaching and learning, *Inquiry*, 12(1), 68-73.
- Carswell, A.D. (2001). Facilitating student learning in an asynchronous learning network. *Dissertation Abstract International*, 62(3), 1110.
- Collis, B., Vingerhoets, J., & Moonen, J. (1997). Flexibility as a key construct in European training: experiences from the TeleScopia project. *British Journal of Educational Technology*, 28(3), 199-217.
- Dagada, R. & Jakovijevic, M. (2004). *Where have all the trainers gone? E-learning strategies and tools in the corporate training environment*. Proceedings of the 2004 annual research conference of the South African Institute of Computer Scientists and Information Technologists on IT Research in Developing Countries. Stellenbosch, South Africa.
- Dick, W. & Carey, L. (1996). *The systematic design of instruction*, NY:Harper Collins Publication.
- Doolittle, P. (1999). Constructivist pedagogy. (Online).Cited in Carwile, J. (2007). A constructive approach to online teaching and learning, *Inquiry*, 12(1), 68-73.
- Edmundson, A. (2009). *Culturally accessible e-learning: An overdue global business imperative*. Retrieved July 27, 2010, from http://www.astd.org/LC/2009/0509_edmundson.htm
- Ellis, R.K. (2009). Field Guide to Learning Management Systems, ASTD Learning Circuits, http://www.astd.org/NR/rodonlyres/12ECDB99-3B91-403E-9B15-7E597444645D/23395/LMS_fieldguide_2009I.pdf
- Fang, L. (2007). Perceiving the useful, Enjoyable, and effective: A case study of the e-learning experience of tertiary students in Singapore. *Educational Media International*, 44(3), 237-253.
- Fosnot, C.T. (1992). Center for constructivist teaching/teacher preparation project. Paper presented at the Association of Teacher Educators' Annual Conference, Orlando, FL. 1992.
- Gagne, R.M., Wager, W.W. & Briggs, L.J. (1992). *Principles of instructional design* (4th ed.), New York: Holt, Rinehart and Winston.
- Gery, G. (1991). *Electronic Performance Support Systems*. ISBN 978-0961796815
- Gold, S. (2001). A constructive approach to online training for online teachers. *Journal of Asynchronous Learning networks*, 5(1). Cited in
- Carwile, J. (2007). A constructive approach to online teaching and learning, *Inquiry*, 12(1), 68-73.
- Gouthro, P. A. (2004). Assessing power issues in Canadian and Jamaican women's experiences in learning via distance in higher education. *Teaching in Higher Education*, 9(4), 449-461.
- Hannafin, M., Land, S., & Oliver, K. (1999). Open learning environments: Foundations, methods, and models. In C. M. Reigeluth (Ed.) *Instructional design theories and models: A new paradigm of instructional theory* (Vol. II), New Jersey: Lawrence Erlbaum Associates, 215-239
- Henderson, L. (2007). Theorizing a multiple cultures instructional design model for e-learning and e-teaching. In A. Edmundson (Ed.) *Globalized e-learning cultural challenges* (pp.130-153). London: Information Science Publishing.
- Hodgson, V. & Watland, P. (2004). The social constructionist case for researching networked management learning: A postscript and reply to Arbaugh and Benbunan-Fich, *Management Learning*, 35(2).
- Hofstede, G. (1980). *Culture's consequences: International differences in work-related values*. Beverly Hills, CA: Sage.

- Jonnassen, D.H. (1999). Designing constructivist learning environments. In C.M. Reigeluth (Ed.) *Instructional design theories and models: A new paradigm of instructional theory* (Vol. II), New Jersey: Lawrence Erlbaum Associates, 215-239.
- Jones, M.G. & Brader-Araje, L. (2002). The impact of constructivism on education: language, discourse, and meaning, *American Communication Journal*, 5(3).
- Retrieved on July 21, 2010 from <http://www.acjournal.org/holdings/vol5/iss3/special/jones.htm>
- Keeton, M.T. (2004). Best online instructional practices: Report of phase 1 of an ongoing study. *Journal of Asynchronous Learning networks*, Vol. 8(2), 75-100.
- Kim, K. & Bonk, C. J. (2006). The future of online teaching and learning in higher education: The survey says....*Educause Quarterly*, 29 (4), 1 – 13.
- Lamb, B. (2004). Wide open spaces: wikis, ready or not. *Educause Review*, Vol. 39(5), 36-48.
- Liang, A. & McQueen, R. J. (2000). Computer assisted adult interactive learning in a multicultural environment. *Adult Learning*, 11(1), 26-29.
- Macdonald, I.S., Bullen, M. & Kozak, R. A. (2007). Identifying effective pedagogical approaches for online workplace training: A case...*The International Review of Research in Open and Distance Learning*, 8(3). Retrieved on July 20, 2010 from <http://www.irrodl.org/index.php/irrodl/article/view/Article/400/936>.
- Mathews, M. (1998). *Constructivism in science education*. Dordrecht, The Netherlands: Kluwer.
- McGee, P. (2002). Web-based learning design: planning for delivery, *USDLA Journal*, 16(3).
- McLoughlin, C. (2007). Adapting e-learning across cultural boundaries: A framework for quality learning, pedagogy, and interaction. In A. Edmundson (Ed.), *Globalized e-learning cultural challenges* (pp.223-238). London: Information Science Publishing.
- Michell, S. (2008). Easy Wiki Hosting, Scott Hanselman's blog, and Snagging Screens, *MSDN Magazine*, <http://msdn.microsoft.com/en-us/magazine/cc700339.aspx>
- Mishra, S. (2002). A design framework for online learning environments. *British Journal of Educational Technology*, 33(4), 493-496.
- Moallem, M. (2001). Applying constructivist and objectivist learning theories in the design of a web-based course: Implications for practice, *Educational Technology and Society*, 4(3), 113-125.
- Moore, M., Shattuck, K., & Al-Harathi, A. (2006). Cultures meeting cultures in online distance education. *Journal of E-learning and Knowledge Society*, 2(1).
- Cited in Kim, K. & Bonk, C. J. (2006). The future of online teaching and learning in higher education: The survey says....*Educause Quarterly*, 29 (4), 1-13.
- Morse, K. (2003). Does one size fit all? Exploring asynchronous learning in a multicultural environment. *Journal of Asynchronous Learning Network*, 7(1), 37-55.
- Naylor, S. & Keogh, B. (1999). Constructivism in classroom: Theory into practice. *Journal of Science Teacher Education*, 10, 93-106.
- Oliver, K.M. (2000). Methods for developing constructivist learning on the web. *Educational Technology*, 40(6): 5-18.
- Partlow, K.M. & Gibbs, W. J. (2003). Indicators of constructivist principles in internet-based courses. *Journal of Computing in Higher Education*, 14(2), 68-97.
- Piaget, J. (1967). *Biologie et connaissance (Biology and knowledge)*, Paris, Gallimard.
- Rutherford, A.G. & Kerr, B. (2008). An inclusive approach to online learning environments: Models and resources. *Turkish online Journal of Distance Education*, 9(2), 64-85.

