

B.ED NON FORMAL PROGRAMME
DE – 522 Educational Technology (ET)

ASSIGNMENT # 1:

Q1: - Define the term Educational Technology in the perspective of modern education?

Ans: -

Educational Technology has assumed greater importance for achieving desired goals for universalization of education, for preparation of teachers and for upgrading curricula in all phases of education.

Modern Media, Methods and Materials which constitute Educational Technology or at all stages of Educational Technology has, therefore, not only merged as an prospective subject but also proved a potential instrument for bringing about desirable changes, both qualitative and quantitative, in the Educational Arena.

Educational Technology also implies the use of all-modern media, methods and materials for maximizing the learning outcomes. All the educational resources... men and materials, methods and techniques, means and media need to be utilized in an integrated manner for ensuring optimization of learning. These include various methods of teaching, audio-visual aids and materials for the effective and efficient teaching – learning process.

They also comprise both software and hardware. Big media and little media have occupied nowadays a predominant place in the field of Educational Technology. Coombs (1935) has rightly observed, ‘people tend to equate the Education Technology with the new media and electronic devices that have grown out of the post-war communication revolution-television and miniaturized radios, audio and videocassettes, teaching machines, language laboratories, computers and communication satellites’.

The Education Policy (1972-80) emphasized the need for the Educational Technology, having viewed the challenge of the time. The policy stated:

‘Modern Technology has placed, at the disposal of educationists, tools and techniques of great reach and effectiveness’.

People do not need now to leave their work at homes to obtain education. Exceptionally talented teachers and modern facilities for teaching and demonstration have come within easy reach of the masses through the powerful

media of radio, television, films and a host of other instructional aids and devices. Potentialities of the modern Educational Technology will be fully exploited to improve and expand both formal and non-formal Education.

According to Unwin, (aspects of Educational Technology 1967). 'Educational Technology is the application of the modern skills and Technology to the requirements of Education and training including the facilities of learning of manipulation of media and methods and by the control of the environment where this reflects on learning'.

Educational Technology as considered by John Leedhan ("Programmed Learning some Basic Considerations" 1971) concerns "the systematic use of modern methods and technologies in teaching and learning. It involves teachers in a variety of roles, some of which are traditional, some still emerging".

A more comprehensive concept according to Dr. Azhar Rizvi ("Teaching Aids to Teaching at Higher Educational Levels", 1978), is "the strategy of improving the quality of education, by adopting new methods and techniques of teaching, leads us to field of instructional technology with its activities ranging form the preparation of simple in-expensive aids to a whole array of machines such as radio, television, tape recorder, the film projector and other devices in Programmed Learning, Computer Assisted Instruction (CAI) and Language Teaching Laboratories. These aids can be used by a teacher to make his teaching more interesting and meaningful. They are variously known as audio-visual aids. 'Multisensory aids or educational media' and are now subsumed under a recently developed discipline educational technology".

Q2: - What are the important Learning strategies? How a willing learning strategy can be helpful in learning process?

Ans:-

Throughout instruction, we shall examine how the able instructor can employ not one but six different learning strategies. If we look first at the ingredients for learning we see that effective learning requires:

- A willing learner, because if somebody does not want to learn, they won't;
- An able instructor;
- Clear objectives, because in both cases the alternative is not sustainable on moral, ethical, lawful or 'professional practice' grounds;
- Access to learning strategies, because the trainer must be ready to respond as flexibly as possible to the learner's style of learning, the learner's learning difficulties and the learning opportunities as they arise.

As most trainers will agree, effective training is directly related to the quality of preparation. As far as practical, this means:

- 1 Preparing the learner to learn by:
 - understanding the learner's difficulties and aspirations in relation to the training need;
 - individual counseling;
 - assisting the learners to 'warm-up' sessions focused on tension relief and relaxation;
 - learner undertaking prior study to bring the learner up to a 'common level', to assist with an 'accelerated start' or to provide an 'experience base' from which to comment, question and reflect.
- 2 Creating an effective learning climate by:
 - helping learners to feel relaxed enough to 'learn', and yet 'ready' to challenge their own and other people's ideas;
 - helping learners to change without damage to the individual's reputation and self-esteem;
 - Paying attention to the learner's emotional state and their level of competence.
- 3 Preparing effective learning materials

The old maxim that to be able to reach a subject you must first study it thoroughly could not be truer. Even with 'ready made' learning packages the trainer can support them only if she/he has used them and understands the learning boundaries of the programmed.

