

# Designing an Online Learning Environment for Participatory Management of Displacement, Resettlement and Rehabilitation

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## INTRODUCTION

Web-based courses are innovative approaches to distance education, where teaching and learning processes take place through the technologies and methodologies of the World Wide Web (WWW) (Powell 2001). The web technologies are being used popularly at all levels of education and training (Khan 1997). No other form of educational technology has made so much impact in the field of education and training as that of the Internet and its WWW. The new technologies appear to offer many advantages over conventional formats including economies in cost, greater levels of access to students, more flexible teaching and learning approaches and enhanced educational opportunities (Oliver 1999). Weller (2000) outlines the following advantages of the uses of the Internet as a delivery mechanism for distance education over conventional methods:

- i. Quick production: Traditional print or broadcast material can take a long time to produce.
- ii. Quick alteration and up to date course material: Conventional materials such as print, television, computer-based learning programs and so forth can be costly to alter on large scale.
- iii. Interaction with, and feedback from, students.
- iv. Interactive learning materials having animation, assessment and simulation.
- v. Flexibility in study pattern provided through various asynchronous tools of the web.

The number of universities that offer distance education courses and programmes has increased exponentially since the 1980s (Jones and Gower 1997). According to the World Communication and Information Report 1999-2000, there are 5, 022, 687 hosts with educational (.edu) domain name. There are many educational resources with .org and .ac domain names as well. However, most of the web-courses are nothing more than a classroom lecture materials posted in to the web. Carr-Chellman and Duchastel (2000: 29) says “that many online courses lack basic design consideration and that the web is simply being used as a medium for the delivery of instruction created within another framework”. Detailed evaluation of online learning environments frequently reveal that courses tend to be electronic versions of the conventional print-based versions from which they have been derived (Dehoney and Reeves 1998).

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In this paper an attempt has been made to review the design considerations of online learning environments in the certificate programme in Participatory Management of Displacement, Resettlement and Rehabilitation, the first social science online programme in India, offered by the Indira Gandhi National Open University (IGNOU), New Delhi. The paper is divided into three parts. Part 1 deals with online learning environments, Design framework, and issues in designing online learning environments. Part 2 discusses the online Postgraduate Certificate programme of study in Participatory Management of Displacement, Resettlement and Rehabilitation (PGCMRR) at IGNOU. Part 3 provides a brief account of important problems faced and lessons learnt during the running of the first session of the programme from July 2001 to December 2001.

## **PART I**

### **ONLINE LEARNING ENVIRONMENTS**

The learning environments that learners can experience can be categorized in four ways: traditional classroom-based, tele-learning based, computer-based and web-based (Table 1).

**Table 1: Learning environments**

<b>Scenario</b>	<b>Time of events for all learners</b>	<b>Location of event for all learners</b>	<b>Example</b>
1	Same time	Same place	Traditional classroom
2	Same time	Different place	Tele-learning, teleconference
3	Different time	Same place	Advanced computer-based learning in classroom
4	Different time	Different place	Web-based learning

*Source: Chute et al (1999)*

The web technology provides an integrated scenario of 2 and 4 (in Table 1) with synchronous and asynchronous communication. The online learning environment can be of three types: One using the web as a supplement to face-to-face instruction, two, using the web in a mixed mode with face-to-face instruction and three, using web-based instruction instead of face-to-face instruction (Berge et al 2000). The online environments of the type three are referred in the literature as web-based instruction, virtual learning, online learning and e-learning. However, the learning process in these environments is basically “hypermedia based instructional programme, which utilizes the attributes and resources of the World Wide Web to create a meaningful learning environment where learning is fostered and supported” (Khan 1997).