- Salmon, G. (2002). *E-Tivities: The key to active online learning*, Sterling, Va.: Stylus Publishing.
- Selinger, M. (2004). Cultural and pedagogical implications of a global e-learning programme. *Cambridge Journal of Education*, 34(2), 223-239.
- Seufert, S. (2002). Trends and future development: Cultural perspectives of online education. In H. H. Adelsberger, B. Collis & J. M. Pawlowski (Eds.), *International Handbook on Information Technologies for Education & training*. Berlin, Heidelberg:Springer.
- Sfard, A. (1998). On two metaphors for learning and the danger of choosing just one. *Educational Researcher*, 27(2), 4-13.
- Sloan, S. (2005). Podcasting in education. Paper presented at the Educause Western Regional Conference, San Francisco, Calif.
- Tennyson, R.D. (2002). Linking learning theories to instructional design. *Educational Technology*, 42(6), 7-12.
- Thompson, L. & Ku, H. (2005). Chinese graduate students' experiences and attitudes toward online learning. *Educational Media International*, 42(1), 33-47.
- Tyler, J. (2002). Cultural issues and the online environment. Australian Society for Educational Technology, International Education and Technology conference. (Online). Cited in Rutherford, A. G. & Kerr, B. (2008). An inclusive approach to online learning environments: Models and resources. *Turkish online Journal of Distance Education*, 9(2), 64-85
- Uzuner, S. (2009). Questions of culture in distance learning: A research review. *International Review of Research in Open and Distance Learning*, 10(3), 1-19
- Van der Westhuizen, D. & Krige, H. (2003). Ending the divide between online learning and classroom instruction using a blended learning approach. In P. Kommers & G. Richards (Eds.), *Proceedings of World Conference on Educational Multimedia, Hypermedia and Telecommunications 2003* (p. 2527-2528). Chesapeake, VA: AACE. Retrieved from <http://www.editlib.org/p/11167>
- von Glasersfeld, E. (1995). *Radical constructivism: A way of knowing and learning*. Washington, DC: Falmer.
- Vygotsky, L.S. (1978). Tool and symbol in child development. In M. Cole, V. John-Steiner, S. Scriber, & E. Souberman (Eds.), *Mind in Society: The development of higher psychological processes*. Cambridge, Mass: Harvard University Press.
- Wang, M. (2007). Designing online courses that effectively engage learners from diverse cultural backgrounds. *British Journal of Educational Technology*, 38(2), 294-311.

UNIT 2 CONTINUING PROFESSIONAL DEVELOPMENT: SOME ISSUES

Structure

- 2.0 Introduction
- 2.1 Objectives
- 2.2 Professionalism in Education
- 2.3 Some Important Aspects of Professional Development
- 2.4 Self Management in Professional Development
- 2.5 Continuing Professional Development (CPD)
 - 2.5.1 Meaning of CPD
 - 2.5.2 Types of CPD Activities
- 2.6 Continuing Professional Development for the Teachers: Some Issues
 - 2.6.1 Realizing Life-long Learning and New Roles of the Teachers
 - 2.6.2 Effective Use of Technologies
 - 2.6.3 Evaluating Professional Development Programme
 - 2.6.4 Open Distance Education and Continuing Professional Development
- 2.7 Online Continuing Professional Development (CPD): A Frame Work
- 2.8 Let Us Sum Up
- 2.9 References

2.0 INTRODUCTION

In the previous unit (unit 1) you have learned various issues related to online learning/training in general. In this unit we shall take up various issues related to professional development with special reference to online continuing professional development. We shall start with definitions of professionalism, then discuss some important aspects of professional development, suggest how you can manage your own professional development, highlight some issues related to continuing professional development and present a framework for online continuing professional development.

2.1 OBJECTIVES

After reading this unit, you should be able to:

- define professionalism;
- develop a plan for professional development;
- discuss various types of continuing professional development activities;
- explain important issues related to continuing professional development; and
- prepare a framework for online continuous professional development.

2.2 PROFESSIONALISM IN EDUCATION

How do you define professionalism? Think for a minute and define it in your own words. Then read the following definitions:

Professionalism is a term used to describe enhancement of the quality of service (Hoyle, 2001).

Professionalism consists of the attitudes and behaviour one possesses towards one's profession. It is an attitudinal and behavioural orientation (Boyt, Lusch, & Naylor, 2001).

Professionalism means the behaviour, skills, qualities, special conventions, forms of politeness etc. associated with a certain profession or shown by a professional (Sahu, 2009).

Does your definition match with any one?

Professional development is a continuous process that adds value throughout a teacher's career. Professional development is most effective when the teacher conducts himself/herself through reflective practice and judges the value of training and development activity in terms of its impact on teaching and supporting learning. The teacher must make professional development plans which must clearly articulate his/her needs, set measurable and achievable objectives that reflects teaching context, fulfilling the needs of the employer (Sahu, 2009).

You may agree that professionalism can not be achieved all on a sudden. It grows into a teacher and others slowly. It is continuous process. Professionalism is not one-time affair in one's career. It is widely accepted that a teacher's development spans an entire career (McIntyre & Byrd, 1998).

While clarifying the concepts of professional development Guskey (1999) stated that professional development includes those processes and activities designed to enhance the professional knowledge, skills, and attitudes of educators so that they might, in turn, improve the learning of students.

Good professional development encourages the use of a variety of features related to knowledge, skills and practice and should focus on deepening one's content knowledge and pedagogical knowledge i.e. how individual learns particular content (Vrasidas & Glass, 2004). Professional development programmes in education institutions should promote active learning, and allow the teachers to develop reflective skills.

2.3 SOME IMPORTANT ASPECTS OF PROFESSIONAL DEVELOPMENT

Let us discuss three different aspects of professional development: (i) developing a plan for professional development, (ii) identifying resources and (iii) receiving feedback (Susan, 1990).

Developing a plan for professional development

It is important to develop a plan for professional development as it will encourage us to address our professional self-improvement activities in a positive manner. The plan will provide a framework for the discipline and commitment needed to achieve planned changes inherent in any professional development programme (Jones & Lowe, 1985, cited in Susan, 1990).

Here we may highlight the popular professional development model developed by Jones and Lowe (1982, 1985).

The professional development model has four phases: Initiating phase (Reflective), Planning phase (Reflective), Managing phase (Active) and Evaluative phase (Reflective after the fulfillment of plan). Each phase is accomplished by addressing a series of steps as detailed by Jones and Lowe (1985, p.82). These are:

Initiating phase

What do I hope to accomplish?
What are my learning objectives?
What is my potential pay off?

Planning phase

What resources are available to me?
What will be my learning activities?
How will I judge the success of this point?

Managing phase

Complete each activity in the planning phase.
Organize and interpret data.
Record progress and/or report findings.

Evaluative phase

To what extent did I achieve my objectives?
To what extent did I select and pursue appropriate learning activities?
What are my learning needs now?

Identifying resources

If you want to implement a professional development plan effectively, you will need to identify resources. These resources may include printed study materials, audio/video materials, web-based materials, books, journals, news letters and also human resources as available through orientation programmes, workshops, face-to-face contact programmes etc.

Receiving feedback

Feedback is another important aspect of professional development. You should know your progress toward achieving your aim and objectives. You may do it through self-assessment and taking help from others in assessing your progress.

Activity 1

Judge your own situation on the basis of the first two phases of Jones and Lowe model for professional development.

2.4 SELF MANAGEMENT IN PROFESSIONAL DEVELOPMENT

You can manage your professional development activities. Probably you are doing it consciously. Here, we shall give some suggestions. You need to prepare yourself for professional development activities. You should make plan in advance. You should identify the main objectives of your professional development i.e. what you want to learn, or what skill you want to develop. Objectives should be achievable, measurable, specific, action oriented and time bound. Then decide how to proceed. Identify the methods or strategies

you should follow. As you know resources are very important aspects, decide what kind of resources you need to accomplish the activities.

You should think about the possible barriers you may face and how to remove those barriers. You should study your environment and point out the barriers and the solution to overcome the same.

You should be aware of your natural learning style and use learning methods which are comfortable for you.

You can not complete the professional development activities without taking help from others. You should work in a team. As you know feedback is very important, you should select 2-3 individuals (colleagues/supervisors/mentors) who can provide feedback on the nature of development you want to make.

You should make a habit of visiting online materials and documents. A large number of materials are available online. These will enhance your understanding in relevant areas you want to develop. For example, if you want to develop your knowledge and skills in open distance learning, you may browse the websites that provide information on concept of open distance education, its components, support services, skill needed for distance teaching, tutoring, counseling, online evaluation, use of technology, and so on. You may attend online seminar and conferences and learn new techniques and also receive feedback.

