

Module 6 Distance Education

Unit 6.2 Delivery Mechanisms

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About this unit

Welcome to Unit 6.2 Delivery Mechanisms

The unit has three sections:

- Section 1 Distance Education and Flexible Delivery
- Section 2 Distance Education and TVET
- Section 3 Roles and Responsibilities in Distance Education

How to use this book

The unit consists only of this manual. As well as the basic 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 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!



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:

- Describe the features of distance education and flexible delivery
- Identify elements of TVET that can be considered appropriate for delivery by distance education
- Develop an alternative model of delivery appropriate to local resources and infrastructures for your field of specialisation
- Specify implications of delivery by distance education mechanisms in terms of support for students
- Identify the roles required of managers, administrators, teachers and learners in the alternate delivery of TVET

Assessment criteria

- Describe, in conformity with given information, the features of distance education and flexible delivery
- Identify the major constraints in delivering TVET by distance education
- Develop and illustrate a cost effective alternative model of delivery of a technical/vocational subject, which is appropriate, given the resources and infrastructure
- Explain, demonstrating an awareness of the strong need for student support, particularly in practise, the implications of distance education relevant to support for students
- Identify, in accordance with the information provided, the roles of managers, administrators and teachers in the alternate delivery of TVET

Section 1



Distance Education and Flexible Delivery

Characteristics

Learning

We all learn an endless variety of skills and acquire an infinite amount of knowledge in innumerable situations. Consider the last time you *learned* something new - a new skill, acquired some new knowledge or developed a new attitude (usually because of something you learned). Often we can recall the acquisition of a new skill, such as how to cook a new dish, how to change a wheel on a car, how to send mail by electronic means, as skills are easier to acquire than knowledge or attitudes, (possibly because in acquiring a new skill, you actively *do* something, and doing is a sure way to learn).

When you have decided *what* you learned, think about *where* you learned it, and how. The chances are it was not in a classroom. So that exercise helps to illustrate that we certainly don't *need* a teacher to teach us all the things we learn, just access to the appropriate information, instruction, demonstration, or opportunity to experiment and discover.

And how did you know you *actually learned something*? If the wheel you replaced stayed on the vehicle, and didn't pass you as you headed down the highway, if the recipe you tried turned out well and didn't give your guests indigestion, if the message actually went into cyber space and didn't return, you probably can assume you mastered the skill. It was the actual successful *application* of the knowledge or skill that told you whether you had achieved the outcome you had hoped for.

So the modes of learning and assessment that can be identified vary considerably. The traditional method of learning in a face-to-face situation (the method most of us used as our primary mode of learning) has come under a deal of scrutiny with the introduction of alternate methods. Let's take a look at some of the characteristics of our traditional means of learning to see if we can identify the characteristics that make distance and flexible delivery non-traditional, and see if there are valid reasons why alternate methods cannot be as effective as their more established counterparts.

Face to face / traditional learning

Face to face does have many advantages, which were highlighted in **Unit 3.1 – Instructional/Learning Strategies**. Learners can see what the teacher is doing, can ask questions, and get immediate feedback. Learners can also pick up a great deal of information from observing body language, expressions and voice cues. Two-way communication is readily achieved and readily analysed. In addition to the communication between teacher and learners, the interaction between learners themselves can also be a very positive benefit. And a social process is occurring while learning is taking place. We have all learned this way and accept it as “normal”.

Because it has become the norm, it has not been subjected to the evaluation process and scrutiny that newer methods of learning have. But we know it is often difficult to get students and teachers into the same place at the same time – many have to spend as much time travelling in a day as they spend in the classroom. Transport, and the very accommodation itself, is expensive. The supply of qualified teachers is a problem in many specialised fields. And sometimes the social interaction becomes a barrier to learning.

The relationship between student and teacher can inhibit learning. The educational theorist, Carl Rogers (1994), believes that the single most important factor in learning is the relationship between the learner and the teacher. If this relationship is less than sympathetic and understanding, then the chance of profitable learning taking place is very limited. Social class, race, gender, ethnicity and physical appearance can all adversely affect the dynamics of a classroom, causing some students to feel very insecure and marginalized.

Open Learning

The concepts of, and distinctions between, **Open Learning** and **Distance Education** have become blurred and often the terms are used to mean the same thing. But generally, Open Learning tends to refer to a form of learning that may encompass many forms of delivery, including distance education.

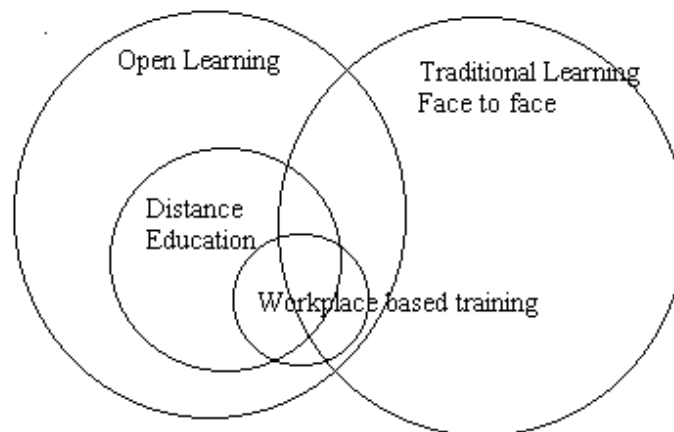
It is a concept that allows less restriction than what we generally understand as distance education, enabling people to not only learn at a time, place, and pace that suits them, but also to have greater control over the content and delivery mechanisms.

Open Learning has been defined¹ as:

...primarily a goal, or an educational policy: the provision of learning in a flexible manner, built around the geographical, social and time constraints of individual learners, rather than those of an educational institution.

Open learning gives the learners not only a wide choice of what they study, but also in what order they study it, and with what institution or organisation. It also offers the combination of options of studying on-campus with a traditional provider; by distance education; in a workplace; at home – perhaps in a study centre or a community centre. Add to that the full range of delivery options and the flexibility that is possible becomes evident - a flexibility to meet the demands of all learners.

