



Indira Gandhi National Open University  
School of Education

MES-035  
PROJECT MANUAL



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“शिक्षा मानव को बन्धनों से मुक्त करती है और आज के युग में तो यह लोकतंत्र की भावना का आधार भी है। जन्म तथा अन्य कारणों से उत्पन्न जाति एवं वर्गगत विषमताओं को दूर करते हुए मनुष्य को इन सबसे ऊपर उठाती है।”

- इन्दिरा गाँधी

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*“Education is a liberating force, and in our age it is also a democratising force, cutting across the barriers of caste and class, smoothing out inequalities imposed by birth and other circumstances.”*

- Indira Gandhi

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**Post Graduate Diploma  
in  
Educational Technology  
(PGDET)**

**Course Code: MES-035**

**MANUAL FOR  
PROJECT WORK**



**School of Education**

**Indira Gandhi National Open University**

**Maidan Garhi, New Delhi-110 068**

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### Acknowledgement

The draft project manual was improved with the help of the suggestions received from the following experts:

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## MESSAGE FROM THE COURSE COORDINATORS

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Dear Learner

There are five courses in the programme, Post Graduate Diploma in Educational Technology (PGDE1). The programme is of 30 credits with five courses of six credits each. At IGNOU, a credit requires 30 hours of academic work relevant to the course. The first four courses of PGDET programme are mainly theoretical in nature, while the fifth Course is the 'Project'. **It is therefore, an integral component of the programme PGDET.**

The project attempts to provide you with an opportunity to put into practice the theoretical concepts enunciated in the first four courses and also suggests a mechanism for practising the necessary skills. It has been designed in such a way that there is an array of activities related to each of the theoretical courses. Each activity has been assigned credits that range from half to three. This has been done on the basis of the estimation of the hours that would be required to complete an activity. This manual has been developed to provide you with the details of the activities comprising the project work as well as to guide you in carrying out your project work. Therefore, be sure to read this manual carefully before you initiate your work.

Wishing you all the best,

**Members of the PGDET Course Team**

# CERTIFICATE OF ORIGINALITY

This is to certify that the project work submitted to the School of Education, Indira Gandhi National Open University, in partial fulfillment of the requirement for the award of Post Graduate Diploma in Educational Technology is an original work and it has not been submitted earlier to any other institution.

**Signature of the Student**

**Name of the Student.** \_\_\_\_\_

**Enrolment No.** \_\_\_\_\_

**Address:**

**Date:**

**Place**

Course	Year/Level
MES-031 (ET - Overview)	First Year
MES-032 (Introduction to ET)	First Year
MES-033 (ET - Technology)	First Year
MES-034 (Design of ET)	First Year

# FREQUENTLY ASKED QUESTIONS

A list of some of the frequently asked questions and their answers has been provided for your convenience.

- **How would the project work be useful to me?**

The project work will enable you to:

- put into practice the knowledge you have gained from the theoretical courses;
- develop skills related to educational technology; and
- demonstrate the ability to integrate technology into educational processes.

- **How do I select activities for the project work?**

There is flexibility as far as the choice of activities is concerned. Firstly from the list of activities for a course, you may select any activity(s). Secondly from which course, you would choose activities with greater number of credits also depends on you. But the only condition is that your choice must cover activities worth at least one credit from each course.

- **What about the activities with half or one and a half credit?**

There are some activities worth only half a credit, while there are some with one and a half credits. You may opt for another such activity worth half or one and a half credit from the same or different course to make it a whole.

- **How many activities do I have to undertake?**

The number of activities is not important. It is the credit that matters. You may undertake as few as four activities, one from each course, provided their credits when added equal six. You have to undertake activities worth 6 Credits covering one credit worth of activity from each of the four courses and remaining two credits from the course(s) of your choice. This is to ensure that you gain practical experience for all the theoretical courses. This is depicted through the following table (Table 1):

Course	Credit for Activities
MES-031 (ET - An Overview)	Minimum 1 and maximum 3
MES-032 (Communication and Information Technology)	Minimum 1 and maximum 3
MES- 033 (Computer Technology)	Minimum 1 and maximum 3
MES-034 (Designing Courseware)	Minimum 1 and maximum 3

- **Will the activities require me to visit other institutions?**

Yes, there are some activities that may require you to visit educational institutions/training centers/recording studio/printing press, etc. You should seek permission from the authorities before you start your work in any of these places. You should try to convince the authorities about the objectives of your study. Your student's Identity Card and a letter from our end, addressed to the authorities concerned, enclosed in this manual may help you. .

- **How will I get the guidance as to the requirements of a particular activity?**

This manual has been designed not only to provide you with a list of activities for each course but also to guide you while you carry out an activity. Your role in each activity has been spelt out to give you a clear idea of what is expected of you. Since the activities are based on the theoretical courses, hence, it is highly advisable that you study the first four courses thoroughly before you undertake the project.

- **What would be the support system?**

Lists of tools and technologies and learner support system have been worked out for each activity. The desired output and the indices of assessment also have been worked out to facilitate your work. Although activities have been listed under different courses, some of them have a general nature and may pertain to more than one course of this programme.

- **Will the project work be evaluated?**

Yes, the project work would be assessed and grades will be awarded. Therefore, the project should be carried out with all seriousness. You will also have to appear at a viva on the project submitted by you. The weightage for the Project Report and other assessable products submitted is 70% while that for viva is 30%.

- **How to prepare the Project Report?**

Guidelines for preparing the report have been included within the section, 'Data Collection and Reporting'. If required by an activity, a CD of the work done should be submitted. Nevertheless it is necessary to submit a Project Report.

- **Are photographs necessary?**

Although photographs of the sites visited and other relevant aspects are not essential, it would be highly appreciable if you take photographs and include them 'in the Project Report. Be careful that you do not take photographs in areas where photography is forbidden. However, not all activities require photographs.

- **In case of any problem, whom should I contact?**

You should try to take full benefit of the academic counseling sessions. Apart from it, in case you have general queries about the programme or the project, you should feel free to contact the Coordinator of PGDET. For specific queries relating to activity(s) of a particular course, you may contact the respective Course Coordinator. The necessary information for this is as follows (Table 2):

Course	Telephone	Postal Address	Email
Course 1, MES-031	011-29535519	School of Education, IGNOU, Maidan Garhi, New Delhi -110068	nkdash@ignou.ac.in
Course 2, MES-032 & Course 4, MES-034	011-29535519	-do-	sbose@ignou.ac.in
Course 3, MES-033	011-29535519	-do-	sharmacb2000@yahoo.com

- **Are there any special guidelines for preparing the Project Report?**

In this connection we would like to tell you that **it is important for you to be careful about the following points:**

- The Project Report should comprise the reports of all the individual activities carried out by you.
- You must prepare two copies of the Project Report and send only one for evaluation. **You must keep a photocopy of the Report with you.**
- The project report you send for evaluation should have proper binding.
- The pages should be numbered.
- The report should be printed with double spacing in A 4 sheets.
- If CD/DVD/transparencies/flip charts are sent, the same should be packed properly so that they are not damaged in transit. **It would be prudent to preserve a copy of the item(s) sent.** Even if these materials are sent, be sure to prepare a report pertaining to the activities taken up. Mention in the Project Report any material (CD /transparencies/flip charts) you send along with it
- It is very important that you carry out your project individually and independently.
- Any project found to be done collectively by 'two or more persons or copied from any source will be rejected
- The certificate of originality enclosed in this manual should be filled up and duly signed by you.
- Proforma for Evaluation enclosed in this manual must be filled in and attached with the project report.

- **Where should I submit the project report and when?**

For the evaluation of the Project Report you must send it at your respective Regional Centre.

For Term End Examination in June, by **30th April**

For Term End Examination in December, by **31st October**

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## **SAMPLE COVER PAGE OF THE PROJECT REPORT**

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This sample cover page will guide you in selecting the information to be included on the cover page of your project report.

### **PGDET PROJECT (MES-035)**

### **PROJECT REPORT**

Submitted to the School of Education, Indira Gandhi National Open University, in partial fulfillment of the requirement for the award of Post Graduate Diploma in Educational Technology.