You may become member of professional associations who organize workshops and conferences (face-to-face and online) in regular intervals.

You should keep records of all professional development activities.

2.5 CONTINUING PROFESSIONAL DEVELOPMENT (CPD)

2.5.1 Meaning of CPD

Continuing professional development (CPD) is a method of ensuring that you achieve the right abilities to do your job and maintain or enhance your expertise. It embraces everything that you do to improve, your job performance and 'lifelong employability' (Morrison, 2008).

According to Guskey (1999), continuing professional development, as a process, should be intentional, ongoing and systematic (cited in Panda, 2004). Professional development activities are based on purposes which are linked to broader vision of the profession. Professional development involves ongoing processes and activities based on horizontal and vertical integration within a dynamic professional field. Professional development activities need to be integrated and related to the system where professional practice takes place.

Morrison (1997) rightly has pointed out that attending a course or getting a certificate is not in itself continuing professional development evidence. You should show learning and transfer. How you will use or have used the learning is more important.

Morrison (1997) argued to consider the analogy of walking up a downward escalator. As time goes by, your knowledge and skills with respect to current

thinking and requirements diminishes. Therefore, you need to maintain a certain amount of learning (continuing professional development) to stay still or more to move up, Morrison stated.

Some skills are situation and area specific. If you have acquired skills few years ago, that may be questioned in the present scenario.

2.5.2 Types of CPD Activities

The activities that may enhance your professional growth may include face-to-face lectures, attending workshops, orientation programmes, round-tables, seminars, conferences, independent study of print and non-print materials, conducting research, consultation with peers and experts, and so on.

Face-to-face Lecture

You all know that lecture is the traditional and most common type of CPD activity. It offers full-time educational experience. Lecture method requires relatively common technical support. The participants are to be physically present during face-to-face lecture. However, as the time for interaction between the teacher/trainer and the participants is less, it is called a passive form of learning.

Formal on the job training

Formal on-the-job training is an important method of CPD.

Workshops

Workshop is an important method of CPD activity. Workshop may be organized for short period (3-5 days) in 2-3 months interval. Sometimes 10-15 days workshops are also arranged.



Open Distance education

The methodologies used in Open Distance education must be considered where the participants are widely dispersed and attendance at face-to-face training may be difficult.



Online learning environments are designed to enable teachers/trainers to reflect on their teaching/training practice. Online programmes may consist of reading book chapters/articles, viewing lectures/power point presentations or educational videos, answering questions, chatting, group discussion, and so on. These programmes may be continuous.

Informal learning activities

These include reading books, manuals, articles etc. and familiarization with the operation of computer programmes, equipments, and so on. These activities take place because of institution requirements.

Conferences

Regional, national and international conferences are held throughout the year. In conferences papers are presented according to the theme and sub-themes of the conferences for discussion. You may prepare papers for presentations which may be considered as an important CPD activity. In the conferences you may meet people and experts with similar interests and may find new resources. You may keep in touch with people you meet and also can collect resources and use the same in future.

Institution activities

Institutional activities include coordinating workshops, seminars and conferences, refereeing of articles for publication, acting as resource person in workshops, orientation programmes, membership of different institutional committees, editing journals and news letters, reviewing books and articles for institution journal, research, and so on.

Activity 2

Add some more activities that you may think may be useful for CPD.

2.6 CONTINUING PROFESSIONAL DEVELOPMENT FOR THE TEACHERS: SOME ISSUES

In this section we shall discuss some important issues related to continuing professional development.

2.6.1 Realizing Life-long Learning and New Roles of the Teachers

You will agree that to meet the goals of educational reform the teachers not only to update their knowledge and skills but also to transform their role as a teacher. The teachers need to remain aware about the current issues in education. They should refine their practices in various types of education (conventional and open distance education) and implement innovations. The teachers have to play new roles (as a mentor, facilitator, manager, coach, technologist, assessor, researcher) and develop new instructional strategies for diverse groups of learners. The major roles of a competent online teacher have been outlined (see Goodyear, Salman, Spector, Steeples & Tickner, 2001). Continuing professional development provides opportunities for teachers to explore all these new roles for the new learners in new environments.

Effective professional development accomplishes many goals. Some of them as identified by Cook, Fine & Sparks (1996) are as follows:

- Professional development enriches teaching and improves learning for all students. It is essential link to higher student achievement.
- It supports teacher development, both as individual and as educator.
- It is considered an ongoing process and is conducted in a long-term sustained manner.
- It supports current beliefs about teaching and learning.
- It is based on a growth model rather than a deficit model.
- It is modeled after learning experiences considered valuable for adults.
- It supports systemic change.

There is a need to build the learning communities to support individual and institutional development. Teachers, students, administrators, policy makers, parents, and others have role to play to improve the quality of professional development. However, the role of the teacher is most important. All teachers may not be interested in continuing professional development due to various reasons. McLaughlin (1991) noted that if prior professional development has been a dissatisfying experience, teachers may show little interest. Fine (1994, cited in Cook, Fine & Sparks, 1996) stated that some teachers, especially as they approach retirement, may loose interest in professional development.

2.6.2 Effective Use of Technologies

Professional development for teachers is an important issue for using technology effectively for the benefit of the students. Many teachers in any level of education know how to operate a computer, but do not know how to take advantage of the computer in teaching learning process. There are many teachers who want to learn how to integrate the computer effectively in his/her teaching, but due to lack of support and/or accessibility can not do it. The educational institute must have a well-designed professional development programme to prepare each teacher for effective use of technology.



Researchers have identified some components which are essential for professional development for technology use. These include: a connection to student learning, hands-on technology use, variety of learning experiences, new roles for teachers, curriculum-specific applications, active participation of teachers, ongoing process, sufficient time, technical support, administrative support, adequate resources, continuous funding, built-in evaluation (Rodriguez & Knuth, 2000).

Briefly we will highlight the importance of these components.

Speck (1996) stated that the ultimate goal of professional development is to improve student learning. The use of new technology enables teachers to implement new teaching techniques, interact with the students individually and in a group, teach and help students work collaboratively, develop higher-order thinking skills, problem solving skills, and so on.

Hands-on technology use at the institute and at home allows teachers to feel comfortable with it and develop new skills. This should be a continuous process as professional development takes time. This kind of training is different from one-time teacher workshop which the teachers attend at the beginning of their career. However, adequate technical and administrative support, and feedback are essential for this type of professional development.

Professional development for technology use may help the teachers to integrate new technology into the specific subject area and enhance not only teaching skills, but assessment and evaluation and managerial skills also. The teacher becomes adapted to his/her new role as a facilitator, mentor, manager or coach. He may also be involved in teaching at a distance effectively.

The teacher must be motivated to take part in this type of continuing professional development activities. If we have to provide similar opportunities to all the students (either in face-to-face situation or residing in remote corners of the country) then all the teachers need to be trained following similar procedures. However, providing technical and administrative support is also an important component of effective professional development. When the teacher faces any difficulty, he/she should be provided immediate help and support. If there is delay in support or the support is not adequate, then the teachers may feel frustrated.

2.6.3 Evaluating Professional Development Programme

Evaluation of the professional development programme is very important. It has two main goals: to improve the quality of the professional development programme, and to find out its overall effectiveness.

Evaluation should be built in the professional development programme during the planning stage. It may consist of three types: pre-formative evaluation, formative evaluation, and summative evaluation (Rodriguez & Knuth, 2000).

Pre-formative evaluation assesses teacher's needs during the planning stage.

Evaluation that is done to improve the quality of the professional development programme is called formative evaluation. This evaluation takes place during the professional development activity or at intervals during a programme. Participants are asked to provide feedback, comments or suggestions on the methods/strategies and for further improvement of the programme. These help the trainers to make necessary corrections and adjustments to improve the quality of the ongoing programme.

