

TEACHER'S EFFECTIVENESS AMONG SCHOOL EDUCATORS IN RELATION TO USE OF TECHNOLOGY OVER THE YEARS

Ms. Sujatha Koshy*
Dr. Priyanka Tiwari**

ABSTRACT

National development is correlated to the quality of teachers. It is universally accepted that the quality of a nation depends upon the quality of its citizens, which in turn depends, in the critical measures, upon the quality of their education. The latter depends upon several factors like family background, Social environment influences, Good education, Values, Beliefs and Enriched experiences, but the most significant factor in the whole process is the quality of teacher. The importance of a teacher is unquestionable and plays a predominant role in the process of education. At the heart of teacher effectiveness is the teacher's ability to understand student's strengths and weaknesses and help them to grow gradually with time that clearly indicates that a good teacher understands her students while a great one engages with them. The sudden closure of school across world due to Covid 19, after World War II such a major lockdown of institutions world has witnessed. This was an especially challenging task for educators who were acclimatized to the intransigent education system in India which is unaccustomed to relying this heavily on technology. The unfamiliarity with technology especially for the non-tech savvy staff posed a heavy handicap in getting over the steep learning curve that situation posed during lockdown and the Corona virus pandemic had created the need for mass up skilling of teachers simultaneously. Findings reveal that digital learning is an extremely powerful tool that could bring about tremendous changes in the education process and if our Educators don't adapt to the same then it will not sustain in the global competitive environment. Henceforth, low level of teacher's effectiveness impacts Quality of Education and restricts exploration of new ideas and acceptance towards new teaching aids. The Present paper aims to explore the role of a teacher's effectiveness in using efficiently digital tools and techniques for online learning which ensures the continuity of learning even during any crises situation. The methodology is based on secondary researches & is analytical in nature. Researchers are related to the topic Digitalization and Teachers Effectiveness which helps in improving quality of Education are published in various journals; sources like Shodhganga, Academia and Scopus over 8-9 years were analyzed The discussion of the study highlights the challenges teacher's faced while adapting to digital teaching and it would also suggest coping strategies which can ultimately help in improving quality of education .Henceforth, the conclusion incorporates the advantages of high level of teacher's effectiveness incorporation with digital learning , disadvantages of low level of teachers effectiveness and coping strategies in order to adapt with eLearning challenges which would ultimately help in growth of Education Sector.

Keywords: Quality Education, Teachers Effectiveness, Digital Learning, Globalization, E-Learning.

Introduction

"A student spends 25,000 hours in the campus. The school must have the best of teachers who have the ability to teach, love teaching and build moral qualities" -A.P.J. Abdul Kalam

India is a fast developing country with large population and providing education to such a large population is itself a challenge. Educational institutions are facing many challenges around the world to bring quality education into 21st century. Every human being is born with dormant potentials and

* PhD Research Scholar, Amity Institute of Psychology and Allied Sciences, Amity University, Uttar Pradesh, Noida, U.P., India.

** Assistant Professor, Amity Institute of Psychology and Allied Sciences, Amity University, Uttar Pradesh, Noida, U.P., India.

education assists in its additional enlargement. Education plays an important role in the compatible and wholesome development of man's natural powers. It brings out the whole development of his individuality. It produces sensible behavior change. Finally education develops an individual for cheerful and trustworthy life.

In today's world teachers find themselves in a position where their present knowledge and teaching skills become obsolete due to the explosion of knowledge. They are continuously facing the challenges of electronic media and information technology. Present world is becoming market-oriented as it is being integrated into one world economy due to dramatic advancements in international trade, global communication system, and transportation and information services. We are accepting changes in the fields of business, industry and information technology. But our education system does not seem to have gone parallel with the fast pace of other developments. These changes have raised serious questions for the education sector.