**Name -**

**Enrolment Number -**

**Year-**

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**LETTER TO THE AUTHORITIES OF THE INSTITUTIONS YOU  
MAY VISIT FOR YOUR PROJECT WORK**

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**SCHOOL OF EDUCATION  
INDIRA GANDHI NATIONAL OPEN UNIVERSITY  
MAIDAN GARHI  
NEW DELHI -110068**

**Dear Sir/Madam**

The programme, 'Post Graduate Diploma in Educational Technology' (PGDET) is being offered by IGNOU through its School of Education. Educational Technology is becoming indispensable for effective teaching and learning. This programme intends to develop a workforce capable of integrating technology in teaching and training programmes. The project component of this programme intends to enable learners to work at the ground level and put into practice the theoretical concepts learnt.

In this regard your kind cooperation is solicited. Your permission to carry out the project activity in your institution will not only help the learner in successfully completing his/her project but will also contribute towards the greater cause of modernizing education. Therefore, it is requested that the bearer of this letter, who happens to be a student of the programme PGDET, of IGNOU may kindly be permitted to visit your institution for work related to his/her project. The student's identity may be verified from his/her Student's I Card.

Yours truly,

(Members of PGDET Team)

School of Education, IGNOU

## EVALUATION

The project report submitted by you would be evaluated and graded. Besides, the parameters worked out for each activity, the following criteria would guide the process of assessment.

- Originality
- Logical presentation of the content with reference to:
  - Objectives
  - Introduction
  - Format of the report
  - Presentation
  - Communication of ideas and coherence
  - Clarity of language
  - Creativity
  - Inferences/Conclusions (if required)
- Inclusion of photographs to depict the places visited ( wherever required)
- Other relevant parameters unique to an activity.

### Grading

Following assessment, the project report would be graded. The grading would be on a five point scale from A-E and would be interpreted in the following manner (Table 3):

GRADE	INTERPRETATION	POINTS
A	Excellent	5 (Range: 4.5 & above)
B	Very Good	4 (Range:3.5- 4.49)
C	Good	3 (Range: 2.5 -3.49)
D	Satisfactory	2 (Range: 1.5- 2.49)
E	Unsatisfactory	1 (Range: 0-1.49)

The grades assigned to the report and other assessable products (if any) for the individual activities will be converted into their corresponding points. The average of the points will determine the grade for the project. For instance, if the grades obtained for the various activities performed by a learner are A, C, C, D & E, the sum of the points will be  $5 + 3 + 3 + 2 + 1 = 14$  (refer Table 3). The average will be  $14/5 = 2.8$ , i.e. C Grade. The project Report along with other assessable products submitted has 70% weightage while viva will have 30% weightage. One has to secure at least C Grade in the project report for passing. Similarly one has to get at least C grade in viva to clear it.

# PROFORMA FOR EVALUATION

## PROJECT REPORT -PGDET

Course : Project ( MES-035)

Enrolment No.: .....

Programme Study Center: .....

Regional Centre: .....

Name : .....

Postal Address: .....

.....

EmailID: .....

Telephone No .....

Serial No.	Title of the Activities	Course

Signature of student

Date .....

Use an extra sheet if needed to provide the necessary information.

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## DATA COLLECTION AND REPORTING

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In the next section the activities comprising the project have been listed. Some of the activities would require you to collect data, analyze and interpret them. The method of carrying out these activities could be similar to a research albeit, on a small scale. How to carry out these activities? This section includes a brief discussion on these aspects. The scope of discussion has been restricted to that required for the activities included. **You are advised to refer to books on Research Methodology to gain a better understanding of these aspects.**

### Methods and. Tools for Data Collection

The methods and tools used for data collection (as required for the activities) shall be discussed now.

#### Sampling

Data collection is required for drawing inferences for the study being carried out. Some of the activities included in this project will require data collection but from whom will you collect data? Sampling is required because you cannot collect data from the entire population. Sampling helps us in getting a relatively small number of individuals units (individuals/objects/events) from whom data is collected to infer about the population from which it was selected. Sampling procedures thus help us to generalize about the population. How can you sample the population? There are many techniques of sampling as you would be studying in Unit 12 of the Course MES-034. However, in the activities included, you have been suggested to adopt random sampling technique which has also been discussed in this unit. As you would be carrying out several activities, hence, the sample size suggested for most of the activities is small. The sample size will therefore come in the way of generalization. Nevertheless, you would get the experience of sampling, data collection and drawing inferences for the sample selected.

#### Tools for data collection

There are many types of tools for collecting data. But the activities included in your project require mainly questionnaires, observation, interview schedule and achievement test. Using achievement tests for data collection has been discussed in Unit 11 of the Course MES-034. How to prepare a blue print for it has also been discussed in this unit. You will read about some of these tools in Unit 12 of the Course MES-034. Some tips to develop questionnaires, observation and interview schedule are as follows:

**Questionnaires:** A questionnaire is a tool for data collection that requires the respondents to respond to the questions or statements included, in writing. Questions/statements in the questionnaire could be of two types open and closed. Closed items offer limited number of options to the respondents. The responses to these are to be short or the respondent may be required to select & rank items given. Some examples of closed types are as follows:

The impact of educational technology on learning is strong- Agree/Disagree

Do you watch Gyan Darshan ? - Yes/No

For the television programmes most enjoyed by you put 1, and for the next put 2 and so on:

News: .

Films: .....

Soaps: .....

Musical shows: .....

Comedy shows: .....

Other(s):..... (please specify)

Open questions require detailed answers, as for instance:

Why did you take up teaching profession?

What are the reasons for your enrolling in PGDET?

Open-ended questions can also be structured. For example:

State two points that could make the cell phone popular for educational purposes.

The questionnaire you prepare may include both open as well as closed types of questions. You should reflect upon the objectives of the study (activity) for designing a questionnaire so that it performs its intended functions. You should also ensure that the questionnaire is comprehensive i.e. it has items seeking information on all the relevant aspects. Use simple language and if you are using terms with which the respondent may not be familiar, explain them. The questionnaire should neither be too long to tire the respondent nor too brief that adequate information is not obtained (Best and Kahn, 1996). You would be collecting data faster if you can mail the questionnaire, provided your subjects can access the Internet. The following guiding principles (Table 4) (as given by Borg and Gall, 1983, cited in, Project Work, MESP-105, PGDHE Programme of SOE, IGNOU) may be useful for data collection through a questionnaire:

1.	Make the questionnaire look attractive. Use good quality paper.
2.	Organize the questionnaire into a logical sequence, so that related items are grouped together. Use headings to tell the respondent what each group of questions is about, or what their purpose IS.
3.	Layout the questions so that they are as easy to read and respond.
4.	Do not hesitate to give clear instructions where ever it may be thought necessary so that the respondents are not left wondering what they are expected to do.
5.	Use example to demonstrate how to complete items where ever you think the respondents may have a problem. (Be careful, however, that your examples do not prompt them to provide what may be perceived to be the 'correct' answer).
6.	Begin you questionnaire with the items that are most easily answered, so as to build up the respondent's confidence.
7.	Do not leave the most important questions until the end. By this time, whatever the length of the questionnaire, the respondents will be intent on finishing it and may answer them more casually.
8.	Precede the questions with a statement about the nature of the research; what it seeks to achieve and the benefits that will flow from its successful completion. Make it clear to the respondents that their co operation is vital to its success and express your gratitude for it. If it is for postal use, put the name and address of the person to whom it is to be returned. You should include a self-addressed, stamped envelope for the return mail.
9.	The statement should also give assurances to the respondents on the subject of anonymity. This is particularly important when they are asked to write their name on the questionnaire as may be the case in a postal surveyor if the researcher intends to follow up the questionnaire by interviewing a proportion of the respondents.
10.	At the end of the questionnaire express your thanks to the respondents for cooperating in the study.

(Source: Manual for Project Work, MESP-105, PGDHE Programme of SOE, IGNOU).

**Observation:** Observation is a common technique for data collection. It is a well planned and systematic activity. It can be used to collect data about the overt behaviour of an individual in a real life situation or even about the situation itself as for instance, the infrastructure of an institution, a classroom, administration in a school, etc. Before you go out for making observations, be sure about exactly what you are looking for. Note it down and analyze the constituents of the aspects you want to find out. For instance, if your objective is to observe the infrastructure for educational technology in a school, you may analyze it in terms of the rooms/hall, furniture, technological devices (types and number; hardware and software), etc. and make observations accordingly. You should record the observation at the earliest. A camera/video recording device can facilitate the process. Observation may be either participant or non-participant. Unlike participant observation in the non-participant observation, the observer (researcher) is not a part of the group and tries to ensure that his/her presence does not disturb the people observed or make them conscious.