Nor does Open Learning need to be bound by the restrictions of examinations that are required to be taken at a set period. More flexible and accommodating forms of assessment are consistent with the concept of open learning. Although tight definitions of open and distance learning are hard to tie down, the following diagram helps to illustrate the relationship.



¹ COL, OLA (1991) *Technology in Open Learning and Distance Education: A guide for Decision Makers*

Distance Education



Many countries have resorted to alternate forms of education to overcome the barriers of distance. A Correspondence School started in Australia in 1916, with packages of printed materials being sent to children in remote areas, where there was no possibility of them attending school. The ***School of the Air***, introduced in 1951, built onto this and was a means of bringing the children into direct, interactive contact with their teachers. This was the very beginning of real “distance education” in Australia as available technology was used to assist in the delivery of instruction and learning. It utilised a two-way radio network introduced originally to support the famous Flying Doctor Service. It broadcast to children in remote, sparsely populated regions of South Australia and the Northern Territory. The children responded, in turn (much like audio conferencing today) using a pedal wireless.

It provided an opportunity for both primary and secondary education, using a combination of correspondence texts and the radio, with the tutor’s role being fulfilled by parents. It helped to reduce the children’s feeling of isolation by bringing them into contact with their teachers and other students.

There was no sense that this system of education was inferior to that received by students in more traditional schools. Possibly because it adhered strictly to the same curriculum, was the only alternative for a very special sector of the population, and that population was extremely wide spread, making the system very well known.

By the 1980’s there were 21 radio stations covering an area of 1.5 million square kilometres. The upgrading of these educational services was part of the reason for the 1985 launching of the Aussat communications satellite. This tool assisted in developing the distance education capacity of the service.²

² Australians – A Historical Dictionary, 1987, Ed. Alpin, Foster S and McKernan M: Fairfax, Sydney

Case Study

India finds a solution to training for Tannery skills

A recent innovation in India has demonstrated the capacity of alternate forms of delivery, including distance education, to overcome the problems associated with training skilled workers to meet the demands of industry.

The India Gandhi National Open University (IGNOU) was approached (1995) by the Central Leather Research Institute (CLRI), with a proposal to develop skill training programmes at trade and supervisory levels for tannery workers. A problem existed in trying to train this large group of people, as appropriate training opportunities were almost non-existent due to:

- the size of the target group
- target group already being employed
- existing technical programmes addressing pre-service learners whereas the target group already possesses many skills
- formal education structures unable to cope with the demand
- the target group being disbursed across the country in the tanneries
- each tannery having specific training requirements
- the academic level of the target group drastically diverse
- tanneries being unable to afford to release workers to attend formal training programmes.

The challenge of this training need was to be able to extend the process of education into that of production at work, by integrating learning outcomes with the desired work outcomes.

It also embraced the extension of delivery routes through networking between all available training channels including:

- work place based
- non-formal mechanisms
- formal training institutions
- access extension structures

This bore witness to the realisation that one strategy alone could not accommodate the needs of the learners. The various groups involved in this dilemma, after detailed deliberation, finally determined the distance education would constitute an ideal strategy for implementing the competency-based Tannery Worker Vocational Qualification Programme.

Following this decision, the competencies and sub competencies of the tasks involved were identified, standards set, and self instructional materials developed. The latter were print based but included full audio coverage to accommodate the lower academic standard of some workers.

The delivery of the programme incorporated:

- self study materials
- work demonstration based training/counselling inputs at workers specific tannery
- supplementing functional knowledge, assignments and activities and modern work based practises at local study centres within the tanneries
- programme guidance and assistance at partnering institutions
- advanced knowledge and technology demonstration at partnering institutions

This model for offering skill-based training has been very successful, to the extent that it is planned to extend it into other trade areas, viz; Mason, Bartending, Carpenter and Construction work Supervisor. What can be learned from this model is that to successfully offer the full spectrum of knowledge and skill required within vocational education, it is necessary to call on the resources and expertise of a number of sectors of the training/industry relationship.

Some more recent initiatives in distance education have been less well accepted than the examples given above and critics have clamoured for “evaluation”. However, there are those who have a strong faith in distance education and believe it should enjoy the same status and parity as the traditional. Dr. Jevons, of Deakin University, Melbourne, summed up his perspective on the parity of the two systems this way:

If the “second best” image is firmly implanted on distance education, the reason is understandable, but it is historical rather than grounded in present fact. Distance education was first introduced for situations where traditional face-to-face education was impossible. Now, I believe, distance education deserves to be treated with equal parity of esteem.

The onus of proof is, as usual, on the new. The old is accepted without question. Often, I have found even experienced educators, who are often aware of what is or can be wrong with the traditional education, forget all about that when it comes to comparing it with distance education. Inevitably, distance education will come off second best if it is compared to a rosily nostalgic view of campus-based education in which no student and no teacher ever had an illness or family crisis; in which every student participates eagerly in tutorials, and avidly discusses work with other students late into the night; in which all teachers are in complete command over everything they teach and are adept at every pedagogic strategy and ruse. I have repeatedly asked, “If such a university exists, will some one please tell me where it is?” ...So far I have had no response.



Characteristics of distance education

So what are the characteristics that make distance education recognised as such?

“Distance” as in being far out of reach of the institution offering the programme is not necessarily a characteristic. But distance, in the sense that the learning does not take place in the host institution, is. Formal, accredited courses are normal offerings, with a specified enrolling date, and fixed return dates for assignments, attendance at seminars and assessment. Instruction is predominantly print based, with a growing complement of supporting media. Telecommunications has increased the variety of delivery mechanisms, with on-line, two-

way communication being the new frontier. Student support, via tutor contact, teleconferencing and video conferencing are mechanisms that are relatively standard practise in a distance education programme.

