

Module 6 Distance Education

Unit 6.1 Learning and Communication

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Rationale

Teachers and Instructors of today, whether they are in the Primary, Secondary, Tertiary or Vocational sectors, need to be aware of the different technologies and communication modes that are available to assist them offer more effective learning opportunities to their students.

There are many technologies available, and many forms of delivery being practised. Some of the technologies are not currently available to technical and vocational teachers in the Caribbean, but the accelerating rate of penetration of the information technologies will see them readily available in the near future.

It is essential that teachers in a field so closely linked to industry and commerce have knowledge of the strategies that will be employed to make education and training more accessible. They also need an insight into the technologies and modes of communication that are being used in the industries and businesses they support.

The information, concepts and activities in the two units of this module will help you decide what approaches you can use to assist your students to learn most effectively. It is predicated on the concept of distance education, so discusses communication more from a perspective of distance education than classroom teaching.

It will offer you the opportunity to develop some of the skills necessary to consider the implementation of distance education for the delivery of at least some portion of your specialist area.

About this unit



Welcome to Unit 6.1 Learning and Communication

The unit has three sections:

- Section 1 Overview
- Section 2 How to choose communication modes
- Section 3 A taxonomy of learning modes

How to use this book

The unit consists of this manual and the videotape, “*What’s The Connection*”. The video has been designed to give you real life examples of trainers using different ways of communicating with their students. The manual and video are the only resources you will need to gain a basic understanding of communication modes and their use in education and training.

As well as the information, the manual contains activities. These activities don’t play a part in your assessment for the unit, but are there to help you check your understanding and progress.

Read the information, watch the video and do the activities as you are directed as you work through the manual.

How you’ll be assessed

You will be assessed on your response to two assignments. The assignments will require some research on your part.

Please contact your Tutor regarding any questions you may have on the assignments, or for any assistance you may require.

Finding your way

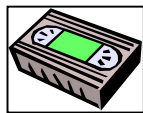
As you work through the text you'll see symbols in the left hand margin of some pages. These "icons" guide you through the content.



Read



Important- take note!



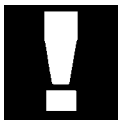
Watch the video



Self-checking question/activity



Assessment task



Competency

The curriculum of this training programme for Technical and Vocational teachers is competency based. The competency for each unit is expressed as a number of learning outcomes and assessment criteria. Assessment criteria specify what you must be able to do to show you have gained the knowledge and skills needed to achieve each outcome.

Each unit has its own assessment criteria specified. Recognition of prior learning is encouraged. If you feel confident you have the necessary level of competence to successfully complete the elements shown under Assessment Criteria on the next page, you may be able to take the assessment without studying the unit.

Learning outcomes

When you have completed this unit you should be able to:

- Identify the key modes of communication used in education and training
- Describe the features of communication modes which are relevant to education and training
- Identify modes of communication that teacher trainees could realistically introduce into their training practises
- List inherent shortcomings of the identified modes of communication

Assessment criteria

- Identify, in accordance with provided information, key modes of communication used in education and training
- Describe in accordance with provided information, features of communication modes which are relevant to education and training
- Identify modes of communication, able to be accommodated within available infrastructures, that teachers and trainers could realistically introduce into their training practises
- Identify the constraints of the modes of communication identified previously

Section 1



Activity 1

Before you start working through the manual, you should watch Part 1 of the video. This overview introduces some of the methods commonly used to communicate with students. You might like to take note of the variety of different approaches that have been used. In a later activity you will be asked to examine the content of the video in more detail.



Communication modes

Whenever you provide learning to a student, communication is involved. We use many different techniques to help students learn in their chosen subject or skill, but they all involve communication in one way or another. Communication is basic to the learning process. In order to make an informed choice about methods of communication, it is necessary to be aware of the differences between various modes, and combinations of modes by comparing their key features. We shall identify six major categories of communication modes.

These modes can be divided into two broad categories - **physical** and **electronic** communication. Electronic communication needs to use certain technologies, while physical communication may or may not utilise technologies. Both categories may use supplementary technologies to aid effective communication between teacher and student. Each of these categories can be further divided into subcategories.

When considering a communication mode, it is essential to consider its key features also. This would involve asking questions such as:

- how much access does it provide?
- will it be educationally effective?
- to what extent will it support educational administration?
- is it reliable?
- Is it sustainable?
- Can it be upgraded?
- How easy/hard is it to opt out, having made a commitment to it?
- What are the front-end costs?

- What are the likely recurrent costs?
- Is the selected mode cost-effective?
- To what extent can the costs be shared?

Technology

Technology is the application of science using tools. Some communication tools are based on old technologies such as printing, while others utilise very new technologies such as the Internet. Some communication tools are high tech, such as satellites, and others are low tech, like pencils.

One of the oldest communication modes is based on the technology of printing. The invention of printing in the 15th century allowed people to communicate with one another by technological means; communication was no longer restricted to direct, face-to-face physical modes.

Printing allowed the development of correspondence as a mode of communication for education. Learning could take place at a distance, based on the distribution of printed materials to students, and paper based, written communication between students and teacher or trainer.

Let us now look at both physical and electronic communication in more detail.

Physical Communication

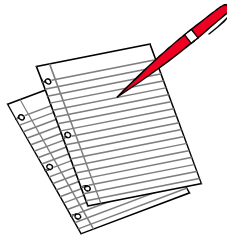
Messages between you and your students can be communicated by many physical means.