The Observation studies checklist (Table 5, Source: Manual for project Work, MESP-105, PGDHE Programme of SOE, IGNOU) will help you in using observation as a tool for data collection.)

Decide exactly what you need to know	List all topics/aspects about which information is required.
Consider why you need this information.	Examine your list and remove any item that is not directly associated with the task.
Decide which aspects you need to investigate;	Are you particularly interested in content, process, interaction, intervention - or something else?
Request permission.	Clear official channels
Devise a suitable grid, checklist or chart	Analyze the task and note the points to be observed.
Consider what you will do with the information.	Will the data be sufficiently complete to enable you to come to any conclusion ?
Pilot your method and revise, if necessary.	Memorize categories. Devise your own system of shorthand (symbols, letters, etc.). Practice recording until you are confident you can cope up.
Prepare carefully before the observation.	Draw a plan of the room, indicating seating arrangements and layout.
Discuss where you will sit with whoever is in charge.	You should try to be as unobtrusive as possible.
Remember that no grid, however sophisticated, will tell the full story.	Try to place the event in its organizational context.
Analyze and interpret the data.	Factual statements about what has been observed are only part of the task. Consider what the facts indicate or imply.
Don't forget to thank the people who have allowed you to observe.	

**Interview:** As stated by Best and Kahn (1996), an interview is an oral questionnaire. It is usually carried out in a face-to-face situation but nowadays online interviews are quite popular. Interviews are classified as structured and unstructured. People are usually more comfortable expressing themselves orally than writing their views. Hence, it is a useful tool for data collection. Like a questionnaire an interview too may include closed and open questions. The latter generate in-depth and detailed responses.

It is important to determine the objectives of collecting data through interview and then prepare a check list pertaining to the theme on which the subjects would be interviewed so that the interview schedule does not miss any important point. The questions should also be logically sequenced. As an interviewer you should first establish rapport with your subjects, explain the objective of the interview and assure the interviewee that the data collected would be treated as confidential. You should be a good listener (an audio/video recorder may be used or notes may be taken). It is also important that an interviewer is not judgmental and is free from biases about the responses made.

**Method:** A research study can be carried out by various methods. The choice of a method depends upon several factors like the nature of the study, its objectives, time and resources available, etc. Survey is one of the methods. Some of the activities will require you to carry out a survey. A survey is a type of descriptive study that aims to describe and interpret a particular situation. It involves the clear definition of the problem (for the activity concerned), stating the objectives of the study precisely, systematic collection of data through suitable tools, organization of the data, its analysis and interpretation, drawing inferences from it and finally reporting the findings.

### **Analysis and interpretation of data**

Data collected with the help of the tools and techniques discussed so far need to be first organized systematically. You may classify data under different heads. Your data may comprise numerical figures, ratings, short and long descriptions/narrations, etc. You have to extract from them the relevant data and categorize them. Your data could be quantitative or qualitative or both.

Quantitative data emerge from responses that may be depicted numerically. They are measurable and hence can be verified. They lend themselves very well for statistical treatment. However, being close ended they do not provide in-depth information. Statistical techniques are used for organizing, analyzing and interpreting quantitative data. Techniques for determining measures of central tendency, measures of dispersion or variability; measures of relative position and measure of relationship are common. However for the purpose of this project, you may need to determine only the central tendencies, especially the mean.

Qualitative data are rich with in-depth and detailed information. The responses to open ended questions of a questionnaire or an interview schedule, like in-depth information about people, events, situations, content from documents, are some examples of qualitative data. There are various ways of analysis of qualitative data. Content analysis, is one of the methods of analyzing qualitative data. You have to sort and sift the data and determine the underlying patterns and trends. The data is thus analyzed to discover the underlying tendencies. Coding of data is often done while reading the qualitative data and a constituent paragraph/part may be coded with a suitable word. However it is not essential. The most important thing is to adopt a reflective approach so as to discover the underlying trends and may be even their causes and examine the gap between the actualities in a given situation and that in ideal situations. For instance, computers available for students not being used regularly in a school may emerge as a trend from the analysis of the data collected.

### **Interpretation of results**

Following the analysis of the data it has to be interpreted. The interpretation is based upon the critical examination of the results obtained after analysis of the data and summarizing the findings. A researcher needs to be objective while drawing inferences.

### **Conclusions and generalizations**

The sample size for the activities included being small, **generalizations cannot be made on the basis of the data collected.** Nevertheless, you may draw conclusions for the sample chosen or the situation (s) studied. You may also interpret the implications of your conclusions. As a normal practice conclusions which are inconsistent among themselves or with external realities like the known laws of nature are not acceptable.

## Preparing the Report

Reports for all the activities should be compiled and spiral /other type of binding is necessary for the report. The report may contain the following sections:

**Cover Page:** As per the sample cover page of the project report discussed earlier.

**Index:** There should be an index with the title of the activities and their respective page number.

**Introduction:** The introduction of a study should introduce the research problem (activity) in proper context. The statement of the problem is to be made and the objectives are to be stated. You may also include a concise description of your experiences while carrying out the activity, problems you encountered and benefits from the study.

**Method of the study:** In this section explain the method/process/steps adopted for carrying out the study. Some of the activities require you to collect data. In such cases the nature of the data sought, the sampling technique (if a sample is required) tools and techniques used for data collection may be included.

**Analysis and interpretation of the data:** For activities involving data collection, data analysis and interpretation are to be included in this section. For other activities this section may be omitted. The data may be presented in tabulated form along with textual discussions. Figures & tables should be numbered.

**Conclusions:** There are some activities requiring data collection and their interpretation For such activities the conclusions drawn are to be presented in this section.

**Reference section:** In this section you should include alphabetically the sources like books, journals, etc. that you may have referred to in your report.

**Appendix:** All the relevant supporting materials like copies of the tools developed for data collection, blue print for developing an achievement test, etc. are to be included.

Some activities will lead to an assessable product like a unit critical review/hard copies of power point slides, screen shots, explanatory notes, etc. You may include such work done in a separate section in your report following the section entitled Method of the study.

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## ACTIVITIES

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### MES-031: ET: AN OVERVIEW

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#### **Activity 1: Survey of ET Infrastructure in Educational Institutions (Credit: 2)**

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Visit any three educational institutions (schools or colleges). Collect information about the educational technologies available at each place and assess the extent of their use by the learners.

**Expected Learning Outcomes:** Following this activity you are expected to:

- Obtain first hand experience of the technologies commonly available in educational institutions.
- Understand the actual extent of utilization of the technologies available and the reasons thereof.

**Tools and Technologies Required:** Observation schedule, interview schedule, questionnaires;

**Your Role:** Your role would comprise the following activities:

- Seek permission from the head of the institution to carry out the study.
- Develop the necessary tools for data collection, which could be all or any of the following:
  - An observation schedule for observing and noting down your observations.
  - A questionnaire that you may distribute among the staff at the center and a sample of students visiting the center.
  - An interview schedule to interview the staff at the center and a sample of students visiting the center.
- You may take photographs.
- Collect data and analyze it.
- Draw your inferences
- Prepare a report.

**Output to be assessed:** The Report prepared.

**Assessment indicators:** The process of carrying out the survey, data collected and its analysis, depiction of the results obtained, inferences, etc.

**Learner Support:** Unit 14 (MES-031); Units 5& 7 (MES-032); Unit 14 (MES-034)

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#### **Activity 2 : Survey of ET infrastructure of Teacher Education institutions (Credit: 2)**

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Visit any three teacher education institutions and from their Educational Technology cells collect information about the technologies available there and about the extent of their use by the learners.

**Refer to Activity 1 for the Expected Learning Outcomes, Tools and Technologies Required, Your Role, Output to be assessed, Assessment indicators and Learner Support.**

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#### **Activity 3 : Survey of ET Infrastructure of Institutions Providing Training through Simulations (Credit: 1.5)**

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Visit any institution providing training through simulations with the help of computers (like those for driving cars, training pilots/medical practices.etc.) and study the training process and its benefits.