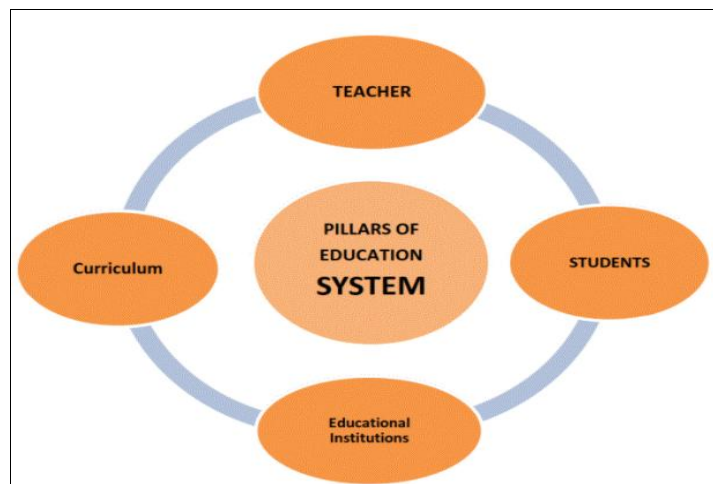


Fig 1 : Pillars of Education System

A distinction is build by a teacher. A child's wish to learn is glint by a good teacher. A great teacher affects that glint to ignite a fire that burns forever. A teacher can empower a child to be motivated to learn. Teachers must possess the essential skills like competency, effectiveness, personality features and behaviours that student learn. These skills influence student's motivation to learn. It is a teacher's duty to connect with each student to nurture the paroxysm and enthusiasm to learn. Teachers enable to all-round development of his/her students that can be possible only when the teacher himself/herself is an all rounder. He/ She needs to have repertoire of skills. He/ She can bring constructive, productive and quality education in the society because under his/her charges the destiny of our children is made. Hence teachers should be equipped with appropriate pedagogical practices with adequate content knowledge and specified skill with the inclusion of technology rich environment, which can be acquired by continuous and rigorous training. This will strengthen the quality of teaching and learning, and thereby will improve the quality of education.

Therefore to attain quality education, the education system is challenged with pressure to adopt innovative pedagogical practices that reflect new ways of teaching and learning which makes the learner more independent in learning. This independent learning activities will enable individual learners to achieve their learning goals and outcomes. This independent learning could be supported by integration of technology with conventional teaching learning methods which can strengthen planning of teaching-learning strategies. This integration can be called as Blended Learning.

Blended Learning often integrates conventional classroom and e-learning activities such as audiovisual presentations, brainstorming, case studies, debates, demonstrations, small group discussion, problem- 2 based learning, project method, quizzes, reflective practices, team teaching, simulation, guest speaker, mobile teaching and video conferencing and many more other classroom teaching practices which can enhance students learning. Blended Learning method affords opportunities for the pupil-teachers to familiarize themselves with the technology rich learning environment in integration with other conventional methods. So, Blending different methods of teaching would provide various benefits over a single method.

Review of Literature

According to McBer Report (DFES, 2000) students expect a teacher to have a good content knowledge to be considered effective, which inspires the student's confidence in the teacher. In this report this is also stated that students themselves want a teacher to maintain discipline in the classroom

Eddie Gulc (2006) published a paper on using Blended learning to accommodate different learning styles. In this study the researcher adopted new educational technologies to expand provision for participating and stimulating the learners experience and made them to accept this new learning experience for their lifelong learning. The researcher adopted a variety of teaching styles which are more likely to offer learners more successful educational experience. The result suggests that blending both e-learning and online learning benefited the learners to a maximum extent.

Harris P. Connolly (2008) studied on Blended learning; overview and recommendations for successful implementation. The purpose of this paper is to identify key themes within the blended learning literature and to develop a series of practical recommendations to facilitate the successful adaptation and implementation of a Blended approach to learning delivery. Methodology adopted is literature review and informed a series of recommendation for organizations considering, adopting or Implementing Blended approaches to teaching and training. This study proves that blended learning has the potential to overcome several of the disadvantages of both traditional methods and elearning it is important to recognize its limitations.

Hong and Miao (2009) conducted an experimental study Blended learning has influenced sixth grade students with different ability levels in an elementary school in Taiwan in terms of their achievements in environmental education. The outcomes of the experiment are: 1) no conspicuous interaction between teaching approaches and learning capacity is found in the posttest on environmental education.; 2) subjects who accept blended learning demonstrate better achievements than the other group; 3) Students with higher learning capacity have higher achievements than the lower ones; 4) with different teaching approaches, students with lower learning capabilities show a remarkable difference in the posttest on environmental education.