For example

- face-to-face speech
- body language (a puzzled look on a learner's face, a trainer thumping the desk)
- transmitting signals by drumbeats or the waving of flags
- posting learning materials to students and receiving completed
- written assignments received from them
- writing on a blackboard or paper
- sending notes by courier
- direct observation of someone demonstrating a procedure.

Some of these methods are of more use to us as trainers than others!

Therefore, physical communication can be used to train students face-to-face, as in a classroom, or at a distance, by sending printed or written learning materials by mail.



Activity 2

The communication modes shown in Part 2 of the video have a strong physical element. Watch this section then see if you can identify those that relied more on the physical communication than electronic means. Make a list of the examples that you can remember from the video. You may want to view the video again.

Consider all the ways that you could communicate by physical means with your students. Try to think of at least three means not mentioned in the notes above.



Electronic Communication

More recently-invented communication modes are based on electric or electronic technologies. When these technologies are used to communicate over some distance, the term *telecommunications* or *information technologies* is used to describe the transmission of information.

In May 1844, an American, Samuel Finley Breese Morse, sent the first “instantly transmitted” message on the magnetic telegraph he had constructed between Baltimore and Washington. This first telegraph message was a most prophetic one. It read, in Morse Code, “What hath God wrought?” What indeed! It was the beginning of a revolution in human communication. Since then the invention of new communication technologies has been continuous.

Here are some electronic methods of communication now widely used for education and training. They are modes of communication that allow the transmission of messages through the atmosphere, through space via satellite, or along a cable or a wire. Or information can be stored on a disc or tape, used later and as many times as you like.

- Audio:

Audio is any technology that allows us to **hear** a message. For example, the telephone is a form of audio technology, so are radio broadcasts, audiotapes and compact discs (CDs).

- Video:

The electronic transmission and reception of visible images or messages on a television or computer screen. The images or messages may be instantaneous, as in broadcast television, closed circuit television or video conferencing. Or they may be delayed images such as on videotapes or films.

- Audiographics:

A combined computer based communication that uses text, graphics, and video images combined with audio, which is usually transmitted by telephone. This is a rather cumbersome and expensive technology and has been passed over recently for more efficient technologies

- Internet:

Not exactly a mode of communication, but rather a system that allows communication. The foundation of the internet is special purpose telephone lines dedicated to calls between two sites, and connected by switching systems which route data (Gates, 1997)

- Email:

An application within the Internet, which allows for the electronic transmission of messages from computer to computer by remote users. Text files, visuals, video, and audio can be transmitted and picked up at will by the recipient at his/her own computer or at an Internet Café. (A commercial centre for the provision of electronic services). As with all mail services, the recipient needs an address.

- World Wide Web

Another application of the Internet, and probably the most popular.

“The World Wide Web (WWW) is a network of servers connected to the Internet that offer pages of information containing text, graphics, sound and programming capability within the Internet.

When you connect to a Web server, an initial screen (or page) of information containing a number of links appears. When you activate a link by clicking on it with your mouse, you are taken to another page containing additional information and possibly other links.” (Gates, 1997)



Activity 3

There are examples of all of the above forms of electronic communication in part 3 of the videotape. View the video to locate each type and see if you can identify the specific kind of information being transmitted in each case. You might consider how appropriate the technology was for the communication that was needed.



Words used to describe communication modes

The words used to describe the characteristics of communication modes allow us to categorise these modes in different ways. For instance, those that are immediate or delayed, those that are either one way or two way communication etc.

On pages 29-31 is a table that defines some of the words used in discussing the functions and modes of communication. It would be useful for you to gain an overview of the terminology before we proceed.

**Activity 4**

Turn to the table on pages 29-31 and as you read through it, highlight or underline the terms with which you are familiar. There is no need to learn those you are unfamiliar with – the table is a reference for you to refer to when you come across a term whose meaning you are unsure of.

Section 2



How to choose communication modes

Case Study

This Case Study will walk you through the process of selecting an appropriate communication mode to match your purpose.

Engineering Technicians – Communications

Who are my students?

I have a group of twenty-five students. They are technicians in twenty-five small engineering businesses located in small townships scattered around the countryside. They are adults with basic education including functional literacy. They are busy at work and most of them have family commitments.

What do I need to teach them?

I am required to teach them how to communicate with their customers, by means of the spoken word, in writing and via basic telecommunications media such as the telephone. I want to introduce them to certain principles of communication and then provide them with experience so that they can put those principles into practise.

What resources do I have?

I am based in a technical college in one of the regions and am responsible for a number of classes at the college, but have been given two hours a week for five weeks to prepare for teaching the technicians. I have not been given any funding for this activity, but I can make use of the college's telephones, mail services, print shop and audio visual technician, who has some basic photographic and video equipment. There is limited access to the Internet in the communities in which the technicians work.

What communication features am I looking for?

What should be the features of the communication modes I choose:

- to communicate with them
- for them to communicate with me

- for them to communicate with each other
- or for them to communicate with other persons (for example their employees or customers)?

What kind of learning experience does the curriculum call for?

Training the engineering students presents us with a number of issues. We know that the subject they will study is “Communications” and this will involve skills in:

Face to face and the telephone

- spoken communication by either face-to-face exchange or the telephone
- using the written word

We need to decide what kind of learning experiences the students should have to:

- learn about the principles of communication
- practise and develop the required skills of face-to-face and telephone communication.