**Expected Learning Outcomes:** Following this activity, you are expected to:

- Know about the use of simulations for training.
- Appreciate the benefits of simulations for teaching and learning.

**Tools and Technologies Required:** Observation schedule, interview schedule

**Your Role:** Use Observation schedule and interview schedule for data collection. Rest of the steps are same as those mentioned for Activity 1.

Refer to Activity 1 for the **Output to be assessed and Assessment indicators**

**Learner Support:** Units 5 (MES -032).

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### **Activity 4 : Survey of Computer Facilities in Schools (Credit: 2)**

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Visit any two primary/secondary/senior secondary schools. Make sure that one of these is a private school and the other is a government school. Collect information about the infrastructure available for computer education. Find out about the nature of use of computers by teachers and children of the school.

**Expected Learning Outcomes:** Following this activity, you are expected to :

- Obtain first hand experience of the infrastructure available for using computers in a school
- Gain an idea about the actual usage of computers as tools for teaching and learning.

**Refer to Activity 1 for Tools and Technologies Required, Output to be assessed and Assessment indicators**

**Your Role:** Your role would comprise the following activities:

- Seek permission from the head of the institutions to carry out the study.
- Develop the necessary tools as mentioned in Activity 1
- Collect data on aspects like the room for computers, number of computers, their physical arrangement, networking arrangement ( local area and Internet), LCD projectors, special softwares and programmes, whether computers are used only for providing computer education or also for general teaching and learning, extent of computer assisted learning, use of computers for administration, teachers' training in operating computer, etc.
- Organize the data and analyze it.
- Draw your inferences
- Prepare a report.

**Learner Support:** Unit 14 (MES-031); Units 5, 7 (MES 032); Units 14 (MES-034)

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### **Activity 5: Survey of ET Infrastructure of an Educational Institution for Special People (Credit:1.5)**

---

Visit any institution that imparts education using advanced technologies to the physically/mentally challenged people. Collect information about the technologies available there and about their benefits for learners.

**Expected Learning Outcomes:** Following this activity, you are expected to:

- Obtain first hand experience of the types of technologies commonly available and used for imparting education to special children.

- Acquire an idea about the advantages of using technologies for educating special children.

**Tools and Technologies Required:** Observation schedule, interview schedule

**Your Role:** Data collection. Rest of the steps is same as those mentioned for Activity 1.

Refer to Activity 1 for the **Output to be assessed and Assessment indicators**

**Learner Support:** Units 6 (MES- 032)

---

### **Activity 6: Studying the Impact of ET on Learning (Credit: 2)**

---

Randomly select 10-20 learners studying in the same grade. Randomly assort them to form two equal groups. Teach a group any topic with integration of Information and Communication Technology (ICT). Teach the other group the same topic without integrating ICT. Conduct a test after teaching and compare the scores of the learners.

**Expected Learning Outcome:** Following this activity, you are expected to:

- Evaluate the impact of technology on the teaching -learning process.

**Tools and Technologies Required:** Technologies needed and other teaching aids

**Your Role :** Your role would comprise the following activities:

- Select content for teaching.
- Select appropriate technology
- Prepare an instructional strategy with topic, objectives, content to be taught and learning experiences to be provided, mode of integration of the technology (s) selected.
- Select two groups of learners randomly
- Teach one group with the help of technology and another without it.
- Prepare a blue print for a test, develop test items and set a question paper
- Administer the test
- Find out the mean score for both the groups and compare them.
- Draw conclusions as to the impact of technology on learners' achievement.
- Prepare a report as mentioned in Activity 1. The copies of the instructional strategy developed, blue print and the question paper prepared should be attached.

**Output to be assessed:** The Report prepared.

**Assessment indicators:** The process involved, presentation, inferences, etc.

**Learner Support:** Unit 2 (MES-031); Units 17, 18 & 19 (MES-032); Unit 11 and 12 (MES-034).

---

### **Activity 7: Critical Evaluation of Policy Document (Credit: 1/2)**

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Study the document pertaining to the Ministry of Information and Broadcasting Policy (2005) on Expansion of FM radio broadcasting services through private agencies. Critically evaluate it for its potential to provide educational services through private PM channels and that actually being done by the private channels.

**Expected Learning Outcomes:** Following this activity, you are expected to:

- Understand the Government Policy on expansion of FM radio broadcasting services;

- Know about the involvement of the private sector in broadcast through FM radio stations;
- Critically evaluate the implications of this policy in imparting educational services.

**Tools and Technologies Required:** Policy Document, radio

**Your Role:** Your role would comprise the following activities:

- Procure a copy of this document. You may also download it from the Internet (<http://rnib.nic.in/informationbIPOLICYIFM-PH-II-13072005.htm>). (Websites are prone to be withdrawn/changed)
- Study the policy document well.
- Prepare a critical note on the implications of this policy on educational services through radio.
- Listen to some of the government as well as private FM channels that are providing education directly or as edutainment (education as well as entertainment)
- Prepare a critical note on these services.
- Prepare a report with an introduction, objective' f carrying out the activity and a critique of the Policy and its impact and your suggestions (if any) 0 trn ve it.

**Output to be assessed:** The Report

**Assessment indicators:** Content and presentation.

**Learner Support:** You will get a list of commercial FM channels for various cities on the website: [http:// www.technomediaindia.com/clients.htm](http://www.technomediaindia.com/clients.htm). However, websites are prone to be modified or even taken off. Your radio is your best guide to tell you about th channels you get.

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### **Activity 8: Survey to D rmin t e Perception of the Public Regarding the Impact of Educational Technology (Credit: 1)**

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Conduct a survey to :find out what the general public thinks about educational technology and its impact on the society in general and on education in particular.

**Expected Learning Outcomes:** Following this activity, you are expected to:

- Know about the perceptions of the common man about the impact of educational technology on the society and particularly on education.

**Tools and Technologies Required:** Interview schedule

**Your Role:** Your role would comprise the following activities:

- Select a random sample of about 25 adults
- Develop an interview schedule
- Interview the subjects to find out their perceptions regarding the impact of communication technologies like radio, television, computer and Internet on the society and on teaching and learning. You may collect information on the following issues:
  - Types of technologies generally available for imparting education
  - Impact of Information and Communication Technology (K'T) on the society
  - Impact of ICT on formal education (education imparted through institutions on the basis of a syllabus)

- Shortcomings of imparting education through electronic media
- Digital divide ( Divide between the technological haves i.e. people able to access modern technology and the have-nots .i.e. those unable to access modern technologies)
- Any other relevant point (s)
- Collect data, organize and analyze it.
- Draw your inferences on the general perceptions on the issues which you have covered in your interview.
- Prepare a report.

**Output to be assessed:** The report.

**Assessment indicators:** Content, presentation, inferences, etc.

**Learner Support:** Unit 10, MES-031

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## MES- 032 : COMMUNICATION AND INFORMATION TECHNOLOGY

### Activity 1: Preparing PowerPoint Slides (Credit: 1/2)

Prepare between 10-15 slides for a PowerPoint presentation for teaching /presenting your views, on any topic from any unit of the course, Communication and Information Technology.

**Expected Learning Outcomes:** Following this activity, you are expected to:

- Develop the skills of preparing PowerPoint slides for the purpose of teaching/training.

**Tools and technologies required:** PowerPoint programme

**Your Role:** Your role would comprise the following activities:

- Select content from any unit of the course specified, on the basis of which you could prepare the PowerPoint.
- Study the content well and note down the important points you would like to discuss .
- Prepare the slides using the PowerPoint programme
- You may include pictures and audio (optional).
- Prepare a report. The report should also include hard copy of the slide prepared.

**Output to be assessed:** Hard copy of the slides, the CD with the power point

**Assessment indicators:** Treatment of the Content, the slides prepared, etc:

**Learner Support:** Unit 7 of the Course: Communication and Information Technology.

### Activity 2: Preparation of Flipcharts (Credit:1/2)

Select content from any area and prepare flip charts (about 10) to present the content. The flip charts should be made on A 4 size papers.

**Expected Learning Outcomes:** Following this activity, you are expected to:

- Develop the skills of preparing flip charts for teaching/training.