The degree of rigidity that regulates a course or programme is often determined by its nature. But once a significant amount of flexibility enters into the offering, it slides over the less than clearly defined boundary into the encompassing Open Learning. The following table illustrates the degree of control or flexibility generally associated with the concepts of traditional instruction and learning, open learning and distance education. It is not meant to be a clear “carved in stone” demarcation, simply a guide to your understanding of the characteristics of the concepts.

Every institution offering distance education as a study option has the opportunity of deciding how open or flexible their programme will be. To an extent, this will be determined by the courses and programmes “imported” from overseas and the restrictions the content and accreditation may impose. But given that some courses will not be bound by overseas accreditation, it could be within the power of the institution to decide what flexibility can be allowed, that will conform to any national requirements.

For example, if an imported course is being offered by a local institution, but the owner of the course is not responsible for accreditation, then the local institution can offer the course with a great deal more flexibility to the students. Commencement times can vary and completion times fluctuate, giving open entry - open exit capacity. The order in which units or modules are taken can be geared to the current specific needs of the student. This more flexible approach will be essential when competency based outcomes are a requirement of the course, and most trade based courses that might be offered, may have this requirement. Where this may appear to create problems of student tracking, computer management of student records can readily control this aspect.

Comparison of degree of flexibility in delivery options.

Traditional, on-campus learning	Traditional concept of Distance Education	Options possible in Open/Flexible Learning
Entry level qualification usually required	Entry level qualification usually required	No formal entry level required
Specific, specified place of instruction	No regular specified place of instruction	No regular specified place of instruction
Specified pace – set starting and completion times	Specified pace – set starting and completion times	No required pace – starting times and completion dates negotiated by learner
Set times for instruction	No set times for instruction	No set times for instruction
Content specified	Content specified	Content negotiated by learner
Standard student support	Set student support	Student has options of support
Learner assessed by instructor/examiner	Learner assessed by instructor/examiner	Relies on a variety of assessment, including self assessment
Assessment at specified time and place	Assessment at specified time and sometimes place	Learner negotiates when and where to be assessed
Sequence of study set	Sequence of study set	Sequence of study negotiated by learner
Specified time for completion	Specified time for completion	No specified time for completion – negotiated by learner

Requirements of a Distance Education System

Distance Education requires a special set of circumstances to make it efficient and effective - both from the perspective of the delivering institution and the student. The prime requirements are:

- Administrative infrastructure
- Courseware
- Tutors

- Systems of:
 - delivery
 - student support
 - assessment
 - record keeping
 - monitoring and evaluation

Administrative infrastructure

The administrative infrastructure is what will underpin everything about your distance education system. First, it will be based on the policies that are set, and these in turn will be based on what your Management believe the role of distance education should be for your institution. Once policies have been determined, the administrative infrastructure assists the implementation of those policies, by converting them to processes and procedures.

The infrastructure will be both physical and non physical and this means putting in place **any system** that will allow the public to become knowledgeable about the fact that this form of study is on offer, and then supporting them to select and successfully complete their chosen courses. Some of the more physical elements will be:

- the provision of hardware and software
- electronic linkages to host institutions
- telephone and/or teleconference links between students and tutors
- access to the physical facilities in the institutions
- accommodation and access to equipment that this offers for seminars, workshops and assessment

The non-physical infrastructure will consist of systems that accommodate:

- public relations / provision of information
- pre course selection counselling
- acquisition or development of appropriate courseware and additional resources
- storage and distribution of materials
- delivery strategies
- stock control
- enrolment procedures

- tutor recruitment
- student support
- assessment
- student records
- monitoring and evaluation
- reporting - internal and external

It is relatively easy to identify all the elements of operation that must be in place. The more difficult issue is determining **how** they will be accomplished and **who** will be responsible for making them happen. In a small system (such as what may be the case in your institution if distance education has not been offered before), it will be critical to make sure that responsibility for all processes and procedures are clearly delegated to specific staff.

In a larger operation, there are more people to share the load, but the fact is that the same systems need to be in place for a small operation as for the larger version. But it is the establishment of a good, strong infrastructure and its supporting systems that will enable the successful implementation of distance education.

Courseware

Courseware can be accessed from three main sources:

- Imported from another institution, either local or overseas
- Developed “in-house” as a home grown product from existing on-campus materials
- Developed “in-house” as a new course

Many institutions starting out in distance education choose to access materials from another institution and modify them to suit their particular needs. However, it takes time to locate suitable courseware and then to assess it to make sure it really suits your purpose.

Assessing courseware

If courseware is obtained from overseas, a critical process will be the assessing of its suitability for local conditions. We shall assume that the need for a particular programme has been clearly identified and you are now looking for courseware to meet that need – what do you want the course for – what do you hope it will achieve?

For instance, if a national priority is to increase tourism, but there is no one who really knows how to start the process or support it once tourists arrive, then maybe the first training requirement is in Marketing. The next need could be training for Tourist Agency personnel, then the more basic operations of tourism – hospitality, Eco-tourism, charter operations, etc.

If you understand ***what*** you want a course or programme to be able to do, then it will be easier to identify the courseware that will do it.

Having found a selection of courseware that may meet the need, the quality of the course needs careful scrutiny. Is it a quality programme if it does the job it claims? Can you tell what it claims? Checklists abound that help you determine whether a course has an acceptable quality. Using a checklist that you have amended to accommodate your own particular requirements can allow you to make a fairly professional assessment of its value to you. Module 4, ***Learning Resources***, offered some advice and assistance with this.