It would help if they were able to compare their own communication with other examples of spoken communication. So, one of the audio modes of communication should be used.

- Audio tape or even video tape might be suitable.
- Face-to-face communication may be the most appropriate if communication of vocal and body language are involved.
- The telephone would provide an opportunity to practise direct communication skills. However, for students learning in a distance education mode, the question of the cost of calls may be a problem.

When students need to practise their communication skills and demonstrate their competency, **direct communication** is used between students and the people with whom they communicate.

Using the written word

Written communications must be represented as text. The most accessible way for many people to do this is still probably the printed word on paper.

But it is now also common to produce and examine text on computer screens, transmitting it via either fax or e-mail. The

latter choices are by far more expensive and less accessible, but are superior in their efficiency.

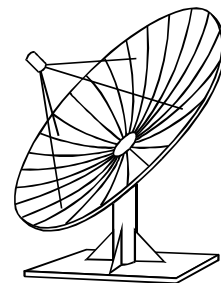
It may also be useful to combine audio with printed and written texts so that:

- your students gain a more complete understanding of how some written communications are received and how they may be improved.
- you can provide dictation exercises for your students
- your students can record and submit evidence of practical work.

To sum up:

You could use any one of the communication modes mentioned above, and probably think of others as well. The important point is to select from those that are most likely to help your students to gain competency in the communication skills required by the learning outcomes of their course.

So, first, you need to examine in detail the learning experiences that your students will require, and to decide on a “short list” of communication modes that will help you to provide those experiences. Then you must consider if there are any external factors and pressures that will influence your choice from the short list. These could include costs and student circumstances.



How do I communicate the general principles of communication?

What communication features are important?

I need to use a mode, or combination of modes, which is point to multipoint (that is from me to them), but which does not need to be two ways or in conference mode.

What access do the students have to communications?

I cannot assume that the students have access to specialised communications equipment. If students are in regions with comprehensive and well-established infrastructures, I could assume they have access to a postal service, telephones, audio cassette players, radios and television receivers in their homes, at work, and/or in community or education centres. But I really should check whether these assumptions are justified.

If my students are in regions which are not well serviced, I might be able to assume that, at least at their places of employment or through community or education centres, they have access to radio. But again, I would need to check on this.

What level of choice and control should the students have?

Given their locations, work and family commitments, the communication would preferably not be face to face and should give them choice and control over when and where they receive communication.

What sort of interaction should there be?

The major interaction is between me and them; it is not vital that the communication be real time.

Can the students be told where to receive my communications?

The communication mode(s) should, as much as possible, not specify where the students receive communication from me.

What reach should my communication have?

The students are scattered around the countryside – the communication mode should have a wide reach.

What can I afford?

I cannot afford any large investment of funds. I can invest a modest amount of my time and that of support staff at my college.

Which communication mode do I choose?

The communication needs to be:

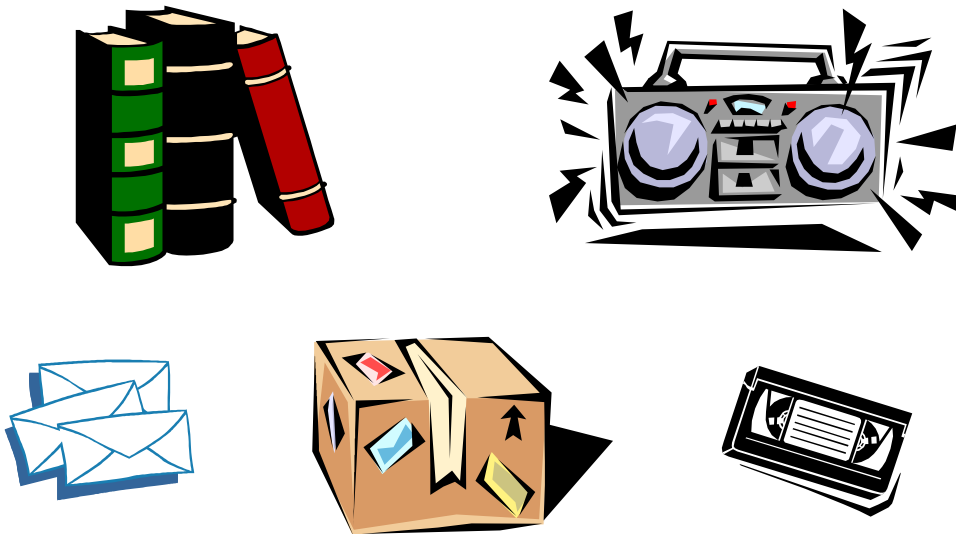
- point to multipoint
- be based on easily accessible equipment and services
- give students choice and control over where and when they learn
- provide either delayed or immediate interaction between myself and them
- avoid specifying where students are to receive my message
- have a wide reach
- involve only modest levels of investment of time and resources

Some communication modes can be ruled out immediately. For example, face-to-face lectures considerably reduce student choice and control; normal telephone calls are only point to point; students do not have access to computers, voice mail or interactive video networks; television broadcasts are too expensive, especially given the small number of students.

Correspondence, recorded audio, recorded video, telephone conferencing and radio broadcasts are possibilities. However, the more I think about it, all of these have some drawbacks:

- telephone conferencing and radio broadcasts specify a time and to some extent the place for students to learn
- the preparation of good correspondence materials may take more time than I have available, and I may need the assistance of a good instructional designer
- the students may not have access to video players
- the telephone system may not be good enough to support conferencing

Correspondence, recorded audio and recorded video are my three choices because they provide the students with the greatest choice and control of their learning. The final choice will depend on closer examination of the services and facilities which are available to my students, and me and on my preferences and those of my students – in other words, what sort of communications we feel comfortable with.