Below is a list of practical observations and good practices that find common agreement amongst experienced instructors.

A WILLING LEARNER

Voluntary

Remember: learning is a voluntary process. If a person decides not to learn, there is little anyone can do.

Doing

Many of us learn best by doing. Whatever a person learns, he/she must learn for him/herself, no one can learn for him/her.

Rate of learning

Each person learns at his/her own rate.

Reinforcement

A person learns more when each step is immediately strengthened or positively reinforced.

More or less permanent

Remember: learning is a more or less permanent change in behaviour as a result of experience. If a task has not been performed for some time, be prepared to help the person learn again.

Why

Explain why a job is performed; this helps connect the mental and physical requirements of the task and bring meaning and relevance together to form a whole.

Enjoyment

We learn when we enjoy it, and in this sense, encouragement helps and discouragement usually hinders the learning process.

Involvement

We learn when we can use our mind, body, values, feeling, intuition, imagination, and senses – sight/sound/hearing/touch/smell.

Growing

We learn when we know we are developing and growing as a person.

Objectives

We learn when we have objectives that are demonstrably achievable.

Check starting point

A person can learn only in relation to what he/she already knows. When training, check and test out the starting point of the person's knowledge, skill and attitude.

Fully train each step

Full, rather than partial mastery of each step, makes total learning more meaningful.

Simple to complex

If a person is learning a procedure of tasks, proceed from a whole view, to a more detailed view, and then back to a whole view, where there is complexity, then proceed from the simples. Reassure the person that it takes several attempts to learn a whole chain of tasks.

Quality

When discriminating between acceptable and unacceptable quality, take time to explain, show and allow the person to experience the differences. When ready, allow the person to discriminate between good and bad quality, and let the learner use his/her own words to describe the differences. This is vital.

Diagrams

Be prepared to use diagrams, pictures and flow charts to help with learning quickly and effectively.

Use learner's insight

Be prepared to ask learner to contribute towards new ways of learning.

Mistakes

We learn from our own and others' mistakes and from trial and error experiences.

Q3:- Discuss the term communication and highlights its elements?

Ans:-

The communication process constitutes the exchange of information between two or more people. The main purpose of the communication process is to provide an understanding of information, which is the subject of exchange through messages. But the fact that information is exchanged does not guarantee the effectiveness of communication. Of course, everyone has encountered cases of ineffective exchange of information with friends, family, employees etc. For better understanding the process of sharing information and what factors make the communication effective, one should be aware of the stages of the communication process. Information exchange could be divided into four basic elements:

1. The sender-a person who generates ideas, or collects information and re-authorizes it.
2. The report-the actual information encoded using symbols.
3. Channel-a means of information transfer.
4. Recipient-the person to whom the information is interpreted.

During information exchange, the sender and recipient go through several interrelated stages. Their task is to elaborate the message and use the channel for transmission in such a way that both parties understood and shared the original idea. It is difficult, because each stage is also the point at which meaning can be distorted or completely lost. Information exchange begins with the formulation of ideas or the selection of information. The sender decides which meaningful idea or message should be the subject of exchange. Unfortunately, many attempts to exchange information are cut off at this first stage because the sender has not spent enough time to think about ideas.

To effectively implement the exchange, a set of factors must be taken into account. For example, a manager who wants to share information on the evaluation of the work must clearly understand that the idea is to communicate to subordinates specific information about their strengths and weaknesses and how their

performance could be improved. The idea may be the general praise or criticism of the subordinates' behavior.

The Elements of Communication

Sender
Sender's Meaning
Information
Representation (including Modality, Format and Medium)
Departure
Transmission
Receiver
Arrival
Perception
Information
Receiver's Meaning
Processing Information

I will comment below on each of the elements shown above. However, when discussing one element, I will frequently refer to others. This is because they are not mutually exclusive; indeed, they are considerably interlaced. Completely separate discussions would therefore be artificial, if not impossible, and would also result in a lot of repetition.