Pradeep Kumar (2010) conducted an experimental study on the effect of Blended Learning strategies on learning retention and attitude of secondary school students. This study deals with the different learning strategy which can be used by the teachers to minimize forgetting and acquisition of knowledge lasting effectively. This study reveals that student centered learning strategies improved the achievement level due to active and interactive learning process. It also reveals that Blended Learning strategy provided a greater opportunity for improvement on student's achievement.

Mustafa Caner (2010) designed a Blended Learning model for teaching practice course. The aim of this study is to introduce a Blended Learning environment and a model for pre-service teaching practice course in English Language Teacher Training Program at Anadolu University. In this research the investigator provided a Blended Learning environment for teaching practice course would improve the practice and professional growth of pre-service teachers. The findings of the study shows that learning through Blended Learning environment for teaching practice course is improved, so it supports delivery and design of the content through Blended Learning approach in higher education.

Tara S. Nair (2014) conducted a study on effect of Blended Learning strategy on achievement in biology, social and environmental attitude of students at secondary level. In this study the researcher analyze the effect of Blended Learning strategy on achievement in biology of secondary school students. The inferential statistics namely analysis of covariance was applied for analyzing the data. This study also compares the environmental attitude of secondary school students based on demographic variable. The result of this study showed that majority of the teachers responded that Blended Learning strategy develops the ability to appreciate the scientific phenomenon through various learning experience.

Objectives

The Present paper *aims* to explore the role of a teacher's effectiveness in using efficiently digital tools and techniques for online learning which ensures the continuity of learning even during any crises situation

- Influence
- Benefits
- Challenges
- Coping Strategies

Methodology

The present paper is based on secondary data & is analytical in nature.

Observation and Interpretation

Education is one of the most potential weapons to fight against socioeconomic problems like poverty and inequality. The Indian economy with world economy was posing many challenges like maintaining international quality in higher education and acceptability and sustainability of skilled manpower. In order to eradicate various challenges to improve educational sector, we need accept new to meet these educational demands of learners we must have teachers who know how to impart knowledge, and who care extremely about children and ensure their achievement in future. Hence teachers should be equipped with appropriate pedagogical practices with adequate content knowledge and specified skill with the inclusion of technology rich environment, which can be acquired by continuous and rigorous training. This will strengthen the quality of teaching and learning, and thereby will improve the quality of education. Therefore to attain quality education, the education system is challenged with pressure to adopt innovative pedagogical practices that reflect new ways of teaching and learning which makes the learner more independent in learning.

Influence of Strong level of Teacher's Effectiveness and Technology in Education System

The gist of all those parameter, attributes, characteristics, descriptions, qualities, and traits of an efficient teacher are summarised:

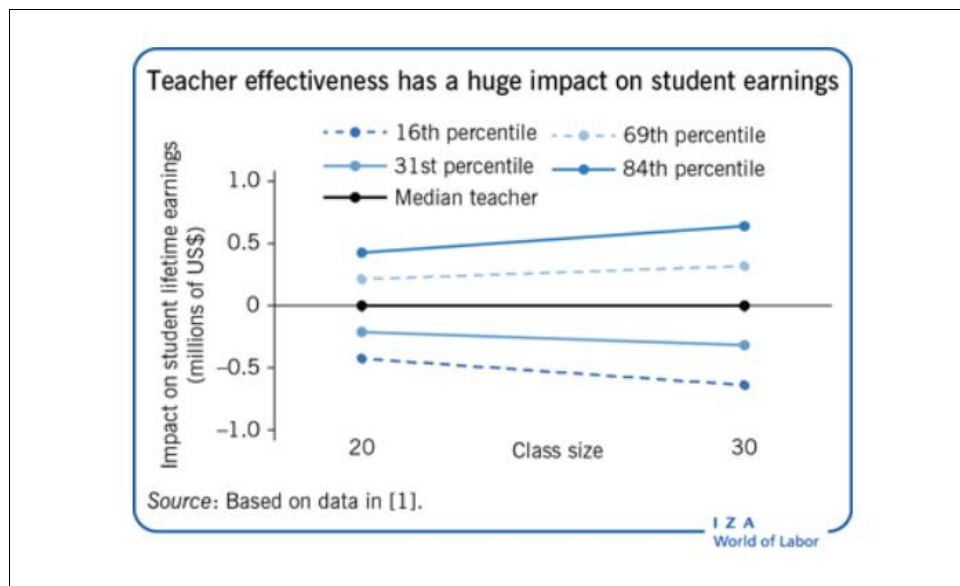


Fig II : Impact of High level of Teachers Effectiveness

- **Command Over the Core Subject**

Command over the core subject is a key of success and effectiveness of a teacher. Mastery over the main subjects or specialisation boosts up the buoyancy and confidence level of the teacher and consequently enlarges the teaching effectiveness. Since the learning never ends thus the erudition of a teacher should not be static but should be extended with the new discoveries and invention in the field of education. In most of the above cited studies command and mastery have emerged as strong predictor of teaching effectiveness.

- **Well-Versed and Knowledge of Allied Subjects**

Generally a teacher may be required to teach allied subjects or streams or branches allied to core subject thus an effective teacher should be well-versed and should be fluent in teaching associated subject. For example a professor of financial accountancy should have good knowledge and fluency in teaching the cost accountancy and management accountancy. Similarly a teacher of direct taxes may be required to teach indirect taxes e.g. "GST". During the literature review it was revealed that the knowledge of kin subjects has emerged as the demand of modern education scenario.

- **Updated and Authentic Knowledge**

As it been quoted many times that erudition of teacher should never bring to a halt, so an efficient and expert teacher is always required to keep updated him / her. Further it must be updated with new changes and amendments and such updates must hold reliability and validity. For instance, the economy of India is passing through economic reforms causing changing in direct taxes and indirect taxes. So teaching effectiveness requires him or her to keep updated and modernised. Similarly amendments are taking place in Indian company act, so an expert teacher is under obligation to know all those amendments.

- **Effective Communication Skill**

Communication skill is a very effective and commanding teaching trait of expert teacher. A highly learned and knowledgeable teacher would not be able to deliver effectual and influential unless he or she posses fluency in communication skill. Blend of communication skill with knowledge and resourcefulness yields great academic result. Knowledge and mastery of subjects will not bring desirable changes in learning outcomes unless accompanied by skill of communication. Further teaching methodology also largely depends upon the verbal communication. In the majority of study communication skill has emerged as the second vital and realistic indicator of teaching effectiveness. Indeed communication is the most preferred one teaching aptitude of efficient teacher.

- **Affinity, Empathy and Rapport**

Since an educational institution is tiny world consisted of students from diversified social and religious groups, caste, and linguist. So making good rapport with all those diversified learner is big challenge for teacher. Affinity, empathy and rapport help a teacher to have firm and cordial relationship with students to promote the conducive environment in class room. Rapport has become as key component of teaching effectiveness in majority of finding. In several studies it was discovered that emotional intelligence of lecturer helps to make good rapport with students.

- **Credibility and Reliability**

Credibility and reliability is another trait of an ideal and effective teacher. Credibility means trustworthiness and dependability, sometimes students share their personal problems and difficulties ask for personal help of teacher, thus he /she is not required to disclose such things to others. Credibility of a teacher makes him reliable among students. Further teaching effectiveness also requires not disclosing confidential matters such as question papers, examination sheets etc. to unauthorised persons.

- **Leading and Motivating**

In a class room to engage the students in active learning heavily relies upon the motivational and leadership quality of their mentor. Teaching and learning process becomes more fruitful when learners keenly take part in learning process. In other words students should be motivated to raise questions and give their opinion. A student should be praised for sharing new and innovative ideas. Further an ideal teacher always welcomes the negative feedback of students and should make endeavours to remove his / her shortcomings.

- **Innovative and Resourceful**

An effective teacher is also required to be imaginative and creative in class room. An effective teacher is required to use appropriate and sufficient teaching aid. An effective teacher use audio-visual aid such as black board, green board and multimedia projector. Further an efficient teacher should quote real life examples to make his / her content delivery vivacious and vigorous. Quoting instances and examples at appropriate time make the content live and enhance communication skill. Many a times an indistinct, tough and ambiguous topic can be explained smoothly with suitable examples. They also use different methodology to teach different levels of students as per their need.

- **Objective and Unbiased**

The behaviour of an idyllic the teacher should not be influenced by gender, caste, creed, race, religion etc but it should be even-handed. Further an efficient should not become partial due to social or financial back ground of any students. An efficient and idyllic teacher must be always objective and evaluation of students should be performance based only. Impartiality, neutrality and objectivity of a teacher should be reflected in all aspects such as behaviour, discipline and evaluation work. Fairness of a teacher makes conducive environment in class room.

- **Approachability and Accessibility**

It has been many times that great teachers have a very busy and tight schedule, specifically professors of universities, so students face difficulties to approach them. In spite of such fact teaching effectiveness helps the teacher to make them accessible and approachable so students can meet them.

Easy access and approach of students make the teacher great and idyllic, so student may solve their personal doubts. However modern technology has great boost in approachability and accessibility of teacher via Skype, video classes, and other social media. Even a student of remote area may approach their teacher through internet.

- **Effectual Planning and Organising**

Planning and organising is a key component of teaching effectiveness. Preparation of a teacher is reflected in daily lesson plans, weekly and semester lesson planning. Setting up task and academic goal to be achieved are reflected in teacher's lesson plan. Organising is the counter part of planning and efforts of a teacher will go in vain without proper organisation. Idyllic teachers also do fertile and optimum organisation of available resources. It includes available time slot, study material, teaching aid and fixtures and fittings. Effective teachers also maximise teaching and learning time of their students.

- **Well-Versed in Multiple Intelligences**

Dr. Howard Gardner propounded the concept of Multiple Intelligences in 1983 by exploring the eight different ways of teaching and learning. He advocated that different students have different learning abilities and each student has a different learning method. In various competitive examinations, examinees are tested under different multiple intelligences test. So an effective teacher should be fluent to explain the content according to eight dimensions of multiple intelligences. Those eight learning traits of multiple intelligences are listed hereafter.

The Powerful Impact of E-Learning

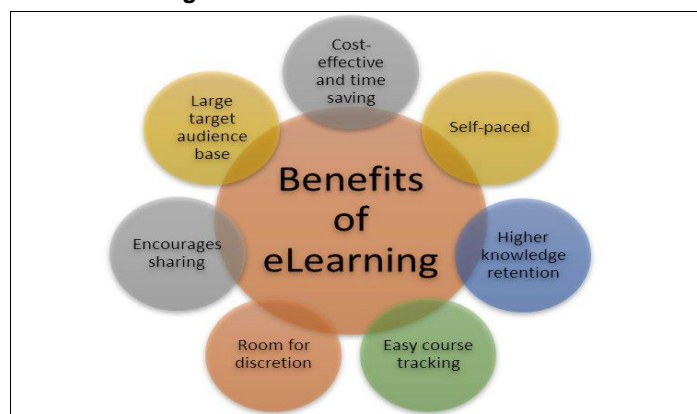


Fig III : Benefits of Digital Learning

- **Games Change The Games!**

Gamification in learning helps students learn more efficiently. Computer, or video games, which demand critical thinking stimulate the problem-solving brainpower of students. In these games, players participate in realistic scenarios and anticipate collective outcomes based on their moves. The beauty of technology is that artificial intelligence plays its part as the learners improve on the game.

- **Small Chunks Of Content – Microlearning**

Microlearning is a big deal in the eLearning world right now. The reason for that is human brain learns efficiently when knowledge is provided in smaller snippets. A recent applied cognitive psychology study has found that gaps in learning time span increases knowledge retention. This strategic learning can be beneficial for school students. Learning with big pieces of textual content is often stressful, and the retention with them is often low. It is beneficial in the long-term learning. Microlearning applies short videos, visuals, exercises, and presentations in 90 to 120 second sessions that are followed by quizzes and instant feedback.

- **Informal Learning Empowered Digitally**

Informal learning has its own importance. Now, it is pretty clear that innovations often emerge from the minds of folks who emphasize informal learning. Informal learning has largely gone digital in 2016, and 2017, and there is no doubt 2018 will witness more of it in every field. Students must be encouraged to take informal learning along with academic education. That will definitely help them gain insights of the practical knowledge in their respective fields.

- **Podcasts - Easiest Digestible Information**

More and more mentors in the eLearning industry are turning towards pod-casting. The simple reason behind it is that podcasts do not demand special attention while consuming the information. Formal instruction requires physical presence in the learning classroom, but it's a completely different story with podcasts. Students can listen to podcasts while completing their daily chores, or while travelling, or in the leisure time. All it needs is attention with ears. Although pod-casting may not be comparable to webinars, its benefits cannot be ignored.

Pros of high level of Teacher's Effectiveness and Cons of Low Level of Teachers Effectiveness:

Pros

- Students taught by highly effective teachers get significantly higher grades; the effect is substantial and enduring.
- Teacher effectiveness improves long-term outcomes such as earnings.
- There are robust and persistent measures of teacher effectiveness that are supported by expert observation and student feedback.
- Standard estimates of teacher effectiveness seem reliable and not to suffer from bias related to student selection.

Cons

- Research shows that teacher effectiveness is largely uncorrelated with the teacher's own educational qualifications.
- Teacher selection and hiring can be problematic because there is little useful information available pre-hire.
- Some studies suggest that schools would benefit from a high optimal level of turnover among junior teachers, though recent research is re-opening the debate on the role of experience.
- Tracking the persistent effects of training, mentoring, and development is difficult due to a general lack of longitudinal data.

*As technology continues to advance, eLearning becomes more accessible to almost everyone. Online learning is a popular choice today because of the ease it offers to online learners. **There are quite a few pros and cons of eLearning which are listed below:***

Advantages

- One is able to link the various resources in several varying formats.
- It is a very efficient way of delivering courses online.
- Due to its convenience and flexibility, the resources are available from anywhere and at any time.
- Everyone, who are part time students or are working full time, can take advantage of web-based learning.
- Web-based learning promotes active and independent learning.
- As one has access to the net 24x7, you can train yourself anytime and from anywhere also.
- It is a very convenient and flexible option; above all, you don't have to depend on anyone for anything.

Disadvantages

- Most of the online assessments are limited to questions that are only objective in nature.
- There is also the problem of the extent of security of online learning programs.
- The authenticity of a particular student's work is also a problem as online just about anyone can do a project rather than the actual student itself.
- The assessments that are computer marked generally have a tendency of being only knowledge-based and not necessarily practicality-based.

Coping Strategies

Examining wellbeing-

As highlighted by the World Health Organization (WHO), *'health is not merely the absence of disease or infirmity but a state of complete physical, mental and social wellbeing'*. For adults, it's important to not only focus on the wellbeing of children, but of themselves too. And while everyday life can present its own challenges, life during social isolation can be agonizing.

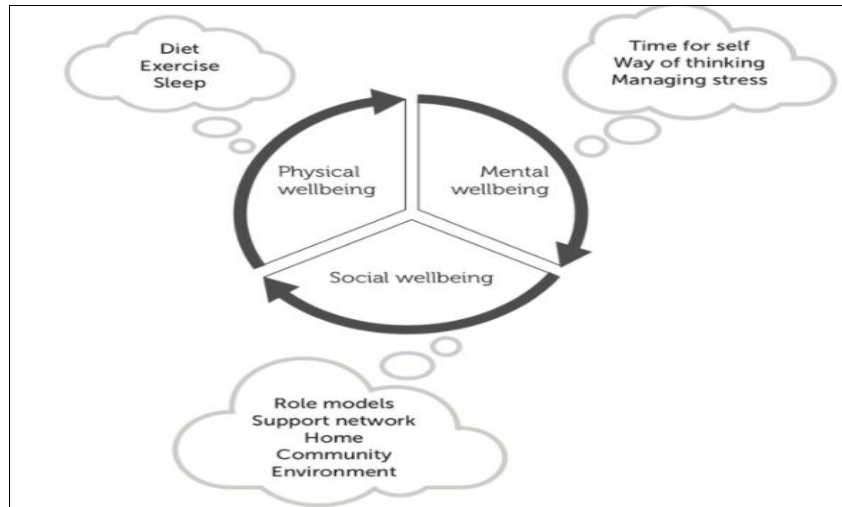


Fig IV: Examining Well Being

Frydenberg suggests adults spend around 20 minutes per day reflecting on their own self-care and use a version of the below 'checklist' to breakdown their activities.

Although there are many different ways to teach effectively, good instructors have several qualities in common. They are prepared, set clear and fair expectations, have a positive attitude, are patient with students, and assess their teaching on a regular basis.

- **Positive Attitude**

Keeping students engaged with a positive attitude. Teaching is most effective when students are motivated by the desire to learn, rather than by grades or degree requirements. Learning and teaching are challenging, but that doesn't mean that one can't have fun in the classroom. Stay focused, but don't be afraid to be creative and innovative. One should allow oneself to be enthusiastic and find ways to let students see what is interesting about their subject.

- **Being Prepared**

One should know the course material. If students are required to attend lectures and read assignments, then it seems reasonable that teacher should do the same. Teachers should prepare an outline for their lectures which they have to present to make sure that they are well prepared to have more engaged and interactive class with students .

- **Needs to be Organized**

Have a plan for what you want to teach. Teacher's job is to illustrate key points and essential context, to help students integrate all of their work (reading, labs, exams, papers, lectures, etc.) for the course. Given that there is never time to teach everything, choose the most important concepts and show how they are related. Explain ideas so students are able to build on material they have already mastered, whether from your course or previous classes. Show students how what they are learning now is connected to material covered later in the course. Keep long term goals in mind, pace oneself so that one doesn't run out of time at the end, and try to end every class with a conclusion.

- **Be Clear**

Effective teachers can explain complex ideas in simple ways. Helping students understand and use new terminology, so they can become fluent in the language of one's discipline. Many concepts can be more effectively demonstrated with visual aids such as diagrams, drawings, charts, slides, etc. Make sure that they are large enough to see, neat enough to read, and don't stand in the way! Think about the role body language can play. Having one's teaching observed by someone else (or even better, having it videotaped) can reveal habits that you would never notice on your own.

- **Keep them Active**

Keep students thinking. Unless they are actively using the concepts teacher is teaching, most students will remember only a small fraction of what they teach. A lecture is an efficient way to deliver information to large numbers of people, but it is an inefficient way to provide students with lasting knowledge and skills. Consider using at least some classroom time for activities other than traditional lectures, discussions or question and answer sessions. Problem solving exercises in small groups can take no more than a few minutes, yet allow students to engage with the material being covered.

- **Cultivate the Art of Patience**

Remember what it is like to learn something for the first time. Give students time to process information and answer questions. Know that it is fine for students to make mistakes if they can learn from them. Realize that learning can be hard work, even for the most motivated students. Rather than blaming students when things don't go right, consider ways one could change the approach to reach them more effectively.

Conclusion

Educational institutions are facing many challenges around the world to bring quality education into 21st century. Most of the countries are developing institutions in many ways by implementing various learning programme for strengthening the education practices and skills which required for students. The importance of Education is today's need, as it is not only the development of intellectual skills and knowledge but also induces effective growth and development of Indian economy. The goal of our new education system should be to create entrepreneurs, innovators, artists, scientists, thinkers and writers who can establish the foundation of knowledge based economy rather than the low quality service provider nation that we might turn into.

Globalization has made the world more dynamic and extremely competitive where an array of education strategies, expertise and knowledge are constantly generated and changed. Innovative digital technologies have been found as powerful supporting tools for change and transformation. Digital learning tools and technology fill the gaps where traditional classroom teaching falls behind. In fact, some of the efficiencies such tools bring are simply unmatched by traditional learning techniques. From the environmental impact recognized by the need for less paper for handouts and books to saving time with quick access to information and the ease of research, digital learning provides an effective way to cut costs, maximize resources and heighten both reach and impact for students and educators alike.

References

1. ASHKANASY, N., WILDEROM, C., & PETERSON, M. (Eds.) (2010), Handbook of Organizational Culture and Climate. Thousand Oaks, CA: Sage.
2. Ajit Singh Siwatch, Shree (2009), Library Management: Leadership Style Strategies and Organizational Climate.
3. ADLER, N. J. (2008), International Dimensions of Organizational Behavior. Boston: Kent Publishing Company, New York.
4. BOXALL, P. F. (PETER F.) (2008), Strategy and human resource management, Basingstoke [England] ; New York : Palgrave Macmillan
5. ARNOLD, JOHN AND