What sort of Communication will support the practical work?

What communication features are important?

They should certainly provide at least some experience of face-to-face, correspondence and audio communication. Some communication will need to be two way and some in conference mode.

What access do the students have to communications?

I still must make the same assumptions about the students' access. However, because of the practical experiences I want them to have, I may need to overcome, or ask to overcome, lack of access to certain modes of communication.

What level of choice and control should the students have?

Again I want to give them as much choice and control as possible over where and when they receive communication, but some compromise will be necessary if they are to communicate with other students, with me, or with other persons, at agreed times and possibly places.

What sort of interaction should there be?

The level of interaction should be high. The correspondence can be delayed. But the practical experience of face-to-face or telephone communication must be immediate.

Can the students be told where to communicate?

For reasons already given, they will need to be at certain locations for certain types of communication, for example, at a telephone.

What reach should the communications have?

The students are scattered all over the countryside. Either the communications mode should have a wide reach, or they will need to do some travelling to take part in the practical communications sessions.

How secure should communications be?

As there are no state or commercial secrets involved, security is not an issue.

What can we afford?

Neither the students nor I can afford any large investment of funds. We can invest some of our time and that of support staff at my college.

Which communications mode do I choose?

The communication must be:

- two way on some occasions, in conference mode on other occasions
- highly interactive
- delayed when dealing with correspondence and immediate when dealing with the spoken word

I must still take account of questions of access, student location, students' work and family commitments, and the resources available to us. But I need to compromise in order to achieve the practical objectives that have been set.

Given all of the above, the answer will not be straightforward. I shall need to consider a variety of communication modes, maybe different ones for different students.

Correspondence will be fine so long as we are only dealing with communication by printed or written word. But it will certainly not provide any meaningful experience of face-to-face or technology based on the spoken word.

Could I reasonably ask my students to give up work and/or family time to travel to special locations such as a local college in order to interact with each other face-to-face or using specialised equipment?

Could I convince their employers to allow them time at work to take part in some practical communications exercises? Could I even convince employers to take part in the exercises?

Face-to-face seminars and practical sessions meet many of the requirements. If they can be conducted at work or in the students' communities, then that would overcome some of the problems.

Telephone tutorials and telephone conferences must be considered, and if students cannot use the right equipment at home or work, I shall need



Assignment No. 6.1-1

Unit 6.1 Learning and Communication

You are now required to do the Assignment 6.1 – 1 that will be found at the end of this unit or distributed by your Tutor.

Section 3



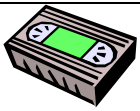
A Taxonomy of Learning modes

The features of the communications modes we studied can be classified and described in a taxonomy. A taxonomy describes the principles or characteristic features of items in a classification.

Table 2 on pages 32-33 *Features of Communication Modes – a taxonomy* summarises for you some of the characteristics of communication modes used in education and training. This table suggests answers to questions that we, as trainers, should be asking ourselves about the features of a communication mode.

Questions we need to ask ourselves about communication modes include:

1. What are its primary media?
2. What are its communication features?
3. What level of student choice and control does it offer?
4. What level of interaction does it provide? Is this interaction delayed or immediate?
5. Does it impose limits on where students can be located?
6. What level of practical experience can it provide to students?
7. How wide is its reach?
8. What level of security does it offer?
9. What level of front-end cost is involved for facilities and courseware?
10. What level of recurrent cost is involved for low and for high numbers of students?



Activity 5

Before looking at Table 2 in any detail, watch the video again. This time you will be looking for answers to the ten questions that have just been posed, so keep them close to you while you view. Write down your findings as you watch. You may not be able to find answers to all of the questions but you will start thinking about the features of different communications. Play the video as often as you wish. If you are working through this unit with a group, mentor or colleague, discussion of the questions in relation to the video could be lively and informative



Overview of features of communication modes

Here are some comments on the ten questions that we have just asked about the features of communication modes. These comments or “answers” are summarised for you in Table 2. As you read the following notes, see if you agree with the comments and the “answers” given.

The communication could be based on various media, including:

- audio
- body language
- practical equipment
- text and graphics on paper
- text, graphics and data on screen
- still video on screen
- moving video on screen

The communication could be:

- physical or, postal or electronic
- one-way or two-way
- point-to-point, point-to-multi point, or conference mode

Some modes have the potential to offer considerable choice. For example, correspondence can give students a choice of *where* they can learn, *when* they can learn, and to some extent, *how* they can learn. Student choice and control can be limited by the design of the learning materials, by teacher’s prescription or by regulation.

Interaction can take place between student and teacher, between student and courseware and between student and student. Some communication modes have the potential to offer greater levels of interaction than others. A seminar will allow more teacher-student interaction than a computer-based training programme. Video conferencing will allow more student-to-student interaction than recorded videotape.

Interaction can take place in “real time”, (i.e. immediate) as when a student watches a live television broadcast, or it can be delayed, as when a message is read from an electronic bulletin board or e-mail at the receiver’s convenience.

Communication by correspondence imposes virtually no requirement on the student to learn at a specific location. On the other hand, a face-to-face lecture is specific in its demand that a student be at a particular place at a particular time.