Modification of courseware

Often acquired courseware cannot meet the exact needs of the local situation. But the cost of developing materials, not to mention the time required, can be prohibitive, particularly when the target group is relatively small. (Whether ten students or one hundred students utilise the materials, the development cost is the same). If the materials have been acquired with the right to modify and reproduce, then the following areas need to be considered to localise them:

- do the objectives and outcomes of the programme satisfy the requirements of the local curriculum
- does the material cover all the content required
- is there extraneous material included not pertinent to the local conditions
- is there a need for additional reference material to be included to cover gaps
- does the study guide need to be re-written
- are there adequate activities, case studies that relate to the local environment
- can additional media be accessed to make the programme more motivating and interesting
- do modifications have to be made to suit the delivery mechanisms available

- is the reading level suitable for the proposed target group
- do the assignments and self-assessment items clearly support the objectives/outcome of the programme

Modification can be time consuming and requires a level of expertise that may not be readily available. A simple solution can be to use the acquired courseware as a resource, and write a study guide that helps students utilise the relevant sections and ignore those that are inappropriate.

Tutors

What are the basic functions of a tutor? Primarily, they can be classified into three groups:

- The supply of information
- Support to the learner
- Administration

The main role of the tutor is to help students get maximum benefit from their learning experience. This might include:

- Considering their needs and expectations
- Choosing the most appropriate programmes
- Deciding on a schedule for the programme
- Offering continued support, both professional and often more personal
- Determining future action/studies³

Systems

Distance education functions through a number of systems that together form the non-physical infrastructure. These were listed when we discussed Administrative Infrastructures, but the one that bears special mention here is that of *Delivery*.

Delivery Systems

In many instances, the programmes that can be offered will be dependent on the delivery mechanisms that exist to offer them. We need to investigate the mechanisms that your country has access to and

³ The Open College, *Tutoring Learners – The Blue Print Series, 1991*

determine what systems are feasible. Often the ultimate delivery mechanism for offering a course is simply not feasible in a particular situation, so alternatives have to be found. Or amendments have to be made to the course that do not jeopardise the quality and credibility of the course, but allow the interaction or feature to be accommodated.

Delivery mechanisms that exist, and are used extensively in distance education, encompass a wide range of interactive and passive media. These include:

Text

- Print based material
 - Specific distance education texts including Study Guides
 - Reference material – books, magazines, photo copied articles

Audio

- Telephone
- Teleconferencing
- Audio tape
- Radio

Audio plus visuals

- Television
- Video tape
- Video conferencing

Electronic

- Electronic mail
- Computer conferencing
- List servers
- Internet – WWW, Gopher



Activity 1

Which of the following delivery mechanisms are currently available to you?

Which would you consider interactive?

Media	Available in your Institution	Interactive
Text Print based material Audio <ul style="list-style-type: none"> • Telephone • Teleconferencing • Audio tape • Radio Audio plus visuals <ul style="list-style-type: none"> • Television • Video tape • Video conferencing Electronic <ul style="list-style-type: none"> • Electronic mail • Computer conferencing • List servers • Internet <ul style="list-style-type: none"> – Gopher – WWW 		

Discuss your responses with a colleague and with your tutor.

Section 2



Distance Education and TVET

Distance education has been used extensively and with success as a delivery mechanism in the academic field. However, implementing distance education in the TVET field has not been as common or as successful. The reasons for this are possibly two-fold:

- The practical nature of TVET subject areas, with the need for access to equipment and supervision, makes it more difficult to offer than academic subjects.
- Historically, both distance education and TVET have had less social acceptance than academic, on-campus education. So trying to put them together has possibly been more of a challenge than most TVET teachers would be prepared to accept.

But there are notable examples of practical, hands on based courses being offered by other than face-to-face instruction. The previous example given of the IGNOU programme testifies to this. It is also true that in almost all TVET subjects, some aspects that could be offered satisfactorily by distance education. We shall examine some of these possibilities.

What works well in distance education?

If we think about the traditional distance education programmes that we know of, we can identify what they actually contain and their characteristics.

- Information in a variety of forms:
 - text
 - illustrations/diagrams
 - tables
 - audio
 - perhaps video
- Dispatched via mail
- Requires written assignments returned to tutor
- Sometimes research
- Self testing exercises
- Sometimes attendance at seminars

That list will do for the purposes of this discussion. Now think about your own subject area. The chances are very strong that there will be some section of your programme that is theoretical or knowledge based and therefore very suitable for distance education delivery.

For example, consider hairdressing. Hairdressing is a very practical skill, but underlying that skill is a very definite knowledge base of hair types, product knowledge and fashion trends.

Building is also predicated on practical outcomes – like your new home. But again, there is a vast knowledge base associated with the successful construction of any building. To start with there are the regulations governing building in the area. There are timber types and their characteristics and types of joints. There is the development of plans and the math associated with this. The list of knowledge-based areas in building is significant.

All technical and vocational subject areas have a knowledge base – some more significant than others. These knowledge-based areas of your subject lend themselves very readily to delivery by distance education.

Now think about your own specific subject in terms of the competencies you had to achieve and the ***related knowledge you had to acquire*** which the competencies depended upon. Then complete the table below.



Activity 2

From your knowledge of your subject area, list six of the competencies that need to be mastered and alongside them list the knowledge essential to successfully achieve the competence.

Competence	Knowledge
1.	
2	
3	
4	
5	
6	

You will see from the list you have developed that there are many items in the knowledge column which would lend themselves readily to distance education delivery.

So while you may not feel comfortable about trying to offer your entire programme via distance education, some aspects of it could readily be delivered this way. This would mean your moving into a more flexible mode of delivery than what you are currently offering. Your students would not need to attend the institution as often as they do now, which would give them considerably more flexibility in their studies.



Why bother with distance education?

Having read through the implications of venturing into distance education, and the requirements of setting up a system, you would be forgiven for asking, “Why bother?”

Capacity

One reason is its capability of increasing capacity. There are not many countries that could boast they could accommodate all the students wishing to study in the technical and vocational fields at their institution. Offering part of your course by distance education can effectively increase the capacity of your facility.

Imagine you have a facility for your subject that only has teaching staff and accommodation for 15 students. Would it be feasible to double the size of the group and have 15 studying the knowledge base of their subject at home, while the other 15 are doing their hands-on work in the institution?