### **DESIGN FRAMEWORK**

A framework provides a basis for designing instruction. Sometimes it is referred as philosophy or the theory behind a specific design. Three schools of thought (*see* Table 3) have been widely used and explored to provide guidance for instructional practice: behaviourism, cognitive psychology and constructivism (Villalba and Romiszowski 2001). However of the three, constructivism has been identified as the most suitable one for online learning environments (Hung 2001, Oliver 1999, Hung and Nichani 2001). Constructivist learning environments, Lebar (1993) suggests, should have the following minimum requirements:

- Provision of the experience of the knowledge construction process
- Provision of experience in and appreciation of multiple perspectives
- Creation of learning tasks which are relevant and authentic
- Encouragement of ownership and voice in the learning process
- Learning embedded in social experience
- Encouragement of the development of multiple modes of representation
- Encouragement of self-awareness of the knowledge construction process

The constructivist learning paradigm transforms the ‘teacher-directed learning’ to ‘student-directed learning’. As such it holds the following premises (French et al 1999):

- Objectives are written with student collaboration based on the learner’s need;
- All the learners are unique and bring their own social understanding to learning context;
- Problems are solved when they have personal relevance to learning;
- Knowledge is individually and socially constructed; and
- Learning can only be measured through direct observation and dialogue

While web enables to transform constructivist tasks to be used in online learning (Table 2), the design framework (Mishra, 2002) for the PGCMRR is an eclectic one where the three learning theories and their basic instructional approaches (Table 3) have been used. Figure 1 depicts the design framework used in PGCMRR.

**Table 2: Constructivist tasks Vs. web tools**

<b>Constructivist tasks</b>	<b>Web tools</b>
Establishment of personal and group objectives/goals	Emails, discussion groups, note pads
Discuss and debate ideas and receive feedback	Emails, discussion groups, voice-chat
Seek and collect information	Web page, search engines, digital drop boxes, book marking
Organizing information in a coherent framework	Software to analyze data, prepare labels, charts and concept maps
Integrate different external information to internal conceptions	Note taking, annotations etc.
Generate/construct new information	HTML editors, web page creation tools, word processors, etc.
Manipulate external information and variables	Simulation and animation on the web
Understanding real world phenomenon	Streaming media technology for audio and video