When students are required to use special equipment, they will need to spend time at a location where such equipment is available.

The amount and type of practical work that can be performed by students will vary according to the type of communication they are using, and the access they have to the necessary facilities. Some communication modes have the potential to provide practical work in their own right.

Computers, for example, can provide both the actual and simulated work. Other modes, such as face-to-face lectures and correspondence, do not, in themselves, provide practical work. But they can do so when combined with other activities such as practical exercises when performed on the job or in a laboratory.

How many students can be reached by various communication modes? How far from its source can a message be conveyed? How many different locations can receive the message?

Some modes are obviously very limited in their reach. A face-to-face lecture goes only as far as the back row in the lecture hall, unless it is combined with other communication modes such as messages on paper, audio or video tape recordings, radio or television.

Other modes have greater potential: correspondence goes wherever the postal system goes; television goes as far as the satellite beams allow, and the Internet covers the globe (and is only restricted by the extent to which people have access to the necessary infrastructure).

The choice of communication mode will help to determine how secure, or private and confidential the messages between student and teacher can be kept. Broadcast television is a very public medium. On the other hand, information transmitted on private computer networks can be restricted to a specified audience.

Information on the Internet, such as courseware, can be restricted to particular “registered” users by use of a password, usually obtained by payment of a fee.

Any education programme requires some front-end cost. If students and teachers have somewhere to meet, face-to-face lectures may require very little investment in facilities and courseware. However, the efficiency may not compare favourably with other modes of communication. A face-to-face situation can only address a limited number of students in a “one off” situation.

Courseware, either text, audio, video, CD ROM or on-line, can achieve efficiency by economies of scale, although high in development costs. It can be offered to any number of students, over an extended time frame, and in a wide diversity of locations. The cost decreases with the number of students who access it.

You will not necessarily agree with all the comments and answers in Table 2 and the notes above to the questions that we have asked about the features of communication modes. This does not really matter, as long as you agree that they are questions that trainers should consider.

Which answers you would change? Is this because of special circumstances in your region or country? What additional questions might you ask? Are these additional questions relevant to trainers everywhere, or only to you in the special circumstances within which you work?

The features of communication models

We shall now use Table 2, *Features of communication modes – A Taxonomy*, on pages 32-33 to examine some of the attributes of different communication modes. A study of this table will help you build upon the information obtained from the video.

Remember, if you are unsure of the meaning of any term used in Table 2, look it up in Table 1, some words used to describe communication (pp 29-31).



Activity 6

On pages 20-22 there is an overview or summary of some of the main points in Table 2. You may need to refer to it to complete the following exercise. By using Table 2, and/or the summary, fill in the blanks on the chart on the next page. Two examples have been done for you.

The modes chosen for you to consider are correspondence and video broadcast. You would use these modes under different circumstances in the offering of your programme, but this would not affect your answers here.

Discuss your answers with your Tutor.

Question	Correspondence mode	Video broadcast
1. What are its primary media or “tools”?	Text/graphics on paper	Video, audio, body language
2. What are its main communication features?	Postal, one way point to multi point, (distribution of materials and two way point to point (submission and marking of assignments)	Telematic, one way, point to multipoint
3. What level of student choice and control does it offer?		
4. What level of interaction does it provide? Is this interaction immediate or delayed?		
5. Does it impose limits on where a student can be located?		
6. What level of practical experience can it provide to the students?		
7. How wide is its reach?		
8. What level of security does it offer?		
9. What level of front-end cost is involved?		
10. What level of recurrent cost is involved?		

From the completion of this simple activity, it will be obvious that the two modes have very different features. If a mode is available for you to use, whether you do utilise it or not will depend on what learning experiences and outcomes you wish to achieve for the students. All good trainers analyse the learning outcomes they wish their students to achieve before deciding on the most appropriate communication mode for any programme of study.



Activity 7

Assume that one of your desired learning outcomes requires maximum and immediate interaction between students in your training programme. You require them to discuss the pros and cons of a certain procedure and come to a decision about its suitability. Look at column 4, Interaction, in Table 2. List here the mode subcategories that have the potential to provide high and immediate interaction. The first has been listed for you as an example.

High and Immediate interaction

1. Face to face tutorial
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

You can use Table 2 whenever you have a need to make a decision about the most effective communication strategy for a particular outcome.

The table, of course, cannot answer all your questions, but it can provide a range of alternative communication strategies for you to consider. What communication mode you choose will depend on a host of issues including resources, facilities, curriculum, regulations and student circumstances.

Combining communication modes

The different communication modes can, of course, be combined to suit your purposes. Messages can be transmitted and received in numerous ways. Some examples are:

- you can talk to your students on the telephone (audio) at the same time as you send them a fax. (electronic)
- you can send your students printed (correspondence) materials and a video for them to study before attending a seminar or tutorial (face-to-face)
- students in a classroom (face-to-face) may use a computer generated exercise or assessment test



Activity 8

You have seen some examples of combined communication modes in the video. Some are also outlined in the paragraph above. You should be able to recall those times when two or more communication modes were used to transmit information.

- 8.1 Select one example. What particular modes were chosen?
- 8.2 Why do you think those modes were chosen?
- 8.3 Discuss any other modes which would have been as, or more, appropriate
- 8.4 Which of the communication modes are the most appropriate for your use in interacting with your students?
- 8.5 Think about the reasons why these are the most appropriate
- 8.6 Which of the following communication tools or strategies would be available for you and your students to use? Which ones would be appropriate for you and your students to use? Place a tick (✓) in the relevant box.
- 8.7 Look at the tools or strategies you did not tick as appropriate to use. Why do you consider them inappropriate?
 - Lack of training in their use?
 - Not suitable for your specific needs?Other reasons?

