Learning is a continuous process education essay

It is said that " Ignorance is Bliss'. If that be the case, one may wonder why people seek knowledge. This is because ' Knowledge is Power'. That is why everyone is in pursuit of knowledge. Acquiring / up gradation of knowledge is known as learning. Learning is a continuous cyclic process. It starts from what one knows. It goes towards what one wants to know. The cycle is as shown below [1]

In the process of learning, one picks up from what others know and some times one learns from one's own experience. Many times the success in life comes through learning new skills, knowledge, capabilities and attitudes. If we narrow our concern to the success of learning process in educational institutions, the success cannot be measured as a simple parameter. The success may be seen immediately or it may be felt at a later date. Success may be felt by an individual or it may be felt by the society. In many societies, education is seen as cost center and not as profit center. Governments in the world spend huge sums of money to educate their population. Generally these investments are made currently with an eye on future generations of the society. All along lifetime of mankind, education and continuous up- gradation of knowledge have been contributing to development of society.

In a broad sense the following parameters can form the basis of measuring the success of learning:

Knowledge gained

Skills up-gradation

Decision making capability

Attitudinal change

Ability to shoulder responsibility

Problem solving capability

Judgmental capability

II LEARNING PROCESS

Many principles are used to accelerate learning process [2]. Learning style depends on students' preferences, students' information processing capability, personality, social interaction tendencies, cultural diversity in the learning place and instructional methods. It may be difficult to model learning process precisely. There is a lot of disagreement between the educators and psychologists in the understanding of learning process. However, they agree that learning can be explained by the combination of two approaches namely, behaviorism and cognitive theory. Some of the principles that affect learning are readiness, exercise, effect, primacy, intensity, recency and perception. The factors that affect perception are physical organism, basic need, goals and values, self concept, time and opportunity and element of threat. There are four levels of learning namely, Rote learning, understanding, application and correlation. Higher levels of learning take place in cognitive domain, affective domain and psychomotor domain. However, any knowledge / skill learnt are liable to be forgotten if not used regularly. There are methods for retention of what is learnt. The

methods are praise, recall by association, favorable attitudes, meaningful repetition and leaning with all senses.

Learning or acquiring of knowledge, skill etc are aimed at enhancing a person's decision making capability, problem solving ability, judgmental capabilities, ability to shoulder responsibilities and above all confidence of that person. Since learning is an important aspect of students' lives, it becomes all the more important for us (teachers) to concentrate on different learning processes and various teaching methods that can bring about the required change in the students for maximum benefits.

From the understanding of learning process, we understand that teaching involves transfer of knowledge, belief, skill, understanding, experience, values and preferences from the teacher to the taught. While undertaking any teaching assignment, the teacher is interested in knowing he sure methods of success in achieving the required goal of transfer of knowledge etc. There is no specific fool-proof method for available for the same. The success depends on the subject taught and methods employed. If one method has failed, the teacher must find another that can facilitate transfer of maximum information. In short, teaching is not considered to be a science and it is recognized as an Art.

III PEDAGOGIES

Different pedagogies are used for teaching different subjects. The well known, time tested standard and traditional pedagogies are chalk and talk, demonstration, tutorials, experiments and questions. But it has been found that these pedagogies fall short of expectations. So, there have been efforts

to identify more effective novel strategies for teaching. We shall discuss some of the novel pedagogies and some of e-learning methods.

Recent pedagogies include ' Role play', ' learn while you play', ' Learn through games', promoting ' Lateral thinking', ' Discovery learning', ' Cooperative learning', ' Case studies' and ' Peer teaching'. More recent methods are e-learning and m-learning pedagogies. We shall discuss each of these in detail.

3. 1 Role Play

Role play as a pedagogy has been in use for some time now [3]. It has been recognized as an effective learning tool especially for development of attitudinal skills. It exposes the participants to different views / perspectives for the same situation. All the participants may have gone through the theory of situations and how to react to such situations. However, in practice, one may find himself / herself wanting. Role play lets the participants go through the experience and to understand what different people may think / do at the same situation. In a role play a scenario is explained through a brief given to set of players. Each player may have been given different responsibilities and with different goals / objectives. There may be roles with conflicting interests as in the real life scenario. As the players play out the scenario, the possible obstacles in any one's plan are unfolded. Each one learns about the other's ideas and each player gains more insight in to real life situation. The result is the rich experience gained by all.