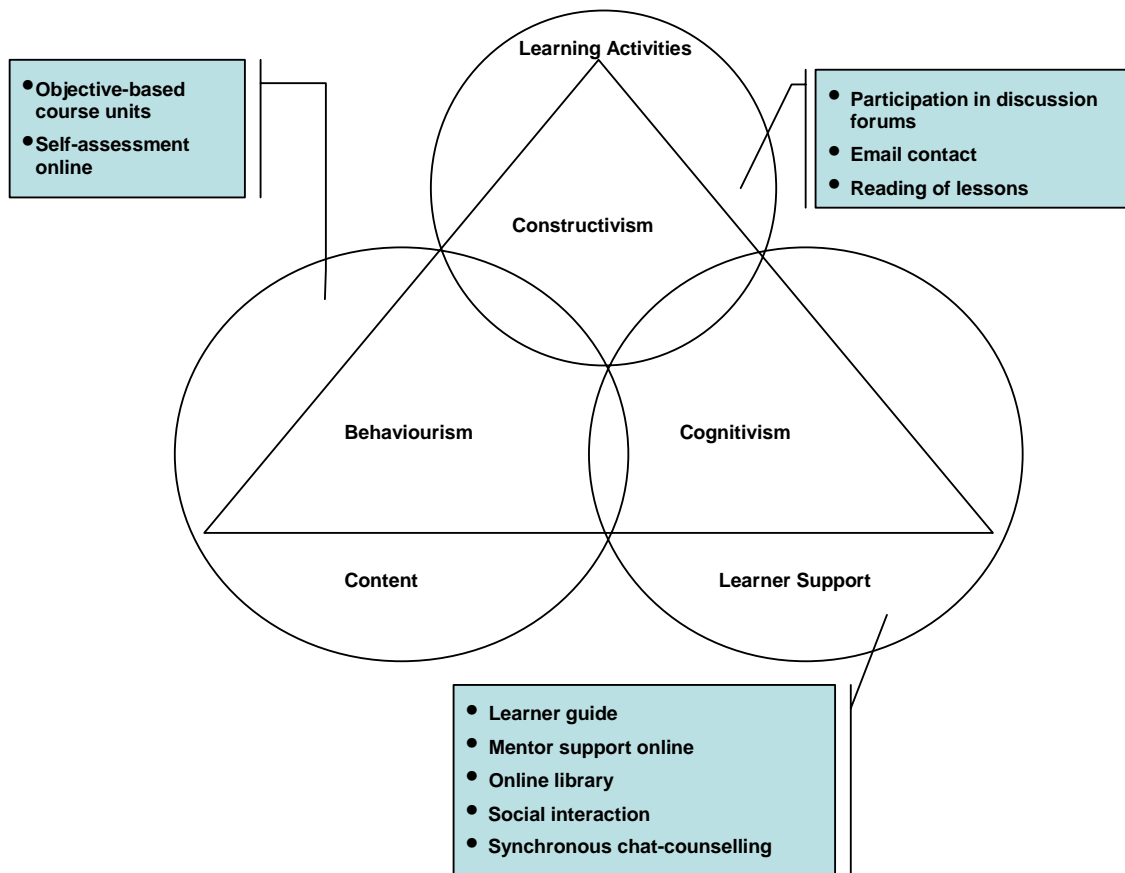
*Source: Based on Oliver (2000)*

## **DESIGNING ONLINE LEARNING ENVIRONMENT**

There are many guidelines available for those planning to design online courses (Duchastel 1997, Berge 1998, Collis and Moonen 2001, Liu 2001, Mishra 2001). Pulist (2001) has identified the design and development issues, pedagogical issues, technical issues, organizational, and institutional issues as components of effective online learning environment. Powell (2001) provides a checklist of design principles for online courses. Byun et al (2000) elaborate the following ten-commandments for course development process:

- i. Start the design and development process early
- ii. Research the minimum hardware/software available to students

- iii. Identify and arrange for necessary administrative and technical support, both for students and instructors
- iv. Develop a plan for evaluating student learning and assessing course quality
- v. Look for models and colleagues
- vi. Publicize course offerings in both traditional and online venues
- vii. Arrange for necessary copyright permissions
- viii. Focus on the management of instructor-student communication
- ix. Facilitate faculty in their efforts to become self-supporting
- x. Arrange for usability testing with potential and past student of the course



**Figure 1: Design framework for online learning environments**

Weston and Baker (2001) describe six lessons for developing web-based learning modules. The lessons are:

- i. Familiarize yourself with what is available and don't reinvent the wheel
- ii. Focus on content and instruction not technology; identify audience, prepare objectives, identify instructional methods, plan for assessment and give clear instruction and navigation opportunities
- iii. Don't touch the computer until you have to. Prepare storyboard before you actually go for development

- iv. Collaborate and access expertise. Online course development is not one person job, it is a team work of instructional designers, content experts, graphic designers and web programmers
- v. Test for usability and pilot with potential users
- vi. Assess the value added for meeting learning objectives

Kang (2001) provides a collaborative model for the design of online courses, which emphasizes constant interaction amongst instructional designer, content expert and support personnel (technical). Three ingredients of collaborative approach identified are communication, commitment and creativity. The PGCMMR programme followed this collaborative approach in its development. The roles played by the key players are depicted in Table 4.

**Table 3: Approaches to instruction**

Learning Theories	Overall assumption	Basic instructional approaches	Online approaches
Behaviorism	<ul style="list-style-type: none"> <li>• Basically, behaviour is a function of its consequences. Learning is achieved through frequent response and immediate reinforcement of appropriate behaviour</li> <li>• Essentially, behaviour and performance are either seen as synchronous or performance is seen as the useful outcome of learning behaviour</li> </ul>	<ul style="list-style-type: none"> <li>• Instruction is designed to promote individual pacing and progress</li> <li>• Instruction is designed using a task analysis, which breaks down the behaviour into a sequence of observable actions</li> <li>• Assessment practices measure objectives in which behavior is operationally defined and measured according to some performance indicators</li> </ul>	<ul style="list-style-type: none"> <li>• Lessons with explicit objectives in behavioural terms in the web pages</li> <li>• Use of self-assessment questions as interactive activities in the learning materials</li> <li>• Step-by-step description of learning materials in small chunks</li> </ul>
Cognitivism	<ul style="list-style-type: none"> <li>• New information is built on existing structures</li> <li>• Relevant processing activities are stimulated and specific strategies are taught to assume that the learner efficiently acquires the information or solves the problem</li> </ul>	<ul style="list-style-type: none"> <li>• Instruction is designed to promote processing activity akin to that of an expert</li> <li>• Assessment practices rely on observable behaviour but infer specific mental operations based on the design of the test</li> </ul>	<ul style="list-style-type: none"> <li>• Use of note-taking and annotation</li> <li>• Instructions for learning to learn</li> <li>• Peer-assessment of learning</li> <li>• Information seeking through search engines</li> </ul>
Constructivism	<ul style="list-style-type: none"> <li>• Learning is understood as interpretative and emergent, and under the control of the learner. Cognition is situated and must be understood in terms of the setting, purposes, tools, and tasks in which the knowledge is to be learned.</li> <li>• Knowledge is to a large extent a negotiated meaning as cribbed to reality and should be achieved via collaborative group work</li> </ul>	<ul style="list-style-type: none"> <li>• The goal structure need to be negotiated through teacher-learner interaction</li> <li>• Learners are at the centre of the design activity. Some form of constructivism stress cooperative learning</li> <li>• Assessment practices are designed around real-life problems and promote self-evaluation and reflection and to maximize learner responsibility</li> </ul>	<ul style="list-style-type: none"> <li>• Use of discussion forums and chat (both synchronous and asynchronous techniques)</li> <li>• Email transfer amongst learners</li> <li>• Group projects</li> <li>• Streaming media use</li> <li>• Provision for social activities on the net</li> </ul>