Evaluation to find out the overall effectiveness of a professional development programme is called summative evaluation. It takes place at the end of the programme. Good summative evaluation uses various techniques to gauge five levels of professional development evaluation:

participants' reactions, participants' learning, organizational support and change, participants' use of new knowledge and skills, and student learning outcomes (Guskey, 1998).

2.6.4 Open Distance Education and Continuing Professional Development

Open distance education is being accepted by many higher education institutions across the world as an economical way of expanding various academic activities including continuing professional development. The number of institutions accepting distance education is increasing every year as well as the number of students. Experts are of the opinion that development of distance and online continuing professional development programmes could contribute toward more efficient and manageable way to maintain professional development for teachers in various levels. By embracing the flexibility of distance learning, students can explore particular areas relevant to their profession or practice and encourage a deep approach to learning (Biggs, 2003). Distance education provides a less threatening environment for the students. There is greater access to support through the use of e-mail, which is less threatening. Distance education also provides timely feedback for the students, supports meaningful learning through informative and rapid interaction (Kitsantas & Chow, 2007).

Professional development in e-learning for the teachers and academics is the priority for open distance learning institutions. The teachers experience increasing demand to deliver online courses. The demand is driven by four main factors: (i) the increasing availability of multimedia capable computers, fast modems and internet access; (ii) the emergence of online technologies that provide a cross-platform, non-proprietary multimedia delivery system; (iii) the promise of enhancement to the quality of the teaching and learning experience; and (iv) being part of the global education market (Ellis, Reilly, & Debreceny, 1998).

The teachers in open distance education need to develop knowledge of pedagogy as it applies to online environment and knowledge of effective and appropriate software, hardware, and networking. Most of the teachers shift from traditional system or work part-time in open distance learning system and do not have required knowledge and skills. So, the staff development plays a significant role in the success of online teaching and learning.

The chapter on "constructivist e-learning for staff engaged in continuous professional development" by Donnelly and Farrell in the edited book "Technology supported learning and teaching- a staff perspective" by John O'Donoghue (2006) reports on the design and implementation of a blended module in e-learning for the continuing professional development of the teachers and also reflects the challenges the authors encountered when designing and developing a blended module on e-learning. The aims of the module were two fold: to introduce to the participants the concept and possibilities of e-learning for their own professional context in higher education, and to enable participants be cognizant of the importance of designing materials and activities to engage their students in learning.

If you go through the chapter you will find that the authors had carefully taken into consideration all the important factors as reported in literature previously while designing the module e.g. reluctance to adopt web-based

supported teaching by academics (Dearn, Fraser & Ryan, 2002), factors that influence levels of adoption e.g. inadequate access to staff development and training (Guthrie, 2003), high workload (Scribbens, 2002), lack of time, and lack of adequate recognition and rewards (Alexander & McKenzie, 1998), and so on. According to the authors the module was designed to help participants learn from experience, to begin to integrate knowledge, and to think reflectively about using e-learning in their teaching practice. The concluding remarks by the authors are very important: effective professional development requires more than skills training; it involves changes in attitude, values, and beliefs that develop confidence for ongoing learning. Constructing knowledge and developing necessary skills to use technology in order to impact learning and teaching does not happen overnight; rather, it becomes the product of common vision and a set of experiences that prepare educators to embark together on a journey of learning (p. 156).

Activity 3

- 1) List three important goals of effective professional development.
- 2) How CPD programme can help the distance teacher? Write your answer within 100 words.

Note: No answer has been provided for these questions. You may answer these questions on the basis of the contents discussed in section 2.6.

2.7 ONLINE CONTINUING PROFESSIONAL DEVELOPMENT (CPD): A FRAMEWORK

It is essential that framework for online continuing professional development are developed within which design of learning resources can be located (Panda & Mishra, 2008). Earlier an online constructivist CPD framework was developed and evaluated. The outcome of the study suggested that there should be inter-disciplinary approach to design, development, and application of curricula. The online activities may be combined with reflective practice in the offline community of practice. There should be provision for networking and exchange in the community of practice (COP) (Panda, 2004).

Framework for online reflective resources

The online CPD framework (see Unit 2, Block 5 of this course) articulated interplay of self reflection, online collaborative interaction and reflection, and collaborative projects in the community of practice towards continuing professional development. Based on the design of and the inter-related variables associated with online professional development, Panda and Mishra (2008) presented a review of design of reflective online learning resources and discussed the same in detail. They have reported a classification of online resources into five elements/tools viz., orientation and organization tools, learning activity tools, interaction and collaborative tools, support tools, and analytic tools can form the basis to further develop online professional development programmes in any professional area.

In this section, we shall highlight the importance and functions of these tools. For an elaborate discussion see Unit 2 in Block 5 of this course.

Orientation and organization tools

It is assumed that these are a set of online tools that helps the reflective practitioners to get oriented to the community of practice and develop confidence by organizing their learning space. The tools are as follows:

Welcome and calendar: Here, the course facilitators/instructors provide an overview of the CPD programme including the objectives and significant activities to be performed by the participants. This web page also provides the calendar of activities in detail.

Instructor and learning community: This page is kept for the introduction of the facilitator/instructor and the participants. They get to know each other and develop a sense of belonging and commitment.

Concept map: A concept map is graphical representation of a concept that shows directional links amongst sub-concepts and establishes hierarchical relationships of terms/contents to facilitate clear understanding of each term/content. It can be used as an advance organizer, and as a tool to check whether the participants have understood the concept.

Syllabus: The design of syllabus/curriculum is a very important aspect. Many factors like culture, learning styles of the participants etc.. to be kept in mind while designing the curriculum.

Learning Activity Tools

The main function of these tools is to enhance learning/training. These tools help in development of new knowledge and skills. These tools are as follows:

Course module: Course modules are important components of online learning and reflective practices. The module design must have variety of choices like language, format, activity, methods, knowledge construction, and so on. Along with the contents, the module may list the objectives, study guide, assignments, reflective activities, and their linkage to online tasks relating to self study and community of practice. The modules may be available as Acrobat PDF files, HTML web pages, MP3 files and multimedia formats as well.

Activities: The participants may be engaged in various activities like self-assessment, assignments, collaborative projects, action research, reflective writing, and so on.

Interaction and Collaboration Tools

It is well known that Internet and World Wide Web provide ample opportunities for interaction and collaboration. Interaction can be synchronous (occurs in real time) and asynchronous (time lag between sending, receiving, and replying). The tools in this category are as follows:

Email: Email along with attachments (various files) is very useful tool.

Discussion forum: Discussion forums are generally meant to motivate for self study, have a group feeling, and an opportunity to express one's ideas, views and feelings in a group.

Online chat: Online chatting can be used in one-to-one basis and in a group. It helps to understand each other's problem and instant clarification of the same.

Participants' corner: The participant can place his/her views, ideas, articles etc. in the corner. The informal environment provided by the participants' corner creates conversation and enjoyment for the participants.

Wiki: It is a combination of a website and a word document. The participant can add, delete and edit content on a wiki site. Wiki is very helpful for collaborative learning.

Web-based video conference: Web-based video conference has become popular in many countries. Web-based video conference promotes reflection through synchronous communication. This tool may be used for CPD effectively.

White board: This is used as an added tool to the synchronous videoconference to create virtual classrooms. The visual medium can promote reflection through collaborative interaction and other activities.

Support Tools

The following support tools are important for online resources framework.

Mentor support: Mentor can provide support to enable participants to further reflect on their learning.

Technical support: The technical support is very important as many participants may not feel comfortable with the new technology. There should be arrangement for non-stop support for the participants.

Web resources: Web resources (additional links) provide opportunity for self-study, analysis and reflection.