**Tools and technologies required:** thick papers, stationery items

**Your Role:** Your role would comprise the following activities:

- Study the 7th Unit of the course: Communication and Information Technology
- Select the content from any unit of the course: Communication and Information Technology
- Collect thick sheets of paper (A 4 size).
- Decide the text and the illustrations to be included within the charts and their organization.
- The text & illustrations may be hand made/printed.
- Prepare a report

**Output to be assessed:** The flip chart prepared and a summary of the content

**Assessment indicators:** Content selected, presentation of text and illustrations, the summary of the content, etc ..

**Learner Support:** Unit 7 of the Course: Communication and Information Technology. You may also visit websites on preparation of flip charts to know more about it.

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### **Activity 3: Preparation of flip charts and recording the narrations (audio) in CD (Credit: 1)**

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Carry out Activity 3. Record the explanation that would accompany the visuals on each chart, as an audio programme of about ten minutes duration.

**Expected Learning Outcomes:** Following this activity, you are expected to:

- Develop the skills of preparing flip charts.
- Develop the skills of making presentation with the help of flip charts.

**Tools and technologies required:** papers(A4 size), stationery items, audio recording tools and CD.

**Your Role:** Same as in Activity 2 and recording the narration explaining the content included in the flipcharts.

**Output to be assessed:** The flip chart prepared and a summary of the content. The CD with the recordings

**Assessment indicators:** Content selected, presentation of text and illustrations on the flip chart, the narration recorded, etc.

**Learner Support:** Unit 7 of the Course, Communication and Information Technology. You may also visit web sites on preparation of flip charts to know more about it.

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### **Activity 4: Preparation of Transparencies (Credit: %)**

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Select content from any unit of MES-032 and prepare transparencies (about 10) to present the content.

**Expected Learning Outcomes:** Following this activity, you are expected to:

- Develop the skills of preparing transparencies for teaching.

**Tools and Technologies Required:** Sheets for preparing transparencies, stationery items, etc.

**Your Role:** Your role would comprise the following activities:

- Study the 7th Unit of the Course MES-032.
- Select content and prepare its summary.
- Collect sheets for transparencies.
- Decide the text and the illustrations to be included within the transparencies.
- The text & illustrations may be hand made/printed.
- Prepare a report

**Output to be assessed:** The transparencies prepared and the report.

**Assessment indicators:** Content selected, summary of the content, presentation of text and illustrations, etc.

**Learner Support:** Unit 7 of the Course MES-032. You may also visit web sites on preparation and use of transparencies to know more about it.

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### **Activity 5: Preparation of Transparencies and Recording the Narrations in CD (Credit: 1)**

---

Carry out Activity 4. Record the explanation that would accompany the visuals on each transparency as an audio programme of about ten minutes duration.

**Expected Learning Outcomes:** Following this activity, you are expected to:

- Develop the skills of preparing transparencies.
- Develop the skills of making presentation with the help of transparencies.

**Tools and Technologies Required:** Same as for Activity 3.

**Your Role:** Same as in Activity 4 and recording the narration explaining the content included in the transparencies.

**Output to be assessed:** The transparencies prepared, a summary of the content and the CD with the recordings

**Assessment indicators:** presentation of text and illustrations on the transparencies, the narration recorded, etc.

**Learner Support:** Same as in Activity 4.

---

### **Activity 6: Preparing teaching aids in multiple media form (Credit: 2.5)**

---

Select topics from any area. Prepare 10 transparencies, 10 PowerPoint slides, audio visual clips (of about five minutes duration).

**Expected Learning Outcomes:** Following this activity, you are expected to:

- Develop the skills of teaching with different types of technologies.

**Tools and Technologies Required:** Sheets for preparing transparencies, stationery items, PowerPoint programme, audio/video recorder, CD, etc.

**Your Role:** Your role would comprise the following activities:

- Study the 7th and 19th Unit of the Course MES-032.
- Select content and prepare its summary.
- Prepare transparencies and power point slides
- Record suitable audio & video.
- Prepare a report and include in it a hard copy of the slides prepared

**Output to be assessed:** The transparencies, PowerPoint prepared, audio and/video clips (submitted in CD).

**Assessment indicators:** Selection of technology and its integration

**Learner Support:** Unit 7, 17, 18 &19 of the Course: Communication d Information Technology.

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### **Activity 7: Recording Technology Integrated Teaching - Learning Situation (Credit: %)**

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Visit any educational institution/training center and record with a haauy earn/camera a teaching-learning situation into which technology has been integrated. The recording may be of about 10-15 minutes duration. Describe the situation so that the audio element accompanies the video. Take close up shots of the black board and other devices used. Write an explanatory report about your production.

**Expected Learning Outcomes:** Following this activity, you are expected to:

- Know about a field situation where technology is being integrated for teaching and learning.
- Learn to record an event.

**Tools and Technologies Required:** Equipment for shooting the event

**Your Role:** Your role would comprise the following activities:

- Seek permission from the head of the institution to carry out the study.
- Select an appropriate teaching -learning situation/on going training session.
- Record the event
- Write a critical report with an introduction, objectives, the suitability of the selection of technology done by the teacher/trainer; integration of technology; impact on the learners/trainees during the session,.

**Output to be assessed:** The recording in a CD and the report

**Assessment indicators:** Audio and visuals included, perception and presentation of the situation recorded.

**Learner Support:** Units 17, 18 & 19 of the Course: Communication and Information Technology

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**Activity 8: Studying the Process of Communication (Credit: 1/2)**

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Watch four types of programmes on television. (news bulletin, soap, discussion and an educational programme) on the television on a regular basis for a few days. List the factors responsible for making the communication effective and also list the barriers in communication.

**Expected Learning Outcomes:** Following this activity, you are expected to:

- Understand the factors responsible for making communication effective.
- Identify the barriers in communication.

**Tools and Technologies Required:** Television

**Your Role:** Your role would comprise the following activities:

- Watch the television programmes attentively.
- Analyze the process of communication in terms of the factors facilitating it and those acting as barriers.
- List the strategies that have been adopted to make the communication effective.
- Write a critical report with an introduction to the work done, objectives of the work, method adopted, etc. The critique should include discussions on clarity of the message, any strategy(s) for reinforcement of ideas, organization of the content, scope for interaction, etc. Title of the programme, channel and timings should be mentioned.

**Output to be assessed:** The report prepared

**Assessment indicators:** Points covered in the critique.

**Learner Support:** Units I & 2 of the Course: Communication and Information Technology.

---

**Activity 9: Understanding the print technology (Credit : 1)**

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Collect information on the evolution of print technology. Visit a nearby printing press. Visit its constituent units and study their functioning and prepare a report.

**Expected Learning Outcomes:** Following this activity you are expected to:

- Know about the evolution of print technology
- Understand the modern mass printing process.

**Tools and Technologies Required:** Internet/library; camera

**Your Role:** Your role would comprise the following activities:

- Collect information on the evolution of print technology from a library or the Internet.
- Visit a printing press
- Seek permission to carry out your work.
- Make your notes on the process of printing .

- Take photographs if allowed
- Prepare a report with an introduction, objectives of the activity carried out and explanation of the following:
  - evolution of print technology
  - the printing process.

**Output to be assessed:** The report prepared

**Assessment indicators:** Points covered in the report

**Learner Support:** Units 9& 10 of the Course: Communication and Information Technology.

---

### **Activity 10: Visit to a recording studio (Credit : 1 )**

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Visit an audio/video recording studio. Go to the various units comprising it and study the process of recording, editing, storage and other relevant activities and prepare a report.

**Expected Learning Outcomes:** Following this activity, you are expected to:

- Understand the functioning of a recording studio.
- Compare and contrast the theoretical knowledge you have gained with your actual experience.

**Your Role:** Your role would comprise the following activities:

- Seek permission from the studio authorities
- Study the functioning within the studio and prepare notes.
- You may take photographs only after special permission to do so. However, photographs of the studio you have visited may be taken while you are outside it.
- Interview the functionaries at the various units to understand their role.
- Visit the storage and archiving units and prepare notes on the techniques used for storing, archiving and cataloguing.
- Organize the information collected and prepare a write up.
- Prepare a report.

**Output to be assessed:** The report prepared

**Assessment indicators:** Information collected and presented.

**Learner Support:** Units 13 &14 of the Course: MES 032

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### **Activity 11 : Survey to Determine the Utilization of Broadcast and Non broadcast Media of IGNOU (Credit:3)**

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Carry out a survey to determine the extent of utilization of the broadcast and non broadcast media facilities at any Study Center/Programme Study Center of IGNOU.