Tool or Strategy	Available	Appropriate
Audiotapes	<input type="checkbox"/>	<input type="checkbox"/>
Blackboard or Whiteboard	<input type="checkbox"/>	<input type="checkbox"/>
Computerised library catalogues	<input type="checkbox"/>	<input type="checkbox"/>
Computer generated exercises or tests	<input type="checkbox"/>	<input type="checkbox"/>
Fax	<input type="checkbox"/>	<input type="checkbox"/>
Lectures	<input type="checkbox"/>	<input type="checkbox"/>
Microfiche records	<input type="checkbox"/>	<input type="checkbox"/>
One-to-one telephone calls	<input type="checkbox"/>	<input type="checkbox"/>
Overhead projector	<input type="checkbox"/>	<input type="checkbox"/>
Photocopier	<input type="checkbox"/>	<input type="checkbox"/>
Practical sessions	<input type="checkbox"/>	<input type="checkbox"/>
Printed study materials prepared by you	<input type="checkbox"/>	<input type="checkbox"/>
Study materials prepared by someone else	<input type="checkbox"/>	<input type="checkbox"/>
Radio broadcasts	<input type="checkbox"/>	<input type="checkbox"/>
Slide packs	<input type="checkbox"/>	<input type="checkbox"/>
Telephone conference	<input type="checkbox"/>	<input type="checkbox"/>
Television broadcast	<input type="checkbox"/>	<input type="checkbox"/>
Textbooks	<input type="checkbox"/>	<input type="checkbox"/>
Tutorials	<input type="checkbox"/>	<input type="checkbox"/>
Typewriter	<input type="checkbox"/>	<input type="checkbox"/>
Videotapes	<input type="checkbox"/>	<input type="checkbox"/>
Voice mail	<input type="checkbox"/>	<input type="checkbox"/>
Word processor	<input type="checkbox"/>	<input type="checkbox"/>
Email	<input type="checkbox"/>	<input type="checkbox"/>
WWW	<input type="checkbox"/>	<input type="checkbox"/>

There are no “right” or “wrong” answers to these questions. The answers depend on your particular situation. However, they should stimulate you to think about the way you communicate, and therefore teach your students.

Most of us seem to accept the basic strategies that been tried before us. But the technologies available in education are increasing and becoming more accessible. As an instructor or teacher in a vocational area, which is so closely tied to industry and commerce, you need to have a keen awareness of the possibilities that are available, and will become available in the near future.

Suggested solutions to activities

Activity 1 – page 5

The video

Having viewed the video, you should have a list of all the different types of communication methods that were found. Electronic modes may have included audio, video, audio conferencing, video conferencing and computer communications such as e-mail and the Web.

Activity 2- page 7

Part 2 of the video, which relates specifically to the physical modes, illustrated such communication methods as face-to-face, lectures, tutorials, demonstration, and seminars and correspondence involving printed materials and mail delivery.

Activity 3 – page 9

The forms of electronic communication and the types of information being transmitted in Part 3 were:

Recording information on tape	audio
Use of headphones	audio – technical and
language	
Phone	audio – personal support
Teleconferencing	audio – networking
Computer	audio/visual – review, assessment, management
Video	audio/visual – demonstration
Video conferencing	audio/visual – demonstration, body language

Activity 4 – page 10

No suggested responses for this activity as it is based on your own knowledge level.

Activity 5 – page 20

Discuss your answers with a colleague and with your tutor and fellow trainee teachers during a seminar session.

Activity 6 – page 23

Again, discuss your response to this question with your Tutor

Activity 7 – page 24**High and Immediate interaction**

1. Face-to-face tutorial
2. Face-to-face – seminar
3. Face-to-face - Practical
4. Audio - telephone
5. Audio – audio conference
6. Audio – voice mail
7. Video conference
8. Computer – stand alone
9. Computer – Internet
10. Computer-based multi media

Activity 8 – page 25

8.1– 8.5: Check your responses with your Tutor.

8.6: Discuss your responses with a colleague at your school/college or workplace

TABLE 1 Some words used to describe communication

TERM	MEANING
ELEMENT Data Message Transmitter Receiver Courseware Point	<p>Factual elements which, if combined coherently, provide information.</p> <p>Information provided by one person or group to another.</p> <p>Person sending messages.</p> <p>Person receiving messages.</p> <p>Learning materials recorded in any physical or electronic medium.</p> <p>Person, workstation, or location involved in communication.</p>
MEDIA Audio communication Body language Text Graphics	<p>Communication which is heard by the receiver.</p> <p>Physical movements which can be interpreted by an observer as demonstrating emotions or attitudes.</p> <p>Words, made up of letters of the alphabet, displayed on surfaces which are physical (paper, blackboard) or electronic (computer screen).</p> <p>Pictures, diagrams and symbols displayed on surfaces which are physical (paper, blackboard) or electronic (computer screen).</p>
NETWORK	Three or more locations connected by physical or electronic means.
TYPES Communication at a distance Face-to-face communication One-way communication Two-way communication Point-to-point communication Point-to-multipoint communication	<p>Where the transmitter and receiver are separated by time and /or space.</p> <p>Where the persons sending and receiving messages are in the same place at the same time, communicating using speech or visual signs which are received immediately.</p> <p>Where all messages are transmitted from one point – face to face or at a distance.</p> <p>Communication where messages between two points are transmitted from, and received by, both points. It may be face to face or at a distance.</p> <p>Communication between two points. It may be face to face or at a distance one-way or two-way.</p> <p>Communication between one point and two or more other points. Maybe face-to-face, at a distance or a mix of both. If any is at a distance communication will require a network.</p>