Search engines: The participants should be guided to know the strategy to effectively negotiate the available information on the net.

Analytic Tools

There must be a provision for review the progress and improve practice further. Various tools like model evaluation, module evaluation, teaching evaluation, satisfaction, process reflection and learning assessment have been suggested.

In their concluding remarks Panda and Mishra (2008) stated that online learning and online resources encompasses content, pedagogy, and technology and also the teachers and learners as human beings. These resources designed reflectively could lead to enhancing professional practice. However, further research is needed to establish the effectiveness of the reflective online resources designed using the five tools discussed by them.

Activity 4

If you have come across any online CPD programme identify the tools used in that programme. Note the new tools.

2.8 LET US SUM UP

- In this unit we have discussed various issues related to professional development. Professional development is a continuous process that adds value throughout a teacher's career. Professional development is

most effective when the teacher conducts himself/herself through reflective practice and judges the value of training and development activity in terms of its impact on teaching and supporting learning.

- It is important to develop a plan for professional development as it will encourage us to address our professional self-improvement activities in a positive manner.
- The professional development model designed by Jones and Lowe has four phases: Initiating phase (Reflective), Planning phase (Reflective), Managing phase (Active) and Evaluative phase (Reflective after the fulfillment of plan). Each phase is accomplished by addressing a series of steps.
- You can manage your professional development activities. You should make plan in advance.
- Continuing professional development is a method of ensuring that you achieve the right abilities to do your job and maintain or enhance your expertise. It embraces everything that you do to improve, your job performance and 'lifelong employability'.
- The activities that may enhance your professional growth may include lectures, attending orientation programmes, round-tables, workshops, seminars, conferences, independent study of print and non-print materials, conducting research, consultation with peers and experts, and so on.
- Effective professional development accomplishes many goals.
- Professional development for teachers is an important issue for using technology effectively for the benefit of the students. Professional development for technology use may help the teachers to integrate new technology into the specific subject area and enhance not only teaching skills, but assessment and evaluation and managerial skills also.
- Evaluation should be built in the professional development programme during the planning stage. It may consist of three types: pre-formative evaluation, formative evaluation, and summative evaluation
- Professional development in e-learning for the teachers and academics is the priority for open distance learning institutions.
- The teachers in open distance learning need to develop knowledge of pedagogy as it applies to online environment and knowledge of effective and appropriate software, hardware, and networking.
- Online resources may be classified into five elements/tools viz., orientation and organization tools, learning activity tools, interaction and collaborative tools, support tools, and analytic tools that can form the basis to further develop online professional development programmes in any professional area.

2.9 REFERENCES

- Alexander, S. & McKenzie, J. (1998). *An evaluation of information technology projects for university learning*. ACT: Commonwealth of Australia.
- Atherton, J. S. (2010). *Learning and Teaching; Experiential Learning* [On-line] UK: Available: <http://www.learningandteaching.info/learning/experience.htm>
Accessed: 10 July 2010.

- Boyt, T. E., Lusch, R. F., Naylor, G. (2001). The role of professionalism in determining job satisfaction in professional services: a study of market researchers. *Journal of Service Research*, 3 (4), 321-330.
- Cook, C. J., Fine, C. & Sparks, D. (1996). *Critical issues: realizing new learning for all students through professional development* (online) Available: <http://www.ncrel.org/sdrs/areas/issues/educatrs/profdevl/pd200.htm> Accessed on 29 June, 2010.
- Dearn, J., Fraser, K., & Ryan, Y. (2002). Professionalisation of university teaching: A global concern for education development. *Paper presented at the conference: Spheres of Influence: Ventures and Visions in Educational Development*. University of Western Australia.
- Donnelly, R. & O'Farrell, C. (2006). Constructivist e-learning for staff engaged in continuous professional development. In J. O'Donoghue (ed.) *Technology Supported Learning and Teaching-A Staff Perspective* (pp. 146-159). London: Information Science Publishing
- Fine, C. (1994). *Breaking out of the egg crates: Redesigning professional roles and relationships*. Evanston, IL: Doctoral Dissertation on file at National-Louis University.
- Goodyear, P., Salmon, G., Spector, J. M., Steeples, C & Tickner, S. (2001). Competencies for online teaching: A special report. *Educational Technology Research and Development*, 49(1), 65-72.
- Guskey, T. R. (1998). The age of our accountability. *Journal of staff development*, 19(4), 36-44.
- Guskey, T. R. (1999). *Evaluating Professional Development*, USA: Crowin Press.
- Guthrie, H. (2003). (Ed.). *Online Learning: Research Findings*. Leabrook SA, Australia: NCVET (National Centre for Vocational Education Research).
- Hoyle, E. (2001). Teaching: prestige, status and esteem. *Educational Management Administration*, 29 (2), 139 – 152.
- Jones, E.V. & Lowe, J. H. (1982). Teacher evaluation and staff development in adult basic education (ABE). In S. Merriam (ed.) *New directions for continuing education: linking philosophy and practice* no. 15, San Francisco: Jossey- Bass.
- Jones, E.V. & Lowe, J. (1985). *Adult education staff development: programme research and implementation*. *Adult Literacy and Basic Education* 9, no.2: 80-86. (ERIC No. EJ 333 845).
- McLaughlin, M.W. (1991). Enabling professional development: what we have learned? In A. Lieberman & L. Miller (Eds.). *Staff development for education in the 90's* (pp. 61-82). New York: Teachers College Press.
- McIntyre, D. J. & Byrd, D. M. (Eds.) (1998). *Strategies for Career-long Teacher Education*. Teacher Education Network vl. Thousand Oaks, CA: Crowin Press.
- Morrison, M. (1997). Personal development plans, professional development plans or individual development plans (online), Retrieved on July 01, 2010) <http://rapidbi.com/created/personaldevelopmentplan.html>
- Panda, S. (2004). Reflection and continuing professional development: Implications for online distance learning. *Indian Journal of Open Learning*, 13(1), 63-77.
- Panda, S. & Mishra, S. (2008). Reflective online resources for online professional development. *Interactive Discourse*, 1(2).
- Rodriguez, G. & Knuth, R. (2000). *Critical issue: providing professional development for technology use* (online). Available: <http://www.ncrel.org/sdrs/areas/issues/methods/technlgy/te1000.htm> Accessed on 29 June, 2010.
- Sahu, R. (2009). Professionalism in education. *Yemen times*. (available at: <http://www.yementimes.com/>)
- Speck, M. (1996). *Best practice in professional development for sustained educational change*. *ERS Spectrum*, 33-41.

Scribbens, J. (2002). Innovation through ILT. *Paper presented at the Association of Colleges Annual Conference.*

**Continuing Professional
Development: Some Issues**

Susan, I (1990). *Managing your professional development: A guide for part-time teachers of adults*. Eric Digest. ERIC Identifier: ED321155 (online) (Retrieved on July 01, 2010) <http://www.ericdigests.org/pre-9215/guide.htm>

Vrasidas, C. & Glass, G.V. (2004). Teacher professional development: Issues and trends. In C. Vrasidas & G. V. Glass (Eds.), *Current Perspectives in Applied Information Technologies: Online Professional Development for Teachers* (pp.). Greenwich, CT: Information Age Publishing, Inc.