Source: Based on Villalba and Romiszoski (2001)

**Table 4: Roles of key players in online course design**

<b>Key Players</b>	<b>Expertise</b>	<b>Role in the design process</b>
Content Expert	Subject matter Writing lessons Use of computers	Course outline preparation: Scope, learning objectives and content structure Preparation of assessment items and discussion questions Conceptualizing and visualizing the learning process in terms of experiential exercises
Instructional Designer	Instructional design system Interface design Online learning Training on lesson writing	Designing the front-end of the online course Identifying course activities based on the need of the subject in collaboration with content experts Development of a prototype Transformation of the lessons for online presentation
Support Staff	Web programming Multimedia Networking Computer Science	Digitization of learning materials Development of graphics Development of the learning site

## **PART II**

### **THE PGCMMR PROGRAMME**

The Postgraduate Certificate programme in Participatory Management of Displacement, Resettlement and Rehabilitation (PGCMRR) emerged out of the initiative of one of the authors of this paper and the financial support from the World Bank as well as IGNOU's commitment to offer courses and programme to diverse groups of learners. The main objective of the programme is to provide participatory management skills to people involved in resettlement and rehabilitation work. The target groups of the programme are:

- Persons engaged in resettlement and rehabilitation divisions of development projects of the government, private sector as project officers, technical experts, field staff and/or desk staff
- Those working with the NGOs, industrial establishments and other agencies involved in resettlement and rehabilitation of those displaced by development projects.

The programme is open to graduates with access to and basic competence in the use of computers and Internet. It is of six-month duration. The programme, however, can be completed in 2 years time. This flexibility is given only for the submission of the project work. Other course requirements have to be completed in the semester of enrolment. First batch of the programme started in July 2001.

### ***Guiding Principles***

Based on the profile of the target audience and the nature of the subject, before we started designing the online learning centre, we identified the following guiding principles for ourselves:

- i. Most of the learning tasks of the programme shall be completed online with least face-to-face contact.

- ii. Learners can manage their own learning, cooperate with others and take part in discussions. This will facilitate highly motivated and self-directed learners.
- iii. Learners get opportunity to construct their own knowledge, based on a variety of inputs and by sharing their insights with others (IGNOU faculty and fellow learners) through online discussions.
- iv. Teachers (mentors) mostly act as facilitators who ensure right educational advice at the right time in a right way. They provide diagnostic as well as remedial help to the learners.
- v. The learning centre shall be with minimum graphics and multimedia content to facilitate easy access, as the bandwidth available to the learners is low.
- vi. Following the IGNOU's supplementary approach to audio and video, the learning centre will use CD-ROM to deliver audio and video, with just annotations of them on the Web.