The immediate reaction of a lot of teachers to this suggestion is that it could not work. Consider the possibility very honestly, whether you like the idea or not, and list up to five reasons why you think it could not, or would not, work.



Activity 3

List four reasons why you think the knowledge-based part of your subject ***could not be offered*** off campus by distance education.

1 _____

2 _____

3 _____

4 _____

Now look at your answers and try to decide whether they are really issues that cannot be addressed, or whether the problems could be overcome if the Management and staff really wanted distance education to become a reality.

Are the issues to do with lack of infrastructures, expertise or finance or are they more to do with attitudes of staff? Lack of time, expertise and financial resources are problems much easier to overcome than attitudinal issues!



Responsiveness

Educational institutions today need to be more in touch with the needs of their client group. This is particularly true in adult education, where prospective clients have a particular purpose in studying.

Many of them are not free to spend time in a training facility as they have jobs to hold down or are committed to home duties. These may prevent them from spending daytime hours away from their employment or home.

It is no longer appropriate for an educational institution, as a provider, to have the attitude, “This is what we offer – take it or leave it”. It is now becoming necessary to listen to the client and say, “What is it you require?” “Can we help?” Often the response is a requirement for more accessible programmes. Distance education can help increase access to education and training by allowing programmes to be offered at times and locations more convenient to students. It may still be a requirement of your programme that students need to attend the institution for practical sessions, but even offering the more theoretical aspects by an alternate method may make the difference between some students being able to undertake the course or otherwise.

Equal opportunity

Some prospective students or clients are in a disadvantaged situation. These might include:

- house-bound women with young families
- men and women who are too distant from an educational institution to be able to study by conventional methods
- shift workers whose free hours do not correspond with those of the institution
- many who are really just too nervous and insecure to see themselves sitting in a classroom as an adult

Distance education can make the offerings of a programme flexible enough to allow these people to study outside the institution. In doing this, and with the correct support, their confidence will improve with the small successes that are possible in well-structured distance education programmes. Ultimately, they may develop a totally new attitude to study and educational institutions generally.



Activity 4

Go back to the Exercise 2.1 where you nominated the knowledge based areas of your subject. Select four of them and indicate how you might “teach” these areas using distance education. What methods or techniques would you use? Unit 6.1 ***Learning and Communication*** offered a number of options that you might recall to help you decide this.

Knowledge area	Distance education methodology
1.	
2.	
3.	
4.	



Utilising available resources

As we know, technical and vocational subjects are heavily predicated on practical competencies. These make TVET difficult to offer by distance education. While it is easy to see how the theoretical aspects could be offered by distance education, it is not as easy to see how access to equipment for practise might be organised.

Each community does have a vast pool of resources that could be harnessed to assist in the offering of education and training. One of the reasons these have not been utilised more profitably is a lack of communication and a history of distrust that has existed between educational institutions and the private and wider public sectors.

Of course there are very valid reasons why a manufacturing plant for example will not open its doors freely to trainees - be they teenagers or

mature adults. Safety is a good example. It may be impossible to train a person completely enough in the safety issues of a plant to make it worthwhile to accommodate them for very short periods.

Lack of time to spend with students is also a valid reason for an enterprise to be less than cooperative about having students, as with all enterprises, time is money.

Regulation, which prohibits untrained personnel from working in particular fields, can also be a barrier. Childcare is strictly monitored in some countries and only people who are registered carers can be allowed to care for children.

Union regulation is another stumbling block to access to practical training and experience. Some unions are very clear in their guidelines on this and prohibit the presence of non-union labour on any site or job.

But the value of utilising outside agencies to access practise in the skill areas cannot be overlooked. And it can be accomplished if there is a strong enough commitment. One of the major benefits is that students have access to the real world of work situations, and there can be no substitute for this.

Another benefit is that students have an opportunity to “prove” themselves to possible employers. And employers have the opportunity to meet a range of possible employees in a valid setting, over time, rather than in the artificial situation created by interview.

Access to practical work off-campus

So how does a teacher or trainer go about gaining access to practical experience for students? This of course depends on the subject area. Part of the strategy can depend on personal contacts. If you are from an industry sector, chances are you will have maintained links within your industry over the period you have been teaching. The following may prove to be a handy guide in establishing or re-establishing links.

The first steps in establishing practical sessions in the private sector:

- Talk to other teachers in your subject area – in your institution and in other neighbouring institutions offering your subject. Explain your intentions of offering a programme off-campus by employing distance education techniques. Determine their interest in a possible collaborative venture.

- Contact industry /private sector representatives and explain the reason for requesting placement for students. You will need to know how many students might be involved and are reasonably accurate about an indication of time – both before and during the programme, and what your expectations of the employer are.
- If a large group of students is concerned, it may be appropriate to see if you can organise a meeting of representatives from as many individual enterprises within an industry as possible

Discuss your proposal from as positive a position as possible – what would be the benefits to the enterprise? For example, some of the benefits might be:

- Benefit the industry by assisting in the training of new recruits as industry would wish them trained
- Establish strong links between the training institution and the industry it serves
- An extra pair of hands at nominal cost
- Creation of an opportunity for existing industry staff to gain supervisory/training experience
- Assists in creating (or strengthening) an industry based self interest group
- Offers the enterprise an opportunity to contribute to the HRD of the country
- Profiles the enterprise within the community

A case study

A case study, which bears reporting, was undertaken in the far North of Australia. This took the training of a special group of Automotive Mechanic apprentices from the traditional Technical and Further Education (TAFE) institutions and placed the training in small automotive garages and workshops in isolated areas.

The rationale behind the experiment was to try to offer Australian Aboriginals and Torres Strait Islanders the opportunity to take up a certified training programme without leaving their communities. It had been identified that this group was under-represented in the number of qualified Automotive Mechanics in the country. It was anticipated that this model would rectify the issue.