UNIT 3 ASSESSMENT AND EVALUATION OF ONLINE TRAINING

Structure

- 3.0 Introduction
- 3.1 Objectives
- 3.2 Components of Evaluation of Online Programme
- 3.3 Approaches to Evaluating Online Learning/Training
 - 3.3.1 Sloan-C Quality Framework
 - 3.3.2 The CEIT Model
 - 3.3.3 The Portfolio Approach
 - 3.3.4 An Input-Process-Output Structural Framework
- 3.4 Advantages and Disadvantages of Online Training
- 3.5 Post Graduate Diploma in E-Learning (PGDEL): A Case
- 3.6 Academic Counsellor's Training Online (Act Online): A Case
- 3.7 Let Us Sum Up
- 3.8 Check Your Progress: Possible Answers
- 3.9 References

3.0 INTRODUCTION

In Block 2 Unit 4, you have learned various aspects and issues of evaluation. You can define the term evaluation in general also in the context of training and development. You can discuss the reasons for evaluation, and important frameworks for evaluation of training programmes as proposed by various authors. You may also discuss the changes effected by a training programme at knowledge, skills and attitudinal levels of the participants.

With regard to online education/training, you must see how online education works and which tools and techniques you should use. You have acquired some knowledge about these aspects in Unit 1 of this Block.

By this time you know the reasons for evaluation and for whom you evaluate a training programme, you may start work with the content of the training programme, then focus on the methods and techniques used, software used, multimedia used, support provided, and so on. What methods and techniques you should use depends upon many factors. You should keep in your mind the advantages and disadvantages of each method and to decide the best method for evaluation. As you will include the participants (students/trainees, teachers/trainers) for evaluation of a training programme, it is always better to inform them about the purpose of evaluation before you start. Motivation and attitude of the participants are important aspects of evaluation of a training programme.

In this Unit, we shall highlight components of evaluation or in other words what an evaluation should entail, though there are differences of opinions among the experts in this field. We shall discuss some approaches for evaluating online learning/training. We shall present common opinions of the trainees and supervisors in relation to advantages and disadvantages of online training. Lastly, we shall present a case study of online training.

3.1 OBJECTIVES

After going through this unit, you should be able to:

- identify the components of evaluation of online programme;
- discuss various approaches to evaluating online learning/training; and
- highlight the advantages and disadvantages of online training.

3.2 COMPONENTS OF EVALUATION OF ONLINE PROGRAMME

Experts have different opinions with regard to components of evaluation of online programme. You may identify the components from different points of view: Technology point of view, Participants' point of view, Trainers' point of view, and Institutional point of view.

- **Technology point of view:** tools used for online learning/training environment (see section 1.2, Unit 1), strengths, easiness and quality of the software, etc.,
- **Participants' point of view:** learning styles, nature of participation e.g., taking part in activities and group discussions, virtual field trips, interactive essays, number of messages sent and their quality, learning/training outcome (success of the participants),
- **Trainers' point of view:** the way trainers conduct the training, reactions to the participants, method of holding seminar/discussion, group projects, and so on.
- **Institutional point of view:** The outcome of the training for the institution or organization as a whole.

Some authors (Kovalik and Dalton, 1998–1999) recommend a holistic approach to evaluating an online learning/training programme that includes soft data such as learner attitudes, motivation, and generalizability in addition to traditional hard data of performance measures.

Ravet and Layte (1997) suggest learner characteristic assessment such as prior knowledge, special needs, post assessment of the acquisition of new skills and knowledge, and measuring the transfer of that knowledge to real-life situations.

Phillips (1998) stated Return-on-Investment (ROI) will be used in the future to evaluate major expenditures in education and training. Evaluation of the success of education and training can occur at various levels:

Level 1: Participant satisfaction and evaluation of how training will be used

Level 2: Learning outcome measures

Level 3: Changes in on-the-job performance

Level 4: Changes in business impact

Level 5: Return on Investment—the program's cost/benefit ratio

Return-on-Investment analysis includes collecting both hard and soft data. Hard data, for example, includes costs and time and soft data may include measures of job satisfaction, absenteeism, turnover, complaints, and

grievances. Specific calculations for ROI in training are outlined in detail by Stolovitch and Maurice (1998). While Phillips (1998) suggests simplifying ROI calculations, Stolovitch and Maurice (1998) suggest a complicated formula to assess the benefits and costs of any training program. Regardless of the approach, both propose systematic models for assessment purposes that can be manipulated to fit the evaluation context. Following is an outline of the process in both models (Schmееckle, 2003).

Phillip's model

Step 1: Collect data—evaluation instruments, purposes, timing, and levels

Step 2: Isolate the effects of the programme

Step 3: Convert data to monetary value

Step 4: Identify intangible benefits

Step 5: Tabulate programme costs

Step 6: Calculate the Return-on-Investment (ROI)

Stolovitch and Maurice's model

Step 1: Calculate potential for improved performance

Step 2: Calculate estimated training costs

Step 3: Calculate the worth analysis

Step 4: Train

Step 5: Calculate organizational ROI

Evaluating the cost/benefit of educational technology is a necessary approach for any organization moving forward in pursuing extensive use of educational technology within the organization. Components of a cost/benefit analysis can be viewed from different perspectives in order to get a holistic look at the value of training from both the individual trainees and the organization itself (Rossi, Freeman & Lipsey, 1999; cited in Schmееckle, 2003).

Check Your Progress 1

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

ii) Compare your answer with the one given at the end of the unit.

In your opinion what should be the main components for evaluating an online training programme?

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

3.3 APPROACHES TO EVALUATING ONLINE LEARNING/TRAINING

Sener (2010) argued that online learning is not a creature from a different universe. A lot of evaluation tools apply just well to online learning programmes as to other types of programmes. He has cited commonly-used Kirkpatrick and Phillips Scales for example and stated that academic programmes routinely measure student satisfaction (level 1) and learning effectiveness (levels 1 and 2 on that scales) in online courses. Some corporate and academic online learning programmes attempt to evaluate impact at higher levels (behaviour change, return on investment).

Evaluating online training programme should be integrated into the strategic process. This will help to evaluate the training programme from a broader perspective. Evaluation is not an one time affair, it should be an ongoing process (see Unit 4, Block 2). Whether the training programme is long-term or short-term one, the programme may be evaluated in intervals, instead of end-of-programme evaluation. For example, if it is a 30 days training programme for the new faculty of an Open University, the evaluation may take place at 10 days intervals. A quick feedback from the participants helps to identify potential problems and guide the instructors/trainers to solve the problems during the programme and make the training programme more effective.

According to Mateo and Sangra (2007) every evaluative model or practice responds to the conceptions that we have about the teaching and learning process which become visible in strategic decisions we make concerning the design of the educational model and the related assessment model. The evaluative model has the main function of establishing the guidelines for the integration of all gathered information in order to respond to the different objectives of the evaluative action.

Quality of online learning should be measured in terms of student learning achievement and also the effectiveness of the teaching action and to the satisfaction of the assessment process. One of the most important concerns of distance education institutions is to develop a formative assessment system (Mateo and Sangra, 2007). Assessment applied to online training programme must help to identify and apply improvements in the participants' learning process, through a permanent feedback.

A variety of approaches for evaluating online learning effectively are available (see Sener, 2010).

3.3.1 Sloan-C Quality Framework

The Sloan Consortium (Sloan-C) has developed a framework for quality online education (Moore, 2002). It is a composite framework whose five key "pillars" or components (**Access, Student Satisfaction, Learning Effectiveness, Faculty Satisfaction, and Cost Effectiveness**) can be used separately or in combination with a variety of measures to evaluate the effectiveness of online learning. Sener opined that although a major focus of this conceptual framework is supporting online learning programmes that are equal or better in quality to campus-based programmes in higher education, all of the framework's five pillars also focus on effectiveness, and the Faculty Satisfaction and Cost Effectiveness also apply to quality improvement.

The Sloan-C Quality Framework easily accommodates evaluating results and process and integrates well with other evaluation tools such as, the Kirkpatrick and Phillips Scales. These scales correspond closely with Student Satisfaction (K-P level 1), Learning effectiveness (K-P level 2), and Cost Effectiveness (K level 4, P level 4 and 5).

3.3.2 The CEIT Model

Sener (2005) developed a four staged model for evaluating online learning called the CEIT model. The model focuses on **Comparisons(C)**, **Effectiveness (E)**, **Quality Improvement(I)** and **Transformation(T)**.