### ***Programme Design and Media Mix***

The PGCMMR consists of five courses for a total of 16 credits (Table 5), where each credit is equivalent to 30 study hours for the learner. There are four theory courses and one practical oriented project work. Basically, the project work is the application oriented end of the other four courses. The four theory courses have 48 lessons or units packed in 13 modules. The media mix for the programme is depicted in Table-6. The use of CD-ROM for delivery of audio, video and the course lessons were taken because of the low-bandwidth and poor connection of the Internet available to the learners. The course lessons were all available online, except for the audio and video element. The audio and video section has annotations only. The learners are expected to make use of the online learning centre for completion of their assignment related work as well as interaction with mentors and among themselves.

**Table 5: Programme structure of PGCMMR**

Course code	Title	Credits	No. of modules
MRR 01	Understanding Development and Displacement	3	3
MRR 02	Role of Participation in Sustainable Development	3	2
MRR 03	Participatory Planning of Resettlement and Rehabilitation	3	4
MRR 04	Participatory Implementation and Monitoring of Resettlement and Rehabilitation	4	4
MRR 05	Project Work	3	Guidelines

**Table 6: Media-mix for PGCMMR**

Media	Description	Delivery mode
Text, Graphics, animation	All the lessons for the four courses and the guidelines for project work	Available through CD-ROM and Internet ( <a href="http://www.ronline.org">http://www.ronline.org</a> )
Audio	Eight audio programmes; each of 20-30 minutes	Available in CD-ROM and <i>Gyan Vani</i> (FM educational radio)
Video	Five video programmes; each of 25-30 minutes	Available in CD-ROM and <i>Gyan Darshan</i> (Educational TV Channel)
Interactive Computer-based	For all activities related to assignments and counseling	Only through the Internet ( <a href="http://www.ronline.org">http://www.ronline.org</a> )
Teleconference/ Interactive TV through <i>Gyan Darshan</i>	Panel discussion for at least 4 hours on important topics	<i>Gyan Darshan</i>

### ***Learning Design***

Considering the profile of the prospective learners, the learning centre for PGCMRR (<http://www.ronline.org>) has been kept very simple and interactive. Caution has been taken to see that learners are not lost in the cyberspace, and therefore a constant panel appear in the left hand side (Fig. 2). By clicking the buttons in the constant panel, the learners navigate through the site.



**Figure 2: Learning centre of PGCMRR**

***Announcements:*** This section keeps the learners abreast of latest information regarding the course. This area actually works as a notice board for the learners.

***Programme Guide:*** It is the online version of the generic instructions given to students at IGNOU for a particular programme. In this section access to few sample courses are provided for all the visitors of the website to have a feel of the programme.

***Courses:*** This section provides the registered learners of PGCMRR access to all the lessons in the four courses as well as to the guidelines for project work. Each lesson has been designed in a manner to promote active learning rather than passive learning. Considering the behaviouristic approach, each lesson has been divided into small chunks with self-assessment questions (SAQs) interspersed within it. Once the learners work on the SAQs and submit it, the system provides immediate feedback about the correctness of the response automatically. The learner can then compare her/his answer with the answer generated by the online system.



**Counselling:** For the purpose of providing synchronous communication, e-counselling/chat groups have been created in the system. Normally each learner is allotted to a group of about 10-15 students and one mentor. The mentors are expected to organize chat sessions on topics of interest at suitable intervals throughout the academic session. The chat sessions are not compulsory in tune with the principle followed in the University for counseling. However, the learners are encouraged to make use of this facility to clarify their doubts instantly. In chat sessions the learners may share their views and experiences with the mentor as well as fellow learners online, comprehend some of the complex concepts and ideas better, discuss the course materials, get clarification on their queries and receive support on project work.

**Assignments and their Evaluation:** This is a compulsory component for the learner to complete the programme successfully. It is continuous in nature and the main purpose of the assignments is to test the learner's comprehension of the concepts and help them to get through the courses. Additionally the continuous process of work related to assignments is to establish a community of learners for i) sharing ideas and experiences among themselves, ii) deriving benefits from the point of view of fellow learners, and iii) gaining confidence in expressing ones own view in a congenial and friendly learning environment of one's own peer group. There are three types of assignments in the PGCMMRR, viz. Online Computer marked Assignments (OCMA), Participation in Discussion Forums (PDF) and Online Diary (OD). The three sets of assignments carry 50 per cent of weight in the total evaluation.