The Model

Briefly, the model involved:

- Development of text based training materials which covered the entire 24 modules of the apprenticeship programme
- Identification of existing videos to cover the subject areas of the programme and align with the modules
- Development of a training manual to train supervisors in the workshops
- Nomination of participating workshop sites
- Nomination of the new “trainers” within the workshop sites
- Identification of trainees
- Negotiation with the Aboriginal Community leaders re the logistics of the training venture
- Training by the supervising TAFE institution of the workshop “trainers”
- Supply of training modules and videos to all trainees via their workshop supervisor
- Commencement of training utilising the training modules for theoretical work, supervision of practical work by the workshop trainer and log books to record trainee practise
- Assessment by the supervising TAFE institution

The problems

This programme, although very successful, was too expensive to sustain.

The requirement that a TAFE supervisor had to assess the trainees meant that the assessor travelled thousands of air miles over the Northern part of Australia and its off shore islands. This was a requirement of the model. As the trainees were guaranteed that the qualification would be Nationally recognised, it therefore required assessment by a recognized authority. The TAFE institution represented this authority.

The learning Modules, some of which contained 14 Units, were in colour, so were prohibitively expensive to reproduce for students and required specialised facilities to do the copying.

The solutions

These problems could have been overcome. The materials were ultimately re-developed into black and white copy so could be duplicated on any photocopier. This reduced the cost per student copy dramatically.

The problem of the cost of the TAFE assessor was not easily resolved, but there were options. One option would have been for the workshop supervisors who trained the trainees to have assessed the trainees' competence and granted them a limited accreditation at a local level. As Recognition of Prior Learning (RPL) is available in Australia, any one of the trainees wishing to practise their trade in the wider field would only have needed to apply for RPL assessment to have their competencies assessed against the Australian National Standards.

If their training was effective, and the assessment genuine, then these young people could have been accredited as fully qualified Automotive Mechanics once they completed the entire programme.⁴

⁴ Australian Automotive Integrated Training System, (AMMITS)



Activity 5

Do you think the suggestions given as solutions are viable options?

Write a short statement to support your viewpoint.

Could a similar model be used in your industry? Briefly explain why you believe it could be suitable or why you believe it would not work satisfactorily.

Thinking of your own area, choose a subject or programme from it, and think about how you might try to offer it by distance education with the help of the private sector.

What would be the most significant barriers or obstacles you would have to address to achieve its successful implementation? Make a list of some of the items you would need to address. You will use this information later in your assignment.



Student Support

The most critical aspect of helping distance education students to complete their chosen programme is in the support that is offered to them. This falls primarily to the Tutor. This would be true for the theoretical aspects as well as the practical aspects.

Tutor responsibilities

Subject knowledge/courseware familiarity

Thorough expertise in the subject matter is essential to be able to assist the students with any content aspect they may wish to clarify. Their question may be outside the content of the materials and relate to more up-to-date information, which a tutor fully qualified and experienced in the subject matter would be able to accommodate.

As well as being a subject expert, tutors also need to be familiar with the course materials being offered and the administrative requirements. Only with this knowledge can a tutor be in a position to prompt students and keep them on track.

If in studying the courseware, tutors find areas where they are unfamiliar, there is a responsibility to research this aspect and ensure they are as knowledgeable as possible. Should students require information that is not within the content of the materials and the tutor does not have the answers, there is no shame in admitting this. But promising to seek the answers or solutions is an honest reply that will maintain student confidence in the tutor.

Other aspects of tutoring

The responsibilities of the Tutor are many and include:

- Providing information on:
 - administrative requirements
 - course content
 - assignments, examinations, assessment
 - further reading
 - access to equipment
- Offering help to:
 - getting started
 - learning/study skills
 - essay writing
 - practical work
- Establishing networks for student support
- supporting students by:
 - being available when students enrol to introduce yourself, assist with administrative procedures
 - facilitating and leading group discussions
 - being a first contact for students
 - establishing a social framework for students to get to know each other
 - providing telephone /email /personal counselling

Recognising the special needs of distance education students

Distance education students usually have a keen sense of motivation that they bring to their first experience of distance education. Whether this motivation is maintained depends on how well they can overcome the special problems they will encounter, and how much support they get in doing so. Possibly some of the most significant of these problems are:

- isolation
- lack of group identification
- need for interaction with tutor and other students
- difficulties of establishing appropriate study habits
- commitment to family and job
- the need for:
 - constant help, guidance and encouragement
 - strong two way communication
 - prompt feedback
 - confidence in their tutor
 - lack of suitable place to study (including no access to good light at night)

Marking assignments

This is the aspect of a distance educator that creates the strongest connection between tutor and student. The student waits impatiently (often unrealistically so) for the return of their assignments. The feedback that comes with the assignment has a very significant impact on the work that will follow. Tutors need to be sure that when marking assignments they consider:

Speed of return

An acceptable return must be determined for each situation, given the infrastructures and locality. Students must be informed of whatever the rate is that they can expect as the norm. Tutors should try to comply with this.

Praise

Any student who manages to complete an assignment and have it in on time deserves some praise. It is essential to find something good to say about the paper or project that will allow the student to feel good about the effort made. Total negativity will discourage a student very quickly.

Constructive criticism/tone of comments

Hand in hand with praise goes constructive criticism. It is important to offer advice for improvement, rather than direct criticism.

Personalised comment

Be sure to “talk” to your students when commenting on assignments. Write in the first person and take the time to use their names, so that

they understand that you know to whom you are addressing the comments.