**Expected Learning Outcomes:** Following this activity, you are expected to :

- Know about the types of technological support used by IGNOU to impart multi media instructions.
- Understand the actual extent of usage of the technologies available.
- Find out the reasons for the utilization/under utilization/non utilization of the technology available.

**Tools and Technologies Required:** Observation schedule, interview schedule, questionnaires;

**Your Role:** Your role would comprise the following activities:

- Visit the nearest study center/programme study center of IGNOU and seek permission from the Study Center In charge to carry out the study.
- Develop the necessary tools which could be all or any of the following:
  - An observation schedule for observing and noting down your observations.
  - A questionnaire that you may distribute among the staff at the center and /a sample of the students visiting the center to collect the necessary information.
  - An interview schedule to interview the staff at the center & J sample of the students visiting the center to collect the necessary information.
- Collect data on the following aspects from the study ce-ter staff :
  - Non broadcast technologies available (cassettes and CDs ), the frequency of their utilization by the learners;
  - Broadcast technologies available -facilities for attending teleconferencing sessions and their usage by learners.
- Collect data on the following aspects from at least 50 learners:
  - Frequency of utilizing media support at the study center (Audio-video cassettes and CDs, teleconferencing facilities, etc.)
  - Type of media preferred and reasons thereof
  - Frequency of watching programmes on Gyan Darshan
  - Frequency of hearing IRC programmes of IGNOU
  - Perceptions of learners regarding relevance and quality of the programmes
  - Reasons for utilization /non utilization/moderate/rare utilization of the media support.
  - Suggestions of learners for improving the quality of educational programmes
- Organize the data collected and draw your inferences
- Prepare a report.

**Output to be assessed:** The Report prepared.

**Assessment indicators:** The process involved in carrying out the survey, data and its analysis, inferences etc.

**Learner Support:** Units 13-16 of the Course MES-032

## **COURSE 3: COMPUTER TECHNOLOGY**

Course Code: MES-033

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### **Activity 1: PowerPoint Presentation Depicting Hardware Components of a Computer Credit 1/2**

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Prepare a PowerPoint presentation depicting the various hardware components of a computer and other peripheral devices.

**Expected Learning Outcomes:** Following this activity, you are expected to:

- Know about the various hardware components of a computer and other peripheral devices.

**Tools and technologies required:** PowerPoint programme

**Your Role:** Your role would comprise the following activities:

- Study Unit 1 of the Course, MES-033.
- Prepare the PowerPoint presentation.
- You may include pictures and audio in the slides (optional)
- Prepare a report and include in it a hard copy of the slides prepared

**Output to be assessed:** CD with the PowerPoint and the Report.

**Assessment indicators:** depiction of the components, the slides prepared.

**Learner Support:** Unit 1 of the Course MES-033 & Unit 7 of the Course MES-032.

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### **Activity 2: Preparing a Handout Using any Word Processing Software (Credit ½)**

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Prepare a handout of about two pages on a topic of your choice using any word processing software.

**Expected Learning Outcomes:** Following this activity, you are expected to:

- Develop the skills of using word processing software.

**Tools and technologies required:** Programme for word processing, printer, etc.

**Your Role:** Your role would comprise the following activities:

- Select any topic.
- Collect information on the topic selected.
- Design a handout with proper heading, subheading, sections, subsections, etc.
- Use word processing software to word process the document.
- You may include necessary graphics (optional).
- For the draft prepared, perform editing for the content, language and format so as to refine it and take a printout.
- Prepare a Report.

**Output to be assessed:** The handout prepared and the Report

**Assessment indicators:** the word processing skills as reflected in the handout.

**Learner Support:** Unit 4 & 16 of the Course MES-033.

---

### **Activity 3: Developing a Brochure Using any Desktop Publishing Software (Credit ½)**

---

Prepare a brochure of two- four pages for the PGDET programme in which you have enrolled.

**Expected Learning Outcomes:** Following this activity, you are expected to:

- Develop the skills of using desktop publishing software.

**Tools and technologies required:** Desktop publishing software

**Your Role:** Your role would comprise the following activities:

- List the aspects to be included in an information brochure like objectives of the programme, the courses, the credits, duration of the programme, fees, eligibility, etc.
- Collect and compile the information on these aspects (The Programme Guide will help you).
- Conceptualize the text and graphics
- Use any desktop publishing software to prepare the document.
- Prepare a Report. Include in it a hard copy of the document along with the screen shots.

**Output to be assessed:** The brochure prepared and the Report.

**Assessment indicators:** The layout of the document, the skills of using the software, as reflected in the brochure, etc ..

**Learner Support:** Unit 4 of the Course MES-033.

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### **Activity 4: Reviewing Websites of Educational Institutions (Credit:1)**

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Review websites of ten educational institutions and identify at least one area in each that needs improvement.

**Expected Learning Outcomes:** Following this activity, you are expected to:

- Develop the skills of browsing the internet.
- Going through a website and critically evaluating it.

**Tools and technologies required:** Computer with Internet facility.

**Your Role:** Your role would comprise the following activities:

- Visit the web sites of any ten educational institutions.
- Study the home page and the web pages of each website.
- Critically evaluate the website along dimensions like information (adequacy, accuracy, whether updated or not), links (whether they are annotated, functional, well organized, ease of navigation), colour scheme, graphics, etc.
- Think about and list the aspects that need to be improved.

- Prepare a Report with an introduction to the activity carried out, objectives and the critique of the web sites evaluated.

**Output to be assessed:** Evaluation carried out and list of the points that need improvement with justification.

**Assessment indicators:** The skills of browsing and using websites and evaluating them.

**Learns- Support:** Unit 7 &10 of the Course MES -033. You may also visit websites on 'evaluation of websites'.

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### **Activity 5: Create an e-group for Supporting Collaborative Learning (Credit 1)**

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Create an e group for supporting collaborative learning and invite other learners to join the e group. Submit the screen shots of the different pages of the group.

**Expected Learning Outcomes:** Following this activity, you are expected to:

- Use the popular technique of virtual collaboration.
- Develop the skills of creating e group.

**Tools and technologies required:** Computer with Internet facilities; an email ID of your own and that of your group members.

**Your Role:** Your role would comprise the following activities:

- Have your own Email account
- Prepare a list of people who would be the members of your e group and obtain their email ID.
- Develop the e group.
- Prepare a Report.

**Output to be assessed:** The Report and the screen shots of the different pages of the group.

**Assessment indicators:** The screen shots of the different pages of the group and the narration of the steps taken towards the creation of the group.

**Learner Support:** Unit 6 of the Course MES-033. You may take online help like that being currently provided by Yahoo Groups (yahoo.com) that facilitates the creation of e groups.

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### **Activity 6: Preparation of PowerPoint with Text, Audio and Graphics (Credit 1.5)**

---

Prepare a PowerPoint presentation with text, audio and graphic on any topic for any level of education /training.

**Expected Learning Outcomes:** Following this activity, you are expected to:

- Develop the skills of preparing power point slides with multimedia format.

**Tools and technologies required:** Computer with power point programme, suitable audio file, and graphics

**Your Role:** Your role would comprise the following activities:

- Select any topic and collect information on it.

- Select suitable graphics and arrange audio files.
- Prepare the PowerPoint presentation by inserting text and importing the audio files and graphics.
- Prepare a Report. Include in it a hardcopy of the slides prepared.

**Output to be assessed:** CD with the PowerPoint and the report.

**Assessment indicators:** The text, audio and visuals

**Learner Support:** Unit 4, 13 of the Course MES-033.

### **Activity 7: Using the Internet for Collecting Information (Credit 2)**

Identify anyone of the following topics: Global Warming/Nuclear War/Rain Forests/Gender Parity. List 25 websites on the topic you have chosen and rate them in order of quality of content

**Expected Learning Outcomes:** Following this activity, you are expected to:

- Develop the skills of using the internet as a source of information.

**Tools and technologies required:** Computer with Internet facilities

**Your Role:** Your role would comprise the following activities:

- Select a topic
- Visit 25 websites on the topic chosen.
- Evolve a set of common criteria on the basis of which you would rank the web sites
- Carry out the ranking.
- Prepare a Report. Include in it the websites visited and their critique.