**OCMA:** This is an objective type multiple-choice test used for all the four courses. A typical test consists of 25 questions to be answered in 30 minutes. The tests are timed and once completed can't be modified. The questions appear one by one in the screen to be answered by the learner. The answers are evaluated by the system and the marks received automatically go to the learner profile for onward transmission to the evaluation division. Overall the OCMA gets 10 per cent weight in the evaluation structure of assignments.

**PDF:** Considering the learner profile (graduate and experienced in the field) and the nature of the subject, this assignment was added into the system to maximize student learning from peer to peer interaction. Each course has one discussion forum, and learners participate in it as group of 10-15 each. Each learner is expected to provide comment/answer to the PDF question/topic and comment on the posting of other members of the group and evaluate them. As such group members provide comment as well as grade/mark to all other group members. After receiving comments for her/his posting, each learner is expected to revise her/his answer and post it again. This last posting is evaluated by the mentor. The average of the marks given by the learners (50%) and the mentor (50%) makes the total grade/mark in one PDF. There is only one PDF question for each of the course. Overall the PDFs carry 20 per cent weight in the evaluation of assignments.

**OD:** The online diary has been conceptualized in order to facilitate reflective thinking and preparation for the project work. The learner is expected to make daily diary

entry online about his/her activity in relation to the project work/ courses. They have an option to type it out in a word processor regularly and submit at one go as well. The diary entries are evaluated by the mentors twice during the entire duration of the programme. The checking and assigning of mark is done in respect of the quality of reporting or recording of activities and observations, especially during participatory activities and observations in the field. The diary receives 20 per cent weight in the evaluation of assignments.

***Term-End Examination:*** The programme has no traditional three hour paper test. The project work is considered as the final examination. The Project Work receives 50 per cent weight in the overall evaluation, which can be submitted any time after five months of the programme cycle. This is a unique feature of this programme, and has been designed consciously to suit the needs of complete online learning and also provide learning evidence through application of knowledge gained. The learner is provided the guideline for project work as Course 5. Though it is an independent non-guided work, the learner can actually discuss her/his project with the mentor. Apart from the usual typed report, the learner can submit her/his project report in different kinds of formats such as video film, audio, slides, pictorial depiction of an event, etc.

***Other Important Features:*** The learning centre has facility for online access to other related materials, searched, identified and filtered by experts in the field. There is a private place for each learner with his/her complete details like name, gender, address, date of birth, enrolment number, log-in name, password, assignment grades, etc. The learners can change their password and address from this section. There is also a section for social chat amongst learners, which emulates the cafeteria concept. The site is password protected, and only authorized/registered users can make use of the facilities. The site also features an in-built communication centre for e-mail communication amongst learners and mentors.

## **PART III**

### **EXPERIENCES AND FUTURE OF THE PROGRAMME**

In the first cycle, the course attracted 76 students of which only 60 registered for the programme. Monitoring the running of the programme during its July-December 2001 cycle has brought forth for us several occasions to improve the online delivery. The following account pertains to some problems encountered and lessons learnt by the programme development team. It does not include those features that occur at the time of running any distance education mode program of study. For example, nearly fifty per cent students took advantage of the flexibility of longer duration for completing the courses and did not commit themselves to pursue the various activities entailed in completing the assignments. Though important and demands discussion in its own right, this paper has not gone into the issue of possible reasons for the phenomenon of 'sleeping students' in distance education mode. Rather we are attempting an analysis of the online activities of those who took the initiative of actively involving themselves in completion of the various components of continuous assessment and used the online learning center for this purpose.

### ***Process-oriented Experiential Learning***

The students were well aware of the fact that if they were unable to complete all parts of their assignments, they will have to re-register. Since most of their online activities concerned completion of the assignments, we found that counseling and other important features of the online learning center revolved around assignments and their evaluation. The assumption on the part of both the students and the faculty was heavily process-oriented in the sense that we believed, almost passionately, that most learning would take place during the process of online completion of assignments. This is why our analysis of the students' activities is centered on this learning process. As explained earlier the aim of this learning process is to inculcate the spirit of participatory approach in all that the PGCMMR students do or plan to do in the area of resettlement and rehabilitation of those displaced by development projects so that the displaced persons too become a part and parcel of the development process. Any monitoring and evaluation of the program has to be judged in the light of this objective of the programme. We present here four specific components of the learning process for discussion.