Conducting tutorials/seminars/practical work

Much of the responsibility for conducting seminars and organising access to practical work falls to the tutor. Activities that lend themselves to tutorials/seminars are:

- Practical work
- Discussion
- Presentation of papers
- Analysis of case studies
- Debates
- Problem solving
- Demonstrations
- Use of specific equipment

Tutorial/seminar/practical work preparation

Being well prepared allows a Tutor to feel confident. It allows a tutor the freedom to be relaxed, knowing that all is well planned and the planned sessions will not get off track. Issues that tutors must accept responsibility for include:

- Setting the objectives
- Organising the facility, adequate space, furniture, temperature comfort, noise level
- Notification to students of location, time, date
- Sign posting if necessary
- Administration
- Equipment and consumables
- Time tabling, break periods, refreshments
- Accommodation if necessary
- Hard copy handouts
- Programme details
- Evaluation
- Arrangements with the enterprise if the practical work is to take place there



Activity 6

At the end of a tutorial or seminar, how do you know if it was a success? Think about the indicators that would tell you how your students really felt about the experience.



Summary

The preceding sections of this unit have tried to outline the characteristics and features of distance education, and how this method of delivery may be utilised in the delivery of technical and vocational education and training.

It has provided examples of how alternate methods of delivery have been used by some training institutions to help overcome the problems of distance and accessibility, and encouraged your thoughts on the models presented.

It has also covered the issues of the requirements of a distance education system and the need for strong student support – a function in which the tutor plays a major role.

It has encouraged you to think about the possibilities of distance education in your own institution or organisation as a viable option for at least some part of your programmes, with the resulting benefits.



Assignment No. 6.2-1

Unit 6.2 Learning and Communication

You are now required to do the Assignment 6.2 – 1 that will be found at the end of this unit or distributed by your Tutor.

Section 3



Roles and responsibilities

One of the difficulties of describing roles and competencies in distance education is that the field itself is changing rapidly, as it expands into new areas both geographical and educational, and as established distance education programmes reassess their goals and consequently their systems and structures.

O'Rourke, 1993

Although this statement is true, there are certain roles and functions that must be performed to allow distance education delivery to occur, even if the system is very small.

Most of the tasks are already performed, to some extent, by teachers, but they become critical when students who are not on campus, depend on the system working efficiently and effectively. The roles include:

- Leadership/Management
- Administration
- Counselling
- Subject Coordination
- Curriculum Development
- Instructional Design
- Teaching, tutoring, student support
- Coordination
- Research and evaluation

In a small system, the roles may not be exclusive to one person. Sometimes one member of staff will be responsible for a number of the functions. For example, one person may have to act as the Leader, Administrator, Public Liaison and Counsellor for students.

As you read through these roles and responsibilities, think about who might do these in your institution if you were to offer some part of the programme in your specialist area via distance education.

Definition of Roles

Leadership/Management responsibilities

There is a need in an institution for a person who will become the champion of distance education if it is to be a successful delivery option and if teachers are going to feel supported in it.

This person, usually someone in a Management position, must have the vision to understand what distance education can achieve. They should have a “feel” for the scope and potential that can be achieved in their own organisation. They must have an understanding of who the prospective clients might be, and what their needs are.

They must also have the authority to make decisions and to approve expenditure. This is why it is important to have someone in the institution from a Management position. The best of intended teachers could be 100% behind the notion of introducing distance education, but without the authority to make the conclusive decisions, it is more difficult to get started. The responsibilities that a person in this role would fulfil include:

Responsibility for the development and monitoring of policies regarding:

- The scope and nature of the operation
- Population to be served
- Relationship to existing programmes
- Certification and accreditation
- Budget allocation
- Ongoing financial arrangements including student fees, special grants
- Identifying and recruiting staff
- Establishing systems and procedures
- Staff development
- Planning

Administration responsibilities:

The person who would actually administrate the implementation of distance education need not be a teacher, but it is often an experienced teacher who fulfils this role. They would need to have a sound

knowledge of the workings of their institution and understand the impact of distance education on the staff and the organisation itself.

They would need to be competent administrators and be able to identify and understand the requirements of any systems that need to be put in place to make this form of delivery work. They should also be able to identify the training needs of the staff that will be involved, as competent staff will be a key factor in the success of implementation.

The roles an administrator must accommodate include:

- General coordination
- Monitoring advertising/marketing
- Monitoring provision of information
- Problem solving
- Initiate development of policies re:
 - Enrolment
 - Duration of courses
 - Discountenances
- Enrolment
- Student records/tracking
- Assignment processing
- Registration of tutors
- Monitoring of:
 - Examination/assessment procedures
 - Resources required by students and tutors
 - Student support/liaison
 - Complaints
- Stock control – materials and equipment
- Staff development

Public Relations/Liaison

The person responsible for Public Relations will be the external voice of the institution and will be responsible for creating the image that the public develops of the opportunities distance education can offer.

Connections with the private sector and other public utilities such as libraries and other schools assist in disseminating information.

A Public Relations officer would be responsible for:

- Advertising
- Marketing
- Provision of information
- Media Liaison
- Monitoring the development and production of advertising material

Subject expert/teachers

This role is critical to the delivery of distance education programmes as it is in a face-to-face situation. But the role is somewhat different. In face to face the subject expert is an instructor or teacher. In distance education, although the concept still applies, it is a more indirect method. So it is a new role for what is normally that of a teacher. This person would be involved with:

- Selection of programmes and courseware
- Evaluation of courseware
- Assessment
- Monitoring of standards
- Design and development of courseware
- Facilities and equipment for workshops and seminars
- Advice on scheduling

The role of the subject expert and that of the tutor may be performed by the same person, but because this is not always so, the functions have been separated.

Curriculum Development

The first distance education programmes offered by your institution in your subject area may use “imported” courseware. But as you develop the systems needed and identify the expertise available for the delivery

of courses, it will be a logical step that ultimately, “home grown” courses will be offered.

But even if you never offer your own courses, there is a need for the skills found in the functions of curriculum development, in the offering of imported materials. Some of these functions may include:

- Establishing the learning and delivery needs of clients
- Task analysis
- Writing of:
 - Objectives
 - Standards
- Identifying programmes and courseware
- Selecting courseware
- Aligning imported programmes with local requirements
- Liaison with subject expert, instructional designer, and administration

Instructional Design

The functions of instructional design are a subset of curriculum development and can create a most significant link to the students. Well-designed course materials recognise the student as an individual and “talks” to them in the first person. This can set a climate for the relationship that will develop between the student and the institution.