**Output to be assessed:** The report

**Assessment indicators:** The web sites visited, the criteria evolved for ranking them

**Learner Support:** Unit 7 of the Course MES-033.

### **Activity 8: Development of a multimedia lesson (Credit: 3)**

Convert any unit of this programme into a multimedia lesson.

**Expected Learning Outcomes:** Following this activity, you are expected to:

- Develop the skills of preparing content in multimedia

**Tools and technologies required:** Computer and necessary tools for creating multimedia.

**Your Role:** Your role would comprise the following activities:

- Select a unit from this programme and chisel out the portion suitable for a multimedia lesson
- You may rewrite it for presenting it as a multimedia lesson.
- Determine which part goes in which medium
- Develop a story board
- You may develop an exercise for assessment of learners (optional).

- Use appropriate tools for developing the multimedia lesson.
- Copy the work done in a CD.
- Prepare a Report.

**Output to be assessed:** The CD with the unit as a multimedia lesson and the Report.

**Assessment indicators:** The choice of content and media, the overall presentation, etc.

**Learner Support:** Unit 12, 13, 19 of the Course Computer Technology; Unit 3 and 8 of the Course MES-032.

### **Activity 9: Creating a Webpage (Credit 1.5)**

Create a webpage of your own using HTML editor or any other tool. Submit a copy on a CD.

**Expected Learning Outcomes:** Following this activity, you are expected to:

- Develop the skills of preparing a web page.

**Tools and technologies required:** Computer and other necessary tools

**Your Role:** Your role would comprise the following activities:

- Conceptualize the text with suitable title, sections and subsections, structured content, graphics, etc.
- Use the HTML editor or any other facility
- Develop the web page
- Prepare a Report. Include the screen shot (s).

**Output to be assessed:** CD. with the web page created.

**Assessment indicators:** The content, its organization, design of the web page, etc.

**Learner Support:** Unit 8 & 9 of the Course Computer Technology.

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## **MES - 034: DESIGNING COURSEWARE**

### **Activity 1: Designing Courseware for Print Medium (Credit:2)**

Design and develop courseware (one unit/ a chapter of about 1500 words) to be delivered through the print medium. Select the content from any area and level (secondary onwards) of education/ training.

**Expected Learning Outcomes:** Following this activity, you are expected to:

- Be able to design courseware for the print medium

**Tools and technologies required:** Paper, necessary stationery items.

**Your Role:** Your role would comprise the following activities:

- Select your target group and specify the profile of the target group.
- Select suitable content for the courseware
- Select suitable title

- Formulate instructional objectives
- Structure the content into sections and subsections and organize it.
- Write the courseware inserting suitable illustrations
- Devise strategies for building scope for interaction and interest of learners.
- Prepare a Report. Include the unit (courseware) developed in it.

**Assessment indicators:** Content, language, presentation, illustrations, assessment tools, etc.

**Learner Support:** Units 1 of the Course, MES 034.

### **Activity 2: Designing and Evaluating Courseware for Print Medium (Credit:3)**

Carry out Activity 1 and get the courseware evaluated by five experts (teachers at senior level/ course designers) and collect feedback for improving the courseware. Revise the courseware in the light of the feedback collected

**Assessment indicators:** Same as in activity 1 and the feedback collected and the revised courseware.

**Learner Support:** Units 1,9,10 &11 of the Course, MES 034.

### **Activity 3: Survey of ET Infrastructure in Educational Institutions (Credit: 2)**

#### **Activity 3: Survey for determining audience profile (Credit %0)**

Suppose you intend to develop a courseware for a particular group of learners. Carry out a survey to determine the audience profile

**Expected Learning Outcomes:** Following this activity, you are expected to:

- Understand the process of determining the audience profile for a courseware to be developed.

**Tools and technologies required:** Questionnaire, interview schedule, recording instruments (optional)

**Your Role:** Your role would comprise the following activities:

- Select an age group for whom the courseware is to be developed.
- Develop the necessary tools which could be questionnaire &interview schedule
- Select a sample of about 20 people
- Collect data on their social and educational backgrounds, educational needs, interest, etc.
- Organize and analyze the data collected.
- Draw your inferences
- Prepare the audience profile based on your inferences.
- Prepare a Report.

**Output to be assessed:** The report prepared

**Assessment indicators:** The profile developed.

**Learner Support:** Units 5, 7 ~12 of the Course - M. S 034 .

#### **Activity 4: Preparation of Storyboard (Credit: 1)**

Select the content from any area and level (secondary onwards) of education/training and prepare a storyboard for a multimedia CD ROM. The duration of the programme should be of 15 minutes.

**Expected Learning Outcomes:** Following this activity, you are expected to:

- Develop the skills of preparing a story board.

**Tools and technologies required:** cards/sheets of paper, etc.

**Your Role:** Your role would comprise the following activities:

- Collect cards/thick sheets of paper.
- Select content
- Decide which part of the content would be in which medium (text, audio, video, animation, etc. and also about the media combinations as for example audio explaining a still picture or an animation)
- Segregate and note down the elements of the content into text, audio, video, graphics and still photos and decide when, where and in which combination you would put them
- Decide the colour schemes
- Prepare a flow chart and decide the points of navigation and the linkages
- Develop the constituent cards of the story board and arrange them in an appropriate sequence
- Reassemble the above into a story board
- Prepare a Report. Include in it a summary of the content, the Instructional Design, the justification for the choice of the media and attach the cards prepared as a story board.

**Output:** The story board and a summary of the content.

**Assessment indicators:** Content selected, media election, the constituent parts of the story board, their order and arrangement

**Learner Support:** Unit 3 and 8 of the Course: MES-034. You may also visit websites on preparation of story boards to know more about it.

#### **Activity 5: Script Writing for Audio (Credit ½)**

Select suitable content and write a script for audio for an educational programme of about 10 minutes duration.

**Expected Learning Outcomes:** Following this activity, you are expected to:

- Develop the skills of script writing for audio.

**Tools and technologies required:** Paper and necessary stationery items.

**Your Role:** Your role would comprise the following activities:

- Select content suitable for audio.
- Select a target group for whom the course is intended and specify the learner profile.
- Select format for presenting the content

- Develop the script. Mention the sound effects and the type of music you would use and the points at which they would be used.
- Get the script evaluated by two experts (media professionals) and collect feedback.
- Prepare a Report. Include summary of the content, the justification for the choice of the medium, the script prepared, feedback from experts and the revised script.

**Output:** The draft script, feedback and the revised script (mention the name and contact address of the evaluators)

**Assessment indicators:** Content selected, the script developed.

**Learner Support:** Unit 5, 6, 9, 10 of the Course MES-032.

### **Activity 6: Script Writing for Video (Credit: 1/2)**

Select suitable content and write a script for video for an educational programme (any topic) for a video programme of about 10 minutes duration.

**Expected Learning Outcomes:** Following this activity, you are expected to:

- Develop the skills of script writing for video.

**Tools and technologies required:** Paper and necessary stationery items.

**Your Role:** Your role would comprise the following activities:

- Select content suitable for video
- Select format for presenting the content
- Develop the script and the rest is same as that for Activity 5.

**Output and Assessment indicators:** Same as that for Activity 5.

**Learner Support:** Unit 5, 8, 9, 10 of the Course- MES-034 ..

### **Activity 7: Evaluation of Courseware in Different Media ( Credit 2)**

Select programmes available in different media (print - a unit of PGDET programme; audio-. A radio (educational) programme, video -a television programme (educational) and a multi media educational programme in a CD/DVD). Evaluate the programmes using appropriate method and criteria.

**Expected Learning Outcomes:** Following this activity, you are expected to:

- Develop the skills of evaluating courseware.

**Tools and technologies required:** Paper and necessary stationery items.

**Your Role:** Your role would comprise the following activities:

- Select coursewares in different media as mentioned .
- Read/Listen/watch the courseware carefully. Evaluate them along the following dimensions:
  - Print-content selection, title, language (clarity, lucidity); adequacy and authenticity and relevance (to learner's needs) of the content, structuring, sequencing and organization of the content, scope for interactivity, assessment tools, introduction, conclusion, illustrations, etc.