Sener explained that using comparisons to understand the key attributes or capabilities of various online learning practices can be useful. The results of comparative studies can be used to improve programmes.

Sener argued that focusing on Effectiveness can be deceptively simple (Is it effective? What elements make it effective? What changes would make it more effective?), but it enables evaluation of online learning on its own terms and can provide useful information on what works and does not work.

According to Sener evaluating Quality Improvement focuses on measuring the effects of implementing changes, so the “evaluating product and process” frame is particularly applicable here since both influence the results in practice. Sener explains with an example, online learning object repositories often do not improve quality despite containing excellent resources because existing processes do not adequately support their use (good product, bad process). Conversely, online courses often link to a variety of learner support services, but the services themselves may not be adequate (good process, bad product).

The last stage of the model, Transformation focuses on how online learning programmes affect the organization or institution.

In brief, the CEIT model accommodates application of well-established evaluation tools through determining what is valuable about the results and process of a project, and focusing on the ultimate aims of improvement and transformation.

Check Your Progress 2

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

ii) Compare your answer with the one given at the end of the unit.

i) Name five pillars of Sloan-C Quality Framework.

.....

.....

.....

.....

.....

.....

.....

ii) What are the ultimate aims of CEIT model?

.....

.....

.....

.....

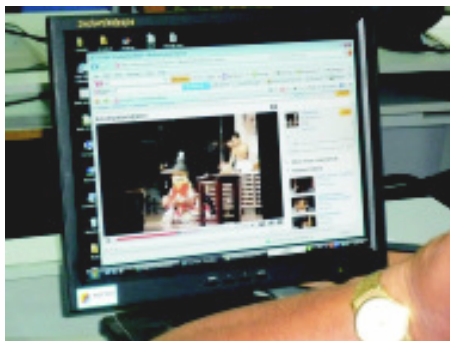
3.3.3 The Portfolio Approach

Mateo and Sangra (2007) explained a new paradigm for assessment design in distance education and online learning. They have discussed some of the possibilities opened by an open sourced platform i.e. Moodle which appears to be one of the best designed platforms to support instructive processes that are closer to the new paradigm (Dougiamas & Taylor, 2003). Its tools allow you to analyse how to manage the information and the communication and also how learning takes place. The portfolio represents an important tool of integrated management in distance education context.

The student/trainee can choose which product are to be included in the portfolio.

The portfolio allows the student/trainee to present his/her creation to the teacher/trainer so that this gets a better understanding of the work in a global perspective. Trainee and trainer get an opportunity to discuss the key elements in a concrete and intelligent way. Debating the contents of the portfolio, all have a clear awareness of the student's/trainee's level of development as an individual and as a participant in an educational/training programme.

From digital point of view, technicians tend to understand the e-portfolio as a digital container that is able to store texts, images, sound and even software instruments in order to manage a big and diverse amount of information (Abrami & Barret, 2005). However, Mateo and Sangra (2007) argued from their point of view it is much more than that. It forms a dynamic and comprehensive meeting space for the processes of instructional, evaluative and personal development of the student (Barbera & Ahumada, 2007).



3.3.4 An Input-Process-Output Structural Framework

Yu (1999) proposed a structural framework with an emphasis on input-process-output for evaluating web-based instruction. The framework also functions as a reference for conceptualizing an evaluation from abstract level

to the specific level. The structural framework has four levels of abstraction: **paradigm, theory, model, and measurement**. However, the emphasis on input-process-output is firmly embedded in the paradigm level.

According to Yu (1999) the proposed structural framework endorses a paradigm that emphasizes input-process-output of human learning inspired by cognitive psychology. This paradigm challenges the input-output emphasis under a “black-box” approach. An input, which is usually a treatment, is delivered to the intended audience, the output, which is usually an observable outcome, is evaluated and the effectiveness of the treatment is inferred.

It is stated that under this framework, the procedures for evaluating web-based instructions could be viewed in two dimensions. The first dimension is **level of abstraction** (*defining various constructs and concepts, defining variables, developing or applying instruments to measure the variables in the measurement, and determining the relationships among the variables based upon the data collected by the instruments*).

The second dimension is the **input-process-output stream** (*defining the media properties, defining the mental constructs and mapping them to the media properties, defining the criteria of achievement specifying the behavioural outcomes*).

Media properties: It is important to define what web-based instruction is by identifying what certain features are introduced by the implementation of the medium. The evaluation should focus on those specific properties. Typical examples of web-based instructions properties are: learner control modules that present self-customized sequences to various learners, virtual communities that provide chat rooms, threaded discussions, and ListServ groups, hypermedia with graphical representations and animated illustration of information, hyperlinks to world-wide resources (Yu, 1999). One way to treat the tools which carry specific media properties as numeric variables and track the frequency of using the tools, e.g., the number of chat, threaded discussion, and ListServ messages could indicate the utilization of the participants. The number of time spent and the number of page accessed within the web-based instruction could reflect the user engagement. Several web traffic tracking technologies can be used to collect data for studying user patterns on web-based instruction (Yu, Jannasch-Pennell, DiGangi, & Wasson, 1998).

Mental constructs: Different media properties can change different aspects of participants mentality. A mental construct can be broken down into several variables for in-depth investigation. We can take collaboration for an example, which can be defined by eight factors: (i) openness to learning opportunities, (ii) self-concept as an effective learner, (iii) initiative and independence in learning, (iv) informed acceptance of responsibility for one's own learning, (v) a love to learn, (vi) creativity, (vii) future orientation, and (viii) the ability to use basic study skills and problem solving skills (Guglielmino, 1977; Guglielmino & Murdick, 1997) These variables could be measured by validated and reliable instruments on attitudes and cognitive styles (Yu, 1999).

Achievement: The attitudinal and cognitive change could result in improvement in Internet knowledge and skills (using web search, e-mail, newsgroups, threaded discussion etc).

Behavioural outcome: It is expected that test scores of Internet skills could predict the application of Internet skills reflected by observable behaviours. If the participants, for example, are the Open University teachers, then incorporation of Internet technologies into teaching, course designing and providing support to the students are expected. There may be different variables such as, the number of web pages developed for courses, the frequency of using the Internet as a source of teaching materials, and so on. These variables could be measured using various techniques like survey, interview and on-site observation.

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.

i) Mention two advantages of portfolio.

.....

.....

ii) Mention few media properties on which the evaluation should focus.

.....

.....

.....

.....

.....

3.4 ADVANTAGES AND DISADVANTAGES OF ONLINE TRAINING

You may find reports and discussions on advantages and disadvantages of online training in books, journals, Internet, and so on. You will find some common advantages and disadvantages as reported by the participants and trainers/supervisors. Here, we shall mention some advantages and disadvantages of online training as reported by the trainees and supervisors of an online training programme (Schmeeckle, 2003).

The common advantages as reported by the trainees are:

- No travel
- Convenience and time saver
- Could do at own pace and be able to work around own schedules
- Being able to stay home and do it
- No travel cost

The common disadvantages as reported by the trainees are:

- Not having classroom interaction, discussion
- Not able to ask questions and/or clarify information
- Missing out on great stories, meeting people and making friends
- Going too fast
- Would still required to work

- No hands-on experience

The common advantages as reported by the supervisor are:

- More current and updated information
- Employees can train while doing duties
- No need to leave home/family

The common disadvantages as reported by the supervisors are:

- Loss of experience from discussion with other students and instructors
- No other disadvantage

These are not complete lists. You may see Schmeeckle (2003) for detail report. You know well that the responses you obtain after the training programme provide very good input for evaluating the same training programme.