Sender

In most situations, the sender must possess some cognitive capacity, as the information will usually need to be processed and directed to some extent. Sometimes, part or all of that processing may be provided by someone other than the sender, who will then require fewer innate resources.

While communication between people must have at least one person at each end of the process, some of the steps in the process can be provided by a machine, and often are. In unusual circumstances, some of those steps could be provided by an animal (such as a St Bernard rescue dog) or conceivably by inanimate objects. The concept would still be the same.

Sender's Meaning

Meaning is a word most people use quite often, and usually without the slightest uncertainty about its – er, meaning. It is not uncommon to advise a child, or for that matter an adult, to "say what you mean – and mean what you say". This sounds simple enough, but the more you think about it, the more this idea of meaning seems like anything but child's play.

Meaning is generally agreed to exist, but it is rather hard to pin down. Even within the mind, what form does meaning take? Sometimes, the meaning in our minds is represented in a form reminiscent of one of the five senses. Alternatively, we might represent it in words, numerals or other symbols. However, some ideas simply do not fit those forms; they are abstract. These abstract ideas certainly have meaning for their owner, but I wonder how they could be transferred to anybody else.

Indeed, the transfer of any idea to another person raises quite a few questions. In the absence of telepathy, an idea surely could not get into another mind unless it had

somehow got out of the first mind and crossed whatever it is that separates the two minds. How could that be achieved? At the very least, the idea would need to be represented in a form which could exist outside the first mind and be accessed by the second mind.

Well, I guess it's a good thing I promised to refer to all the wrong terms under all the right headings, because I have already started doing just that. Two examples of representation have crept into this discussion of meaning – representation in the mind, and representation outside the mind. To add confusion to complexity, any type of representation, and also whatever it is representing (or re-representing) is sometimes referred to as information, which is my next topic.

Information

Information is another common word, but, like meaning, it can get a little complex if you think about it much. In general usage, depending on the context, information can mean a message received and understood, a collection of facts from which conclusions may be drawn, or knowledge which has been acquired in some way, such as by learning or experience.[2]

In the above examples, information is a rather abstract idea. For example, the information in a bank statement is a sort of virtual counterpart to the numbers on the paper. However, the bank statement itself might also be referred to as information. Instead of saying "Here is a document in which the information you require is represented as alphanumeric symbols printed on paper" we might just say "Here is the information you require".

Quite a few other words can be used as synonyms for information. It is sometimes called content, substance, message, or even (with some help from the context) thing. I hope all this doesn't seem too clear, by the way. If it does, I can only apologise. I will do my best to remedy the situation, starting with an example which should take the level of confusion to new heights.

There are two very important caveats, though.

The first is that, while meaning may be closely related to information and representation for a given person, my meaning may not be closely related to your meaning – even when the information and its representation are the same. The second caveat is that, while there are many ways of representing and re-representing information, they are all equally useless as regards communication unless they are transportable.

Representation

From the point of view of the basic communication process, the element which I have called "representation" means a transportable representation as mentioned above. Of course, if the information is already represented in a transportable form, this step is conceptual rather than actual. However, if it is not, then a transportable representation must be created.

It would be more logical, really, to talk of re-representation (unless referring to the very first representation of an idea in its owner's mind). Indeed, there are layers and layers of different representations possible for any given piece of information. In the mind, some ideas have an abstract representation. Others are represented as pictures, sounds, feelings, tastes or smells. Still others are represented in the form of words or numbers.

Some information needs to be re-represented in a carefully chosen way in order to make it transportable. On the other hand, some things are in a transportable form when we first encounter them. For example, a painting, which is a representation of something seen or imagined by the artist, could simply be carried or mailed to the receiver.

The resulting document might be handed or posted to the receiver. Alternatively, it might be further re-represented on microfiche, having the same appearance when magnified, but taking up very little room when stored. On the other hand, it might be re-represented, via a digital camera, as a digital image file. If retyped on a word processor or computer, it could be re-represented as a digital text file. The last two can be sent by any method capable of transferring binary data (e.g. e-mail).