Immediate communication	Communication which is received as it is transmitted. It may be face-to-face or distance.
Real time communication	Communication which is received as it is transmitted.
Delayed communication	Communication which is stored, either physically or electronically, before it is received.
METHODS	
Correspondence	Printed and/or written communication between two or more points. The communication is at a distance, paper-based and may be delivered by post or hand.
Lecture	A situation where one person talks, by and large without interruption, to a group. It may be face-to-face, at a distance or a mix of both.
Seminar	A situation in which members of a group discuss matters. It may be face-to-face, at a distance, or a mix of both.
Tutorial	A situation in which one person leads the discussion by a small group or an individual. It may be face-to-face or by distance.
INFORMATION TECHNOLOGY	
Telematic communication	Communication using electronic information technologies.
Signals	Electronic impulses transmitted from one location to another.
Video	An electronic medium which generates “television” images. The images may be still or moving and usually combined with audio. Video may be recorded on tape or disc.
Video disc	Electronic medium which stores still and moving video. It is capable of faster and more powerful interaction than video tape, especially when combined with computer programmes.
Voice mail	A computer-based communication system which records, transmits, receives stores and retrieves audio messages.
Audiographic communication	Computer-based communication combining text, graphics, audio and still and/or moving video images.

E-mail	A computer-based, networked, mail system predicated on the use of telephone or satellite transmission for relaying of messages.
Web	A world-wide network of information (much of which is public) stored on computer and accessed by satellite or telephone connection.
FEATURES	
Front end cost of communication	The initial investment in the facilities, infrastructure, expertise and programmes necessary to establish communication.
Recurrent cost	The continuing costs of using the communication modes.
Reach of a communication mode	The number of people and locations that can receive the communication.
Security of communication mode	How readily access to the communication can be restricted.

TABLE 2 Features of Communication Modes – A taxonomy

COMMUNICATION MODES		ACCESS		
		Reach	Specified location	Specified equipment
Face to Face	Lecture	Limited	Lecture room/hall	No
	Tutorial	Limited	Tutorial room	No
	Seminar	Limited	Seminar room	No
	Practical	Limited	Practical area	Probably
Correspon-dence	Postal	Wide	Within postal system	No
	Courier	Wide	Within reach of service	No
	Fax	Wide	Within telephone system	Phone & fax
Audio	Recorded	Wide	Access to electrical power (grid, battery etc)	Tape or disc player
	Telephone	Wide	Within telephone system	Phone
	Phone conference	Wide	Within telephone system	Phone
	Voice mail	Wide	Within telephone system	Tone dial phone
	One way broadcast	Wide	Access to electrical power (grid, battery etc) Within reach of broadcast	Radio receiver
	Talk-back radio	Wide	Access to electrical power (grid, battery etc) Within reach of broadcast	Radio receiver & phone
Video	Tape	Wide	Access to electrical power (grid, battery etc)	Video player & TV/monitor
	Disc	Wide	Access to electrical power (grid, battery etc)	Video disc player
	One way broadcast - public	Wide	Access to electrical power (grid, battery etc)	TV receiver
	- private	Limited	Access to electrical power (grid, battery etc)	Receiver & decoder
	Talk-back TV - public	Wide	Access to electrical power (grid, battery etc)	TV receiver & phone
	- private	Limited	Access to electrical power (grid, battery etc)	TV receiver , decoder & phone
	Video conferencing (old - for new see multi media)	Limited	Access to electrical power (grid, battery etc)	Video conferencing equip including codes., monitors, cameras, mikes etc.
Computer	Stand alone	Limited	Access to electrical power (grid, battery etc)	Computer & software
	Network (Email, Internet etc) - public	Wide	Access to electrical power (grid, battery etc)	Computer, software, modem & communication channel, eg phone line
	- private	Limited	Access to electrical power (grid, battery etc)	Computer, software, modem & communication channel, eg phone line
Computer based multimedia	Stand alone	Limited	Access to electrical power (grid, battery etc)	Powerful computer & software
	Real time network - public	Wide	Access to electrical power (grid, battery etc)	Powerful computer, software, modem & communication channel, eg phone line
	- private	Limited	Access to electrical power (grid, battery etc)	Powerful computer, software, modem & communication channel, eg phone line
	Delayed network - public	Wide	Access to electrical power (grid, battery etc)	Powerful computer, software, modem & communication channel, eg phone line
	- private	Limited	Access to electrical power (grid, battery etc)	Powerful computer, software, modem & communication channel, eg phone line