3. 2 Learn while you play

This pedagogy is use in use since kindergarten scheme of education is in vogue. This pedagogy is used mainly to help children get out of their homesickness in to a system of education. The system is use from 19 Century [4]. The pedagogy is useful in making even the reluctant child to join his / her friends in learning the basics of language / numbers. It has been found to be very effective across large societies. One of the reasons for this pedagogy to be successful is that it makes learning an interesting activity. It can possibly be beneficial if the same pedagogy is extended o higher learning also, specifically for learning skills.

3. 3 Learn through games

This pedagogy is very much useful for learning management skills. This is practiced in many International Schools of management [5, 6]. It was started in 1958. It seeks to initiate reactions (management decisions) from students in a simulated environment. The game(s) can be played by a group of students across the table or it can be played over the Internet. Assisted learning is possible with the teacher providing necessary inputs so the student makes correct decisions. A good example is TOC V6 that can be played over the Internet [7]. The game lets the students to create a company, operate railway lines, plan routes and tariffs, plan advertisement and management strategies based on simulated results. In this game, the player is expected to make management decisions in the spheres of personnel, business planning, marketing and financial management.

3. 4 Lateral Thinking

The term Lateral Thinking was invented in the year 1967 by Edward De Bono [8]. It lets the students to think ' out of the box'. The practice has been found to be useful in many situations. The website by the author is very useful in understanding the full capabilities of the practice of lateral thinking. In any situation, one can find the way out by simply thinking differently. As an approach, it is beneficial for all students to be encouraged in the art of lateral thinking as they are likely to face different problems than the ones for which they are prepared now. Good example of lateral thinking is the game of crossword. It tries to find an answer to a seemingly difficult statement.

3. 5 Discovery Learning

It is a good tool to let the students learn new concepts simply by discovering them. It is originally proposed by Jerome Bruner [9]. Discovery Learning is a method of inquiry-based instruction, discovery learning believes that it is best for learners to discover facts and relationships for themselves. This pedagogy allows knowledge to be constructed by the students themselves. In this method, the learner discovers the facts from their past experience and existing knowledge [10]. David Kolb has suggested an experimental learning model in 1984 [11] as shown below.

Seymour Papert, a Professor from MIT has said " You can't teach people everything they need to know. The best you can do is position them where they can find what they need to know when they need to know it" [12]. Learning orientations are found to happen in four different domains, namely, Behavior, cognitive, humanist and social domains. Out of these, cognition and recognition are mental processes that get sharpened by learning.

Cognition is a complicated process that extends beyond what one sees or hears or smells. It provides understanding and association. For example, when we hear background music, we are able to identify the song and also any event / memory associated with it.

3. 6 Case studies

In this pedagogy, a single person or a group of persons study a situation or ' case' in the real world. That is, they study a real time problem. It is expected that the person or group is involved in extensive research about the problem. Case studies are very helpful in the fields of Business or medicine. Case studies are useful in bringing out the correlations between events. Many times, case studies are also useful in suggesting suitable ways out of any situation. It helps the participants to weigh the pros and cons of different approaches towards the solution to any problem on hand. The benefits of this pedagogy and the approaches are many [13]. Free samples of case studies are also available [14, 15, 16, 17, and 18].

3. 7 Peer Teaching

This has been found to be very effective in teaching students with mixed capabilities. This strategy exploits the advent of ICT (Information Communication Technology) in the field of education. In an UNESCO study conducted at Malaysia, it has been found that this pedagogy is very helpful for students in learning [19]. This strategy has been identified as " hands On, Heads On, Hearts On" strategy. There are many benefits of this strategy as this makes it possible for the learning to continue beyond the classroom and the examinations. It encourages collaboration among the students. But it

must be borne in mind that a good student may not always be a good teacher.