In other words, this representation step can vary from not being necessary at all, to involving quite a complex procedure. Talking of complexity, I think this is a good time to fulfill my promise to show how some other communication terms can be made at least partially compatible with the model of communication I have been describing.

The terms I have in mind are modality, format and medium. I have avoided these terms simply for the sake of clarity, because they are used differently by different authors when discussing communication, in addition to having quite a few other meanings in other contexts. However, I will say a little about them here, and then I will leave them in peace again.

Modality

The representation of information is sometimes called the modality of the information. However, when applied to communication, the word "modality" is also used to refer to the type of information, the sensory system receiving the information, or the combination of a type of representation and its physical form or vehicle. In general usage, modality has still other meanings, often carrying a sense of category, sort, type or method. Therefore, when the term modality is encountered, it is important to remember that, unless it has been defined by the author, it might mean almost anything.

Format

Format is another term which is sometimes used for a representation, or alternatively for a representation plus its physical form or vehicle. The general usage of the word format has to do with how things are arranged and presented, and it also has various specific meanings unrelated to communication. It is thus at least as variable in meaning as modality, so it also needs to be defined whenever it is used.

Medium

Like modality and format, medium has numerous general meanings, as well as various specific meanings when applied to communication. In the latter context, it often refers to a transportable representation – but not always.

Departure

As soon as the information is represented in a transportable form, it is ready to be dispatched. Although obvious, this step should not be taken for granted, because it is the last chance to reconsider the undertaking. It is usually not possible to recall information once it has been sent, so if there is any doubt about the wisdom of sending it, this is the time for second thoughts! After that, the sender simply has to perform whatever action is necessary to start the chosen method of transmission.

Transmission

The transportable representation now has to be moved from sender to receiver. This is generally referred to as transmission. Transmission can be as easy as handing over a letter, or as complicated as sending radio signals to reach an astronaut in space at a given time and location. In either case, the concept itself could hardly be simpler. The remaining steps must then be completed by the receiver.

Receiver

Whereas some (or conceivably all) of the sender's tasks might be performed by external agencies as discussed previously, there are three things which the receiver cannot delegate. The receiver must be sufficiently accessible for arrival to occur, and must also possess and employ both sensory capacity (so that the represented information can be relayed to the receiver's brain) and cognitive capacity (so that the input received by the brain can be processed sufficiently to be understood). These are the prerequisites for the perception step discussed soon.

Arrival

As mentioned above, the receiver has an indispensable role in enabling the arrival of messages. That role is to be accessible. Accessibility can be achieved in many different ways, such as having a postal address, an e-mail address, a telephone number or any of the many other possible entry points for incoming messages. If, on the other hand, there is no way at all for a message to arrive, then communication will be unsuccessful – like a message in a bottle, lost at sea.

The way in which the represented information arrives is also significant. It depends partly on the type of transmission which is used, and partly on the way in which the message has been represented for transport. Neither of these alters the content of the message, but they can certainly alter the frame of mind in which the content is processed by the receiver. Therefore, it is wise to consider both form and method of delivery as being important aspects of any message, rather than purely mechanical steps in the communication process.

Perception

The term perception is sometimes applied to sensation alone, as in the phrase "sensory perception". However, I am using it here in its more common meaning, which includes two closely linked processes. The first is sensation, which is the only way information from outside the receiver can get into the receiver's brain. The second is sufficient cognitive activity to allow that sensory input to be recognized, if it has been encountered before, or to be noted as a new phenomenon, if it has not.

A document or a picture needs light waves, reflected from its surface, to carry the represented information to the eyes of the receiver. Similarly, sound waves are needed to carry an auditory representation to the ears – and so on. In some cases, the appropriate stimulus will have been employed throughout the transmission step, but otherwise this interim step is necessary to get the information to the receiver's brain.

Even when the information received by a sensory organ reaches the brain, the communication process is not complete. Some sort of interpretation, which varies greatly according to both the message received and the mind receiving it, is still necessary. In the case of a printed document, the characters are usually recognized, decoded into words and at least partially understood, in the single operation called reading.

Information

This is a rather misleading heading, because I am actually going to combine my discussion of information at the receiving end of the communication process with the next heading, Receiver's meaning. When discussing meaning and information from the sender's perspective, I used separate headings, but explained that the two were closely related. This time, I will use a single heading, but explain that the two elements, though considerably interlaced, are not identical.

Receiver's Meaning

The perception step discussed above results in the transportable representation of the information originally provided by the sender being accessible to the brain and mind of

the receiver. It is then either recognized or classified as something new, and in most cases some further processing also occurs. It is tempting to declare the communication process complete at this point.

However, as mentioned at the outset, there is still one vitally important aspect of communication to consider. The information, which has now been received, was originally an attempt to represent the meaning understood by the sender. Now it will be used to provide meaning to the receiver. Attribution of meaning by the receiver is virtually inevitable, once the information has arrived – but that meaning will rarely, if ever, be identical to the meaning originally intended.

The meaning attributed by the receiver can be influenced, as mentioned earlier, by the form in which it is represented and the way in which it arrives. It is also, inevitably, influenced by the knowledge, experience and emotions of the receiver. Naturally, the information itself has a very considerable influence on the meaning attributed to it. However, that influence is clearly not the only one involved.

Although it may seem obvious enough, that simple fact about communication is really of tremendous significance. It means that, although the message can be controlled, the meaning cannot. That is not to say that the meaning attributed to a message is completely divorced from the meaning originally intended. However, it does mean that transferring meaning is not a simple matter – and certainly not an exact science.

What if you want to share your intended meanings as accurately as possible? In order to do that, communication has to become an art, as well as a science. The elements described in this appendix only provide a basic idea of the processes involved. The book itself is intended to encourage the beginnings of effective communication. Beyond that, further understanding of the vast territory involved in the transfer of meaning is something which may be improved throughout life.

Processing Information

I have referred to the need for some cognitive activity in association with most of the steps of the basic communication process. Cognitive activity usually continues after the communication has been completed, in order to reflect further on what has been received, integrate it with existing thoughts and feelings, and formulate an answer if desired.

Theories about the ways in which the human mind goes about these things are outside my scope. However, I will mention a few related ideas in passing. Various sets of mental tactics or rules are often useful when approaching particular mental tasks, though they may not always be employed consciously.

The rules we refer to as logic are often useful when processing qualitative content. The rules we refer to as mathematics are always necessary when processing quantitative content. The rules we refer to as statistics are frequently applied (though often misapplied) when processing probabilistic content.

It is also quite common to consider the processing of information under the headings semantic, syntactic and pragmatic.[6] The semantic aspect of communication involves things with an agreed meaning, such as words. The syntactic aspect involves the agreed rules, such as grammar,[7] which govern the relationships between semantic elements.

The pragmatic aspect of communication involves the actual meaning ultimately attributed to the received information. This is sometimes called the impact which that information has on the receiver. As we have seen, the same information can have a very different impact on different people.

Regardless of the way in which the processing is done, communication between two or more people always involves three personal aspects in addition to the basic

communication process previously described. Firstly, people experience emotions, and their emotions both influence, and are influenced by, the content of the communication. Secondly, people have a tendency to employ two or more means of communication simultaneously,[8] mixing them in real time and also making judgements about the weight they give to each. Thirdly, people have a tendency to start processing, attributing meaning and responding, while they are still in the act of receiving the rest of the message. This all adds to the complexity – and richness – of interpersonal communication.

Q4: - Illustrate the role of media in instructional process?

Ans:-

THE ROLES OF MEDIA IN INSTRUCTION:-

Media can serve many roles in instruction. The instruction may be dependent on the presence of a teacher, or instructor-based. Even in this situation, media may be heavily used by the teacher. On the other hand, the instruction may not require a teacher. Such instructor independent instruction is often called “self-instruction” even though it is guided by whoever designed the media.

Instructor-Based Instruction

The most common use of media in an instructional situation is for supplemental support of the “live” instructor in the classroom certainly properly designed instructional media can enhance and promote learning and support teacher-based instruction.

But their effectiveness depends on the instructor (as will be made clear in the chapters that follow).

Research has long indicated the importance of instructor’s role in effective use of instructional media. For example, early studies showed that when teachers introduced films, relating them to learning objectives, the amount of information students gained from films increased. Later research confirmed and expanded on these original findings. For example, developed the concept of “advance organizers” as an aid to effective instruction. An advance organizer may take the form of an overview of or an introduction to lesson content, a statement of principles contained in the information to be presented, a statement of learning objectives, and so on. Whatever the form, it is intended to create a mind-set for reception of instruction.

Advance organizers can be effective instruments for ensuring that media play their proper role as supplemental supporters of instruction. Many commercially produced instructional materials today have built-in advance organizers, which may be used as is or adapted by the instructor.

Instructor-Independent Instruction

Media can also be used effectively in formal education situations where a teacher is not available or is working with other students. Media are often “packaged” for this purpose: objectives are listed, guidance in achieving objectives is given, and

materials are assembled, and self-evaluation guidelines are provided. In formal educational settings, media such as videocassettes and computer courseware can be used by trainees at the work site or at home. In some instances an instructor may be available for consultation via telephone.

Cooperative learning is closely related to self-instruction. As students work together in groups or in collaboration with the teacher on learning projects, they take more responsibilities for learning. Newer technologies such as hypermedia encourage students to rely on their own cognitive strategies in learning. Cooperation learning with hypermedia can lead to stimulating interchanges among students as they go through and discuss their responses to the material. Hypermedia programs that allow for user addition to nodes of information (or addition of new nodes) students reports of learning activities to fellow students as the well as to the teacher. This can be a way of building in individuals' responsibility in group work.

The use of self-instructional materials allows teachers to spend more of their time diagnosing and correcting student's problems, consulting with individual students, and teaching on a one-to-one and small group basis.

How much time the teacher can spend on such activities will depend on the extent of the instructional role assigned to the media. Indeed, under certain circumstances, the entire instructional task can be left to the media. Experimental programs have demonstrated, for example, that an entire course in high school physics can be successfully taught through use of films and workbooks without direct classroom intervention by the teacher. Successful computer-based courses in calculus have been developed for use by able students whose high schools have no such course.

This is not to say, of course, that instructional technology can or should replace the teacher, but rather that media can help teachers become creative managers of the learning experience rather than merely dispensers of information.

Distance Education

Distance education is rapidly developing approach to instruction throughout the world. The approach has been widely used by business industrial and medical organizations. For many years doctors, veterinarians, pharmacists, engineers, and lawyers have used it to continue their professional education, these individuals are often too busy to interrupt their practice and participate in classroom-based education. Recently academic institutions have been using distance education to reach a more diverse and geographically dispersed audience not accessible through traditional classroom instruction.

The distinguishing characteristic of distance education is the separation of the instructional team and student(s) during the learning process. As a consequence the course content must be delivered by instructional media.

The media may be primarily print (books and paper-and-pencil tests), as in traditional correspondence courses. But today a wide variety of media are used. Audiocassettes, videotapes, videodiscs, computer courseware, and interactive

videos can be sent to individual students. In addition, radio, broadcast television, telelectures and teleconferences are utilized for “live” distance education. The latter two delivery systems allow for interactive instruction between the instructor and the students.

Special Education

Media play an important role in the education of special students. Handicapped children in particular need special instructional treatment. Mentally retarded children need highly structured learning situations because their field of experience and ability to incorporate messages into mental constructs is limited. They need to have much more of the message placed within the context of their field of experience in order to expand that field of experience. Students who have impaired hearing or impaired vision require different kinds of learning materials: more emphasis should be placed on audio for visually impaired students than for normally sighted individuals. Talking nooks for example are available for visually impaired students to use in special education programs and at home. Adjusting instruction for all of these groups requires a heavy reliance on medial and materials and the appropriate selection of these materials to fit specific purposes. Although severely handicapped students often attend special education classes the trend today is to “mainstream” students whose disabilities do not preclude them from profiting from regular classroom activities. Instructional media specifically designed for such students or classroom adaptation of media to compensate for physical and mental disabilities can contribute enormously to effective instruction of handicapped students and can help prevent their unwarranted (albeit unintentional) neglect by the busy regular-classroom teacher.

Q5:- What is the physical basis of learning? How educational technology can support learning?

Ans:- Psycho-physical basis of learning

By using the term "psycho-physical," Alexander wanted to emphasize the fact that a person's "mind" and "body" are not separate entities, but dimensions of one whole functioning being. All of our being and moving, whether we are consciously aware of it or not, involves the whole of ourselves and all of the "parts" we commonly talk about separately--thinking, "physical" movements, emotions, spirit.

Alexander believed that his principles were of fundamental importance to the field of education. Most of us when teaching, for example, assume that if we choose carefully what we say, our students will have little difficulty in understanding us, or that if they do misunderstand us, we simply need to explain the concept in a slightly different way, or to find out what learning style our student is using and adapt our teaching to it. Furthermore, most of us also assume that if a student has a problem needing correction, it is only necessary for us to point out the correct way of doing the thing to be changed, and only necessary for the student to follow our instructions. In addition, students receiving instructions usually believe that if they decide to do something they can (perhaps with a little

practice) and if it feels right when they do it, all is well. In fact, as Alexander discovered and repeatedly demonstrated, our understanding of any idea and our ability to carry out any instruction is based on the functioning of our whole selves, which is conditioned by the accuracy of our sensory appreciation. Students without benefit of Alexander's technique, who try their best to "get it right," can only perform in a manner that feels right to them. Indeed, one of the greatest difficulties in teaching is overcoming what the student is convinced (because it feels right) is the right thing to do or the right thing to think. Since we reward students for the right answer, for good grades and good test scores, it is not surprising that students are primarily concerned with results, and doing things the "right" way. Sometimes they succeed and all seems well. Students who fail in their initial attempts will often try harder. Unfortunately they can only try harder by relying on the same habitual mal-coordination that didn't allow them to succeed in the first place. Equally unfortunately, when we work within a system that values results (learning to read, write, do math, get good grades, do well in sports) little attention is paid to the means whereby the results are obtained. But as Alexander demonstrated so well, if we are interfering with our normal, natural functioning, teachers will have difficulty teaching and students will have difficulty learning.

A pattern of directing ourselves that results in unnecessary muscular effort is obviously inappropriate in learning a new motor skill, but is equally detrimental in other spheres of learning. Take for example math. Many people's feelings about math range from outright incompetence to complete phobia. If you observe students who have such distaste for the subject, you will probably see people excessively tightening the muscles in their neck, pulling their head back and down, as well as tightening other muscles in their body. You may also see them making some extraneous motions, such as tapping their pencils, shuffling their feet or wiggling. The students, of course, will be largely unaware of all this activity. If it is pointed out, they may be able to stop the gross movements for a short time, but it will soon resume. If the teacher tries to explain how unnecessarily tightening their neck interferes with their learning math, the students will probably laugh. Nonetheless, all of this excessive muscular effort severely interferes with students attending to the information being presented. They literally block it out.

Of course the situation is compounded by how we as teachers are using ourselves when teaching. Our unconscious habits of moving will be seen and imitated by our students as we instruct them. This imitation is particularly obvious with a "physical" skill, such as golf, martial arts, voice, dance, or leading an exercise class. Our unconscious habits are still present however, when we present any kind of information. Habits of speaking with excessive effort, for example, will literally make what we say less clear and thus more difficult for our students to understand.

Alexander believed that the educational system could be improved only if teachers had knowledge of his principles and employed them in their teaching. He established a school (The Trust Fund School) where the teachers were also teachers of the Alexander Technique, and the children had Alexander Technique lessons along with their regular school work. However, even if you are not an Alexander Technique teacher, a basic knowledge of Alexander's principles will

enable you to see when students are interfering with learning the material, and help them learn how to stop. It will also enable you to present information on any subject more clearly--for no matter what courses we take to improve our teaching skills, no matter what extra tutoring our students receive, the fact remains that how we understand what our teachers say and how well we teach is based on the quality of our whole psycho-physical functioning.

INTRODUCTION: _

The word technology comes from the Greek "techne" which means craft or art. Another word, "technique," with the same origin, also may be used when considering the field Educational Technology. So Educational Technology may be extended to include the techniques of the educator.

DEFINATION: _

Educational technology is the study and ethical practice of facilitating learning and improving performance by creating, using and managing appropriate technological processes and resources.

Explanation and meaning

Educational technology is most simply and comfortably defined as an array of tools that might prove helpful in advancing student learning. Educational Technology relies on a broad definition of the word "technology". Technology can refer to material objects of use to humanity, such as machines or hardware, but it can also encompass broader themes, including systems, methods of organization, and techniques. Some modern tools include but are not limited to overhead projectors, laptop computers, and calculators.

Those who employ educational technologies to explore ideas and communicate meaning are learners or teachers.

Benefits

Educational technology is intended to improve education over what it would be without technology. Some of the claimed benefits are listed below:

- Easy-to-access course materials. Instructors can post the course material or important information on a course website, which means students can study at a time and location they prefer and can obtain the study material very quickly[11]
- Student motivation. Computer-based instruction can give instant feedback to students and explain correct answers. Moreover, a computer is patient and non-judgmental, which can give the student motivation to continue learning. According to James Kulik, who studies the effectiveness of computers used for instruction, students usually learn more in less time when receiving computer-based instruction and they like classes more and develop more positive attitudes toward computers in computer-based classes.[12] The American educator, Cassandra B. Whyte, researched and reported about the importance of locus of control and successful academic performance and by the late 1980s, she wrote of how important computer usage and information technology would become in the higher education experience of the future.[13][14]
- Wide participation. Learning material can be used for long distance learning and are accessible to a wider audience[15]

- Improved student writing. It is convenient for students to edit their written work on word processors, which can, in turn, improve the quality of their writing. According to some studies, the students are better at critiquing and editing written work that is exchanged over a computer network with students they know.
- Subjects made easier to learn. Many different types of educational software are designed and developed to help children or teenagers to learn specific subjects. Examples include pre-school software, computer simulators, and graphics software.
- A structure that is more amenable to measurement and improvement of outcomes. With proper structuring it can become easier to monitor and maintain student work while also quickly gauging modifications to the instruction necessary to enhance student learning.
- Differentiated Instruction. Educational technology provides the means to focus on active student participation and to present differentiated questioning strategies. It broadens individualized instruction and promotes the development of personalized learning plans. Students are encouraged to use multimedia components and to incorporate the knowledge they gained in creative way.

Technology in the classroom

There are various types of technologies currently used in traditional classrooms. Among these are:

- **Computer in the classroom:** Having a computer in the classroom is an asset to any teacher. With a computer in the classroom, teachers are able to demonstrate a new lesson, present new material, illustrate how to use new programs, and show new websites.[19]
- **Class website:** An easy way to display your student's work is to create a web page designed for your class. Once a web page is designed, teachers can post homework assignments, student work, famous quotes, trivia games, and so much more. In today's society, children know how to use the computer and navigate their way through a website, so why not give them one where they can be a published author. Just be careful as most districts maintain strong policies to manage official websites for a school or classroom. Also, most school districts provide teacher WebPages that can easily be viewed through the school district's website.
- **Wireless classroom microphones:** Noisy classrooms are a daily occurrence, and with the help of microphones, students are able to hear their teachers more clearly. Children learn better when they hear the teacher clearly. The benefit for teachers is that they no longer lose their voices at the end of the day.
- **Mobile devices:** Mobile devices such as clickers or smart phone can be used to enhance the experience in the classroom by providing the possibility for professors to get feedback.
- **Smart Boards:** An interactive whiteboard that provides touch control of computer applications. These enhance the experience in the classroom by showing anything that can be on a computer screen. This not only aids in visual learning, but it is interactive so the students can draw, write, or manipulate images on the Smart Board.
- **Online media:** Streamed video websites can be utilized to enhance a classroom lesson (e.g. United Streaming, Teacher Tube, etc.)

There are many other tools being utilized depending on the local school board and funds available. These may include: digital cameras, video cameras, interactive whiteboard tools, document cameras, or LCD projectors.