- Audio - content selection, title, language (clarity, lucidity); adequacy and authenticity and relevance (to learner's needs) of the content, structuring, sequencing and organization of the content, visual treatment, interactivity, assessment tools, introduction, format, sound effects, etc.
- Video- content selection, title, language (clarity, lucidity); adequacy and authenticity and relevance (to learner's needs) of the content, structuring, sequencing and organization of the content, interactivity, assessment tools, hooking, sign post, conclusion, format, audio (quality and sound effects), visuals (relevance, colour scheme, etc.).
- Multimedia programme: similar to audio and video mentioned above and scope for interactivity, assessment and provision for feedback, linkages, navigation facilities, access whether (random or not), etc.
- Prepare a report.

**Output:** The report with information on the dimensions specified for this activity.

**Assessment indicators:** Evaluation report for each programme chosen. Give the details of the courseware/programme used for this activity for their easy identification. For print, specify the title of the unit and the course. For audio and video, mention the programme title, the date and time of broadcast and the channel. For multimedia CD, the title, the company manufacturing it, etc.

**Learner Support:** Unit 5-11 of the Course-MES-034.

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## RESOURCES

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We have included a list of resources which you may refer to for information on educational technology. However, it is an optional activity.

### Books

Baird, J. (2003). 'Using interactive video- based multimedia to scaffold learning in teacher education', in S. Naidu, (ed.), *Learning & Teaching with Technology Principles and Practices*. London: Kogan Page.

Bates, A. W. (2005). *Technology, E-Learning and Distance Education*, 2nd Edition, London: Routledge Falmer.

Beverly A., (2000 ). *Instructional and Cognitive Impacts of Web Based Education*, New York: Idea Group Publishing.

Brock, P. A (1994). *Educational Technology in the Classroom*. Englewood Cliffs, NJ: Educational Technology Publications.

Cox, M. & Webb, M. (1992). 'Developing Software and Curriculum Materials: The Modus Project', in Mella, H Bliss, J. Boohan, R Ogborn, J. & Tompsett, C.(eds.), *Learning with Artificial World: Computer Based Modelling in the Curriculum*. London: Falmer Press.

Dexter, S. (2002). *E- Tips Educational Technology Integration and Implementation Principles*, in P. Rogers (ed.), *Designing instruction for technology-enhanced learning*. New York: Idea Group Publishing.

Freeman. R & Lewis, R (1998). *Planning and Implementing Assessment*. London: Kogan Page.

Maier, P., Barnett, L. Warren, A, Brunner, D. (1998). *Using Technology in Teaching and Learning*. London: Kogan Page.

Gay, R L. (1991). *Educational evaluation and measurements*. Singapore: MacMillan Publishing Company.

Harasim, L. (1990), 'Online education: An environment for collaboration and intellectual amplification', in L. Harasim, (ed.) *Online Education: Perspectives on a New Environment*, New York: Praeger Press.

Heinich, R, Molenda, M., Russell J.D. & Smaldino, S.E. (1996). *Instructional media and technologies for learning*. New Jersey: Prentice Hall.

Hertzke, E. R & Olson, W. E. (1998). *TQE, Technology and Teaching*. California. Corwin Press Inc.

Inglis, A, Ling, P. and Joosten, V. (1999). *Delivering digitally managing the transition to the knowledge*. London: Kogan Page.

Jonassen, D.H. (2000). *Computers as Mindtools for Schools*. NJ: Merrill, Upper Saddle River.

Kawachi, P. (2005). 'Computers, multimedia and e-learning', in V.v. Reddi and S. Mishra (Eds.), *Educational media in Asia*. Vancouver: Commonwealth of Learning.

Kumar, K.L. (1996). *Educational Technology*. New Delhi: New Age International Publishers.

Laurillard, D. (1993). *Rethinking University Teaching - a framework for the effective use of Education Technology* - London: Routledge

Maier, P., Barnett, L., Warren, A, Brunner, D. ( 1998). *Using Technology in Teaching and Learning*. London: Kogan Page Ltd.

Marx, G (2006). *An overview of sixteen trends: Their profound impact on our future*.

*Implications for students, education, communities, and the whole of society*. Arlington, VA: Educational Research Service.

Paine, N. (2003). 'Living and learning in the information age: From the school to e-school to no school?' in J. Bradley, (Ed.), *The open classroom*. London: Kogan Page.

Panda, S. (2006). *Types of Media and Technology*, STRIDE Handbook 7, Media and Technology Distance Education, New Delhi: STRIDE, IGNOU.

Porcival, F. Ellington. H.I. and Race, P. (2003). Handbook of Educational Technology (3rd edition.), Lonuc., - Kogan Page.

Reddi, U. V, S. (2003). Educational Multimedia: A Handbook for Teacher-Developers. Commonweann buuWillonal Media Centre for Asia, New Delhi, India [[http://www.cemcaorglEMHandbook/EdMul\\_Fullpdf](http://www.cemcaorglEMHandbook/EdMul_Fullpdf)].

Rogers P.L., (2002). Designing Instructions for Technology - Enhanced Learning. New York: Idea Group Publishing.

Romiszowski, A.J. (1988). Designing Instructional Systems (2nd edition.), London, Kogan Page.

Stiles, M. (2006). 'Embedding E- Learning in a Higher Education Institution', in S. T. Nguyen & D. S. Preston, (Eds.) Virtuality and Education a Reader. New York: Rodopi.

Venkataiah,N.(1996) Educational Technology, New Delhi: APH Publishing Corporation.

### **Books on Research Methodology**

Anderson. J.Berry; H.Durston and Milicent Poole (1997). Thesis and Assignment Writing, New Delhi: Wiley Eastern Ltd.

Bell, Judith, (1993). Doing Your Research Project A Guide for First-Time Researchers in Education and Social Science. Buckingham: Open University Press.

Best, J. W. and Kahn, J. V. (1996), Research in Education. New Delhi: Prentice Hall of India.

Cohen, L. Manion, L. (1994) Research Methods in Education, Routledge Publication.

Koul, L. (1997) Methodology of Educational Research, New Delhi: Vikas Publishing House Pvt. Ltd. Journals

- Australasian Journal of Educational Technology (AJET)

<http://www.ascilite.org.aulajetlajethtml>

The Australasian Journal of Educational Technology is a refereed academic journal, publishing research and review articles in educational technology, information and communications technologies for education, online and e-learning, educational design, multimedia, computer assisted learning, and related areas. AJET is published by the Australasian Society for Computers in Learning in Tertiary Education (ASCILITE).

- Canadian Journal of Learning & Technology

<http://www.cjltcafmdex.html>

- Contemporary Issues in Technology & Teacher Education (CITE)

<http://www.citejournal.org/vol8/iss1/>

CITE Journal is an online, peer-reviewed journal. It is a publication of the Society for Information Technology and Teacher Education (SITE). CITE Journal makes possible the inclusion of sound, animated images, and simulation, as well as allows ongoing, immediate dialog about theoretical issues.

- Journal of Interactive Media in Education

<http://www-jime.open.ac.uk/>

- British Journal of Educational Technology (BJET) It is published on behalf of the British Educational Communications and Technology Agency (BECTA). This journal includes wide coverage of developments in the fields of education, training and information technology.

- Journal of Educational Technology & Society. It is published by International Forum of Educational Technology & Society. It is a quarterly journal (January, April, July and October).

**Websites :** You may visit the website of North Central Regional Educational Laboratory (NCREL) (<http://www.ncrel.org/sdrs/areas/teOcont.htm>) to know more about 'Technology in Education'.

**(Websites may not be permanent and may be changed/withdrawn)**

# FEEDBACK FORM

**Dear student**

Carrying out the project work of PGDET must have been a unique experience for you. Do spare some time and on the basis of your experiences, fill up the feedback form. Please do not hesitate to be frank with your views as this will help us in improving the project component of this programme. You may attach extra pages if you find the space given to be inadequate. Send the filled up form to:

Dr. Sutapa Bose

SOE,IGNOU

Maidan Grahi, New Delhi, 110068

1. To what extent was the theoretical background included in the first four courses useful for carrying out the project? Mention the activities that need more theoretical support.

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2. Difficulties faced in carrying out the activities (a brief note):

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3. Does the time required to carry out the activities you have chosen match the credits assigned to them? If not how much time was actually required?

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4. What are the benefits that you have drawn while doing the project work?

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