***Participation in Discussion Forum (PDF):*** The problem to crop up first was when students tried to submit their answers to PDF of the first course. They found it difficult to negotiate the various steps after accessing the website. Most of those students who had the experience of using the Internet for e-mail only could not even download and upload the text. During the orientation programme that took place a week before the start of their six-month cycle of the programme, the mentors had explained online each step and the same was available to them to refer to at the orientation button of the menu. Learning online through reading the text on the computer screen is however not yet a routine matter for many of our students.

***Lesson 1: Online orientation for online courses is not suitable, when most of the learners are new to the system of teaching and learning. Prefer face-to-face contact for orientation of online learners.***

Only five students with prior experience of online learning were able to successfully submit the answers and they pointed out that our website design provided the support for answers with 2000 characters only and this was grossly inadequate. It was then expanded to 8000 characters -- a maximum allowable SQL limit. Two learners who had basically prepared their answers after cut and paste from different sources were unable to upload their answers which had more than 13000 characters. In short, most students were complaining.

***Lesson 2: Do not get restricted by technical features. Find solutions to enable learners to express themselves.***

In addition, the trouble was shooting up in another direction too. The students included tables, charts and other graphics in their answers while our format allowed text only. Those who had prepared answers with great care and hard work were really bitter that they could not upload their answers. They felt let down. Another three students locked their answers with messages to mentors in the answer windows. We thought that our

experiment has failed and we are no good at online learning exercise. At this stage a discussion of the faculty with the technical team was organized. The faculty concurred with the students in their demand of more space for their answers and facility of including tables, charts etc. As a result of the discussion changes were made to allow for the students to prepare their answers in either text or words files and upload the same on the site directly. This allowed them to save their answers on their local machine or any other media like floppy drive and submit the answers by uploading their files. Each file got a name by default as per programme session/ course ID/ group ID/ student ID. In addition, the student could now download all answers of her/ his group members on her/ his machine and read/ evaluate them offline. This facility reduced the Internet time spent by each student. We could also preserve the format of the answers submitted by students.

***Lesson 3: Never underestimate the creativity of learners. Provide all possible features to prepare assignments.***

The mentors were also happy with the changes as these allowed them to download all the answers and evaluate them at their pace and place. The above facilities assumed availability of resources like Microsoft office with all students in the group. The next major set of problems cropped up because of our assumption that all students are equally keen to participate in the exercise of sharing their views with others. Some students did not participate and provided their comments on answers of fellow students. They simply submitted their answers and were happy to receive comments by others. This situation created anomalies and the process of learning from each other could not take place. There were always one or two students left out with no comments on their answers and they had no input from fellow learners that would help them to revise their first answers and submit the final version. In order to solve their problem, we tried the ideas of swapping answers from other groups, or use the evaluation of answers provided by other groups, or ask the mentor to provide comments. In the end, we found that the least complicated process was to ask the mentor to check if all students received comments from fellow-students. In case there was any one left out, the mentor was to provide comments that would help the learner to prepare the final answer. So far this method is working quite satisfactorily.

***Lesson 4: Mentors be proactive and provide continuous guidance to learners. They need to motivate learners to complete all the requirements of the course. Some learners would not complete the requirements and have to be reminded often.***

***Computer-marked Assignments:*** Regarding the computer-marked assignments (CMAs), the students asked for more time as they found that participation in discussion forum took up a good deal of time. They had to write their answer and read answers of all other students of their group and then write their comments on those answers and finally re-write or revise their own answers. The mentors agreed with this observation and the 'last dates' for CMAs of different courses were modified to just one date in the last week of the six-month session for submission of answers to all CMAs.

***Lesson 5: Give enough time to the learners to study and answer. Do not overload them.***

In two cases, the students brought to our notice certain inaccuracies in the CMA questions. Those were corrected immediately and the students attempting those questions got full marks irrespective of their right/ wrong answers. This led the faculty to once more revise all questions in the CMA question bank.

***Lesson 6: Double check the accuracy of the content. Don't wait for learners comment to rectify errors.***

Two students from one region tried to play with the system and get all answers to CMAs right. In the process they found themselves losing out on the number of questions available to them. They complained that there was something wrong with the way CMAs have been designed because they were getting less number of questions. The system was fool-proof to avoid cheating by the learners. The problem as reported by the learners was due to their attempt to use unfair means to do the exercise twice.