3.5 POST GRADUATE DIPLOMA IN E-LEARNING (PGDEL): A CASE

Indira Gandhi National Open University (IGNOU) offers the Online Post Graduate Diploma in E-Learning (PGDEL) from January 2010 to develop professional competencies in offering online programmes in the Country. The programme is offered through the Staff Training and Research Institute of Distance Education (STRIDE).



The objectives of the programme are to develop human resource capabilities in planning, designing, developing, implementing, and evaluating e-learning programmes.

The programme has blended learning with compulsory face-to-face practical at the Headquarters, Intensive online training to develop e-learning professionals, strong project work component to facilitate hands on work in online learning tools, personalized online student support, use of Open Educational Resources (OERs) and recommended texts, use of Moodle Learning Management, synchronous delivery methods using online conferencing tools, and extensive use of discussion forums for both academic and personal support.

3.6 ACADEMIC COUNSELLOR'S TRAINING ONLINE (ACT ONLINE): A CASE

Academic Counsellor's Training – Online (ACT-Online) programme is designed specifically for those who are engaged in or wish to be engaged in the tasks of providing tutoring/counselling and other technology mediated support to the distance learners. The programme is offered through the Staff Training and Research Institute of Distance Education (STRIDE).

The ACT-Online is grounded in both the theory and practice of Open Distance Learning. Some of the important contents covered in this programme are: ODL concept, models of ODL, student support services, tutoring and counselling, handling of assignments, evaluation of assignment responses with tutor comments, development of study skills, support to the educationally disadvantaged students, use of new technologies for students support, and so on.

The objectives of the programme are to develop human resource capabilities in planning, designing, organising student support services with special reference to tutoring and counselling, evaluating assignments, using new technologies, and so on.



[About Programme](#) [How to Register](#) [Login](#) [ACT Team](#) [Target Group](#) [Contact Us](#)



Academic Counsellors' Training – ONLINE
QUALITY LEARNING THROUGH QUALITY ACADEMIC COUNSELLING:
Empowering the Academic Counsellors to facilitate Student Learning

The ACT-Online programme consists of three components. These are (i) study materials which are uploaded in LMS, (ii) Power point presentations which support the study materials, and (iii) video programmes which supplement the study materials.

Each component facilitates the participants to work on their assignments online.

This Programme is entirely developed in IGNOU LMS (developed in ASP.net and MySQL. The inbuilt discussion forum facilitates the peer to peer and facilitator to peer interaction as well. IGNOU LMS also provides calendar, in which participants get tasks and schedule of the programme. Announcement is another component in which the participants get the latest information and update of the programme. The main component of the LMS is 'My Portfolio', where participants get the facilities to upload their assignments and receive marks after evaluation is done by the evaluators.

3.7 LET US SUM UP

In this unit, we have discussed component of evaluation of online programme. We have mentioned that you may identify components from different point of view: technology, participants, trainers, and institutional. We have touched upon very briefly on few models like Philip's model, Stolovitch and Maurice's model. We have discussed various approaches to evaluate online learning/training. A variety of approaches for evaluating online learning effectively are available. The Sloan – C quality framework is a composite framework whose five key “pillars” or components: Access, Satisfaction, Learning Effectiveness, Faculty Satisfaction, and Cost Effectiveness can be used separately or in combination with a variety of measures to evaluate the effectiveness of online learning. The CEIT model developed by Sener focuses on comparisons (C), Effectiveness (E), quality improvement (I) and Transformation (T).

We have also highlighted the portfolio approach, and an input – process – output structural framework.

There are some common advantages and disadvantages of online training. At the end we have highlighted two case studies of IGNOU: Post graduate diploma in e-learning and Academic counsellor's training online.

3.8 CHECK YOUR PROGRESS: POSSIBLE ANSWERS

Check Your Progress 1

Online training programme can be evaluated from

- Technology point of view (tools used for online learning/training environment, strengths, quality of the software, etc.)
- Participants' point of view (learning styles, nature of participation e.g., taking part in activities and group discussions, virtual field trips, interactive essays, number of messages sent and their quality, learning/training outcome, and so on)

- Trainers' point of view (the way trainers conduct the training, reactions to the participants, method of holding seminar/discussion, group projects, and so on)
- Institutional point of view (the outcome of the training for the institution or organization as a whole).

Check Your Progress 2

- i) Five pillars of Sloan-C Quality Framework are: Access, Student Satisfaction, Learning Effectiveness, Faculty Satisfaction, and Cost Effectiveness
- ii) CEIT model accommodates application of well-established evaluation tools through determining what is valuable about the results and process of a project, and focuses on the ultimate aims of improvement and transformation.

Check Your Progress 3

- i)
 - a) The portfolio allows the learner/trainee to present his/her creation to the teacher/trainer so that this gets a better understanding of the work in a global perspective.
 - b) Trainee and trainer get an opportunity to discuss the key elements in a concrete and intelligent way.
- ii) Examples of web-based instructions properties are: learner control modules that present self-customized sequences to various learners, virtual communities that provide chat rooms, threaded discussions, hypermedia with graphical representations and animated illustration of information, hyperlinks to world-wide resources, and so on.

3.9 REFERENCES

- Abrami, P.C. & Barrett, H. (2005). Directions for research and development on electronic portfolios. *Canadian Journal of Learning and Technology*, 31(3), 1-15.
- Barbera, E. and Ahumada, M. (2007). Assessment of Research Competences Using e-Portfolio". In Bernath, U. and Sangra, A. (Eds.) research on Competence Development in Online Distance Education and E-learning. Oldenburg: Bis-Verlag der Carl Von Ossietzky Universitat Oldenburg.
- Dougiamas, M. and Taylor, P. (2003). Moodle: Using Learning Communities to Create and Open Source Management System, *World Conference on educational multimedia, hypermedia and telecommunications*, 2003 (1), 171-178.
- Guglielmino, L.M. (1977). Development of the Self-directed Learning Readiness Scale, Unpublished doctoral dissertation, University of Georgia, Athens, GA.
- Guglielmino, P. J. and Murdick, R.G. (1997). Self-directed learning: The quiet revolution in corporate training and development. *Advanced Management Journal*, 62, 10-18.
- Kovalik, C. L. and Dalton, D. W. (1998-1999). The process/ outcome evaluation model: A conceptual framework for assessment. *Journal of Educational Technology Systems* 27: 183-194.
- Mateo, J. and Sangra, A. (2007). Designing online learning assessment through alternative approaches: facing the concerns. Retrieved on August 02, 2010 from http://www.eurodl.org/materials/contrib/2007/Mateo_Sangra.htm
- Moore, J. (2002). Elements of Quality: The Sloan-C Framework. Needham, MA: Sloan Centre for Online Education.

- Rossi, P.H., Freeman, H.E., and Lipsey, M.W. (1999). *Evaluation: A Systematic Approach*, Sage, Thousand Oaks, CA.
- Schmeeckle, J.M. (2003). Online training: An evaluation of the effectiveness and efficiency of training law enforcement personnel over the Internet. *Journal of Science and Technology*, Vol.12, No.3 205-260.
- Sener, J. (2005). 'Beyond the Comparison Trap: Strategies for Effective Online Learning Evaluation'. Eleventh Sloan-C International Conference on Asynchronous Learning Networks, Orlando, November.
- Sener, J. (2010). Effectively Evaluating Online Learning Programs. eLearn: in Depth Tutorials. Retrieved on July 31, 2010 from <http://www.elearnmag.org/subpage.cfm?section=tutorials&article=23-1>
- Yu, C.H. (1999). An input-process-output structural framework for evaluating web-based instruction. *Educational Assessment*. Retrieved on August 13, 2010 from <http://www.creative-wisdom.com/teaching/assessment/structural.html>
- Yu, C.H., Jannasch-Pennell, A., DiGangi, S., & Wasson, B. (1999). Using On-line interactive statistics for evaluating web-based instruction. *Journal of Educational Media International*, 35, 157 -161.