Although the tutor plays a vital role in the establishment of the relationship, the student spends much more time in interaction with the materials than with the tutor. This is a critical role in the system of distance education. The functions do overlap with that of the curriculum developer, and in reality, complement each other.

These functions include:

- Interpretation of the curriculum
- Specifying content of course materials
- Development of competence elements
- Modification of courseware to suit local requirements
- Specifying media
- Design and development of courseware
 - Course maps
 - Text based instruction

- Video
- Audio
- Identification of additional resources
- Design of assessment instruments/methods
- Identifying production methods
- Monitoring production of courseware
 - Designing and specifying house style
 - Drawing up a work schedule
- Monitoring/piloting of courseware
- Determining student support

Teaching/tutoring/ student support/counselling

This role was discussed in detail in the previous section under Student Support. We also listed the basic functions of a tutor when we discussed the requirements of a distance education system. They were:

- Supply of information
- Support to the learner – in the start and during the programme and through the assessment of assignment work
- Administration – maintaining records, organisation of seminars etc.

Re-read the section on Student Support if you need to refresh your memory of the roles and functions of the tutor

Research and Evaluation

To keep distance education offerings relevant to the students requires evaluation of the existing programmes and research into potential new ones. The functions required to fulfil this role include:

- Monitoring student participation and progress in completion/participation rates
- Assessment of the validity of courseware against local requirements
- Recording statistical information i.e. gender, age, first experience with distance education, level
- Report writing
- Identification of new courseware
- Researching potential markets for new offerings

It is essential that all these roles and responsibilities be covered, even in a very small-scale system. As mentioned earlier, staff may be required to take on more than one role, but unless someone has the responsibility for each of these elements, there is a high potential for problems to develop.



Activity 7

Alongside the following list of tasks, insert the role of the person(s) responsible for performing that task.

Task	Role of person responsible
1. Specifying media for learning experience	
2. Certification and accreditation	
3. Student records	
4. Assessment	
5. Programme selection	
6. Monitoring production of materials	
7. Complaints	
8. Provision of information to public	
9. Writing objectives	
10. Budget allocation	
11. Enrolment	
12. Evaluation of courseware	
13. Monitoring standards	
14. Recruiting staff	
15. Stock control	
16. Staff development	
17. Modification of courseware	
18. Planning	
19. Media Liaison	
20. Task analysis	



Assignment No. 6.2 - 2

Unit 6.1 Learning and Communication

You are now required to do the Assignment 6.2 – 2 which will be found at the end of this unit or distributed by your Tutor.

Solutions to Activities

Activity 1, page 19

Discuss your responses to this exercise with your Tutor

Activity 2, page 23

No definitive answers to this exercise as it is based on your own experience. Ask a colleague to check over it with you

Activity 3, page 24

Again this is a question that should be discussed within your own organisation and with colleagues. Your Tutor or a mentor would also be a good person to discuss these responses with.

Activity 4, page 26

Discuss your answers with your Tutor or a colleague.

Activity 5, page 31

Keep your responses to this exercise, as it will become the basis for your assignment.

Activity 6, page 35

Discuss your answers with your Tutor or a colleague.

Activity 7, page 43

Compare your answers to those in the table on the following page

Alongside the following list of tasks, insert the role of the person(s) responsible for performing that task.

Task	Role of person responsible
1. Specifying media for learning experience	Instructional Designer
2. Certification and accreditation	Management
3. Student records	Administration
4. Assessment	Subject Expert
5. Programme selection	Subject Expert
6. Monitoring production of materials	Instructional Designer
7. Complaints	Administration
8. Provision of information to public	Public Relations
9. Writing objectives	Curriculum Developer
10. Budget allocation	Management
11. Enrolment	Administration
12. Evaluation of courseware	Subject Expert
13. Monitoring standards	Subject Expert
14. Recruiting staff	Management
15. Stock control	Administration
16. Staff development	Subject Expert
17. Modification of courseware	Management
18. Planning	Management
19. Media Liaison	Public Relations
20. Task analysis	Instructional Designer

In reality, some people may perform more than one task, but the role they are performing in is the one that you should have listed.



Assignment No. 6.2-1

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

Fill in the blanks in the following sentences, using the words from the list below.

Distance education can be described as:

1. The opportunity to study _____ from the institution offering the programme.
2. An alternate _____ for education.
3. A system of instruction based on _____.
4. A strategy of instruction that allows for _____.
5. A system of delivery requiring _____ and administrative support.

Increased access; delivery mechanism; strong infrastructure; self study materials; physically removed

5 marks

Question 2

List five (5) features or characteristics of flexible delivery/learning and distance education that highlight the differences in their approach.

10 marks

Question 3

Considering your area of specialisation, write a short description of a programme or course offered in your field, including:

- title
- level
- duration
- description of target audience
- basic content
- type of practical work
- specialised equipment or machinery required
- identification of safety elements
- level of supervision required for practical work
- areas that would be difficult to be offered by distance education*
- areas that would lend themselves to distance education delivery*

*Include reasons for your answer

25 marks

Total 40 marks



Assignment No. 6.2-2

Unit 6.2 Delivery Mechanisms

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 programme you identified in Assignment 6.2-1, Question 3. Identify at least two elements or sections (theory and practical work) and describe how you would offer them by other than the traditional method.

Include in your answer a description of the delivery and communication modes you would use and explain why you have selected these.

For the practical areas, explain how trainees would gain access to supervised experience and how the use of any facilities in the private sector could be utilised to support this.

Your response should be in a well-constructed statement of approximately 500 words

30 marks

Question 2

For the above example, explain, in about 300 words, how the students would be supported in their distance education or alternate delivery studies and what mechanisms would need to be put in place to implement the level of support advocated.

30 marks

Total 60 marks