***Lesson 7: Develop secure systems to avoid unfair means.***

***E-counselling:*** Since all students participating in online orientation program had used the social chat button for interacting with each other, they accessed social chat for e-counselling session. But the website had another space provided for e-counselling and the mentors had specifically requested the students to click the e-counselling button at the scheduled time and date. But the majority got to social chat and complained that the mentor did not login. The mentor had to only interact with one or two students who had accessed the right button. The experience of the first e-counselling session for both students and mentors was quite discouraging and frustrating. One mentor had requested all students in her group to post/ e-mail her their queries in advance so that they could have a meaningful discussion during the counseling hour. She found that no student had taken up her suggestion. In the next session, she had again made the request but did not receive any response. So she selected topics for discussion and informed her group members to come prepared for discussions around those topics. This strategy worked better as the students felt that they were able to clarify some of their doubts. Another mentor found that two serious students had a line of queries and the one-hour time of e-counselling session was inadequate for this purpose. She took recourse to explaining the problems and helping the students through e-mail. As a result many students made it a habit to raise questions through e-mail only. This practice reduced the attendance of students in subsequent e-counselling sessions. Since most students of PGCMRR are actually those already in jobs and they do not have much time to spare it has not been possible to get all students come online at one point of time. The purpose of e-counselling in our case is not one to one interaction between the mentor and the learner. The purpose is to carry on group discussions among the members of a learning community. This aim of e-counselling was not realized during the four e-counselling sessions of July-December 2001 cycle of the program.

***Lesson 8: Don't expect all learners to participate actively in synchronous sessions. Remind learners of the e-space and time of the synchronous meeting. Prepare agenda for discussion and circulate in advance.***

***Lesson 9: Mentors require specialized training to handle synchronous sessions. Not all teachers can be suitable e-mentors. It requires a different skill set to organize, facilitate and coordinate the discussion online. Offline email based discussion is OK. But the synchronous discussion need to be focused and requires proper time management.***

The learners use e-counselling for airing their complaints about problems like non-availability of the program's CDs etc. contrary to the purpose to discuss R & R-related problem-solving exercises/ quiz during e-counselling sessions. During the current cycle (January-June 2002), the website has a helpline button for their day-to-day problems relating to accessing the different parts of the website. The helpline is available for two hours on five days of the week whereby a technical person is available online for solving students' problems relating to negotiating the website. This means that e-counselling time is then reserved for contents-based discussions. The changed format may provide better interaction and therefore more motivation to students to participate in these sessions. The mentors are of the opinion that e-counselling sessions should not be used for one-to-one basis interaction as this takes place in any case through e-mail. Students are constantly sending e-mail to their mentors and finding this means to be very satisfactory in their individual learning.

***Lesson 10: Provide continuous online live help to learners. E-mail is good for one-to-one problem solving.***

***On-line supervision of Project Work:*** In cases where students have requested their mentors to act as their supervisor, both personal and online contact between the two has so far provided adequate level of supervision of the Project Work. Since not a single student has yet submitted her/ his Project Work Report, it is not possible to judge beforehand how sensible this mode of supervision has been from the point of view of successful completion of the program. About achieving the goals and objectives of the programme of study itself, we need to look at the performance of PGCMRR learners during their involvement in R & R related activities. This would be possible only through follow-up of the learners after the programme. We are developing a framework for analyzing the impact and to find out the success of the program in terms of its objectives of participatory development.

From January 2002 the programme is also available in traditional distance education mode to make it accessible by those who cannot reach the Internet. For January-June 2002 cycle both online and offline students have registered for the programme.

### ***Conclusion***

This pilot project of introducing an online program of study in social sciences has brought before us both our own naiveté about online learning processes and a variety of problems faced by the learners. It is only through the process that we are able to

recognize the possible pitfalls and their remedies. The faculty as well as the students has been constantly revising their positions and views regarding the subject of study and also ways of studying it. Perhaps this is all that lifelong learning is about and during its course we can only learn more. With the hope of improving both contents of the course material and methods of learning them we intend to carry on our online learning system.

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