COMMUNICATION MODES		EDUCATIONAL EFFECTIVENESS											
		Provision of Information	Dvlpt of Knowledge	Dvlpt of skills	Dvlpt of attitudes	Learner choice/control	Learner interaction (I - immediate; D – delayed) with:						Practical work
							Educator		Courseware		Other learners		
							1 way	2 way	1 way	2 way	1 way	2 way	
Face to Face	Lecture					None	I - High						None
	Tutorial					Medium		I - Med				I - Med	None
	Seminar					High		I - High				I - High	None
	Practical					High		I - High		I - High		I - Med	Yes
Correspon-dence	Postal					Very high re time & place	D- High	D - High	I –High	I - Low	Possible	Possible	Possible
	Courier					Very high re time & place	D- High	D - High	I –High	I - Low	Possible	Possible	Possible
	Fax					Very high re time & place	D- High	D - High	I –High	I - Low	Possible	Possible	Possible
Audio	Recorded					Very high re time & place	D- High	Possible	I- High	I- Low	Possible	Possible	Possible
	Telephone					Medium		I - High				I - High	
	Phone conference					Medium – low		I - High				I - High	
	Voice mail					Medium – high	D- High	D - High					
	One way broadcast					Low	I - High						Possible
	Talk-back radio					Low – medium		I - High			I – High	I - Low	
Video	Tape					Very high re time & place	D- High	Possible	I- High	I- Low	Possible	Possible	Possible
	Disc					Very high re time & place	D- High	Possible	I- High	I- Low	Possible	Possible	Possible
	One way broadcast - public					Low	I - High						Possible
	- private					Low	I - High						Possible
	Talk-back TV - public					Low – medium		I - High			I – High	I - Low	
	- private					Low – medium		I - High			I – High	I - Low	
	Video conferencing (old - for new see multi media)					Low – medium		I - High				I - High	
Computer	Stand alone					High	D- High	D - Med	I -High	I - High			Med - High
	Network (Email, Internet etc) - public					High	D- High	D - High	I -High	I - High	D - High	D - High	Medium
	- private					High	D- High	D- High	I –High	I - High	D - High	D - High	Medium
Computer based multi-media	Stand alone					High	D- High	D- High	I -High	I - High			Med –high
	Real time network - public					High	I - High	I - High	I -High	I - High	I – High	I - High	Medium
	- private					High	I - High	I - High	I -High	I - Hgh	I – High	I - High	Medium
	Delayed network - public					High	D- High	D - High	I –Hgh	I - High	D - High	D - High	Medium
	- private					High	D- High	D - High	I -High	I - High	D - High	D - High	Medium



Assignment No. 6.1-2

Unit 6.1 Learning and Communication

You are now required to do the Assignment 6.1 – 2 which will be found at the end of this unit or distributed by your Tutor.



Assignment No. 6.1-1

Unit 6.1 Learning and communication

To be completed and returned to your Tutor for assessment.

This is an Open Book assignment and you may refer to whatever resources you have at your disposal.

Name: _____ Due Date: _____

Question 1

Consider the issues, which we have just discussed in the case of training the Engineers in Communications.

Which communication modes would you choose in this situation?

What support would you or the students need to arrange for them to use the modes effectively?

Write a statement of approximately 400 words that clearly outlines your choice of modes and support resources. Give the reasons for your answers.



Assignment No. 6.1-2

Unit 6.1 Learning and communication

To be completed and returned to your Tutor for assessment.

This is an **Open Book** assignment and you may refer to whatever resources you have at your disposal.

Name: _____ Due Date: _____

Question 1

Attached is an example of how different communication modes have been combined to train students who wish to obtain a qualification in nursing. The programme represented in the diagram was designed so that trainees can train themselves to understand the hospital procedures associated with basic patient care. Qualified supervisors are present to help trainees whenever guidance is needed. The emphasis of the programme is, however, on students taking responsibility for their own training.

What communication modes have been used in the programme?

Do you think the modes chosen are appropriate for the learning tasks described? Explain why.

In this programme, trainees often work by themselves as independent learners. Do you consider this an appropriate method of learning? Give reasons for your answer, including the advantages and disadvantages, for the trainees, of working independently.

In what ways does the organisation of this programme allow flexibility of programme delivery?

Your response should be in the form of well-constructed sections totaling approximately 400 words.

Question 2

The last section of the videotape presents an opportunity for you to examine how trainers deal with the problem task of examining all the factors that can affect their choice, and using the taxonomy, making the most appropriate choice.

Greg and Kathy use the taxonomy to help them select the best communication modes for their group-training course. Of the many issues that they have to consider, there are three that you are asked to comment on.

How best to assess the practical teaching skills of distance education students?

Select the most appropriate communication modes

Decide whether video conferencing is a suitable mode for these students



View the videotape and use the taxonomy to help you make your choices. Justify your answers for each section in well-structured sections of 80 to 100 words each – approximately 300 in total.

CERTIFICATE IN NURSING

BASIC PATIENT CARE

Introduction to Programme

Learning Guide

Covers the entire programme.

Describes expected learning outcomes and study tasks

Explains the procedures step by step.

Lists emergency procedures

Video

Illustrates and describes the programme, explains hospital ethics, emergency situations response

Reference Book

Contains additional, detailed information on steps in the procedure. Is referred to in the learning guide

Video

Trainee watches a demonstration of the routine nurses perform for the first morning round of wards in their care

Overview

Tour of the facility.
Identification of location of physical elements of the area.

Hand out of layout of area

Assessment

Trainee completes task and has it assessed against a checklist of procedural steps and learning outcomes as detailed in the learning guide and on procedure cards

Assessment of Practical

On the job – assessed by supervisor

Practise

Trainee performs the routine under close supervision for one week

Stills from demonstration video are in the form of an illustrated step by step procedure on cards

Assessment of theory

Computer generated test