Main reason for this strategy to be effective is that we tend to remember [20]:

10% of what we hear

15% of what we see

20% of what we hear and see

60% of what we do

80% of what is done actively with reflection;

90% of what we teach others

IV RECENT TRENDS

Recent pedagogies are e-learning and m-learning using more of ICT. These strategies are more suited for teaching knowledge or concepts. However, for teaching skills, one's personal experience is the best teacher. For example, one cannot learn to swim from any amount of conceptual teaching from any one. One can learn swimming simply by jumping in to a water body and picking up the nuances of swimming.

An analysis of e-learning initiatives of Colleges of Technology shows that majority of the staff members here use prepared study material and starting and maintaining discussion forum in websites. Some of the staff also uses power point presentations for transferring knowledge. However, there are

some more e-learning pedagogies that can be made use of. We shall discuss them in detail.

4. 1 Animation

Animation uses the language of pictures. It is easy to convey a concept through an image than through verbose statements. Image captures the attention of viewers better than the ability of a lecturer to capture the attention of the listener. There are many 2D or 3D animation pictures available for teaching different subjects. It is possible to make the students understand certain time-related concepts better with animation than by regular classroom lecture. Many organizations are involved in development of animation pictures for teaching different subjects.

4. 2 Simulation Software

Many times, especially in design, it may not be possible to build a particular product and then test it. It may be costly and there may be other problems. So, it becomes advantageous if we can ' simulate' a design and test the same in simulation. More over, a product / design that may give certain results under certain conditions, may give varied results under different conditions. While it may be possible to calculate / extrapolate the current situation, simulation helps the person to find the result without having to create the conditions physically. There are soft wares available for simulating various parameters and finding the results. The student can test his / her design under different conditions. Many simulation packages are available for teaching different subjects.

4. 3 Video Lectures

This is another method where the student is made to listen to the lectures by an eminent person in a field. The lectures by a reputed person are recorded and are available as video lectures. There are many such lectures available in the Internet [21]. The well known lecture series from Professors of Massachusetts Institute of Technology (MIT) or Indian Institutes of Technology (IITs) are available for free down load on any technical subject. These lectures are expected to offer to the student the much needed variety of view on the subject. It must be understood such lectures, though available, are not suited for developing practical skills.

4. 4 Audio- visual (AV) lectures

These are slightly different from the video lectures. These are useful with additional voice-over. That is, there are practical demonstrations with supporting voice -over instructions. The additional instructions are very helpful in enhancing the understanding of the subject. There are many available, mainly for learning different languages. However, there are a series of AV volumes available for Physical Exercises by Jane Fonda.

4. 5 Screen casting and POD casting

Some times screencasting helps easy understanding of some subjects [22]. A screen cast is the capture of the computer screen along with accompanying audio (of the teacher) and distributed. It can be viewed through the LAN in screen cast or it can be distributed through mobile network in POD cast. It can be considered to be representation of computer screen over a period of time. It captures changes in the screen for each action. The student, even if

he / she has not been attentive in the class to appreciate all the minute points can learn them leisurely at home at a later time.

4. 6 Virtual Learning

Virtual Reality is the latest technique. It allows the user to experience a ' simulated Virtual' environment in the computer. It calls for use of many gadgets associated with imaginary environments. It helps the student to ' gain' the experience of any situation without having to go through the rigmarole of creating the environment. This is driven by stringent computing power requirements.

V CONCLUSION

We have considered many pedagogies that can be used in your classroom. After studying all these options, one may wonder if the pedagogy used by that person is the best one. However, it must be borne in mind that a particular pedagogy may be well suited for teaching a particular subject. The same pedagogy may not suit well for teaching other subject. The suitability of the pedagogy is dependent on the following parameters:

The subject taught

Students' capability to understand

Students' interest to learn

Nuances involved in learning that subject

The learning environment

Compulsion / incentives in learning that subject

Language proficiency of teacher and taught

We have considered different pedagogies and their relative merits. Only after practice of each of them one can come to a conclusion if it is well suited for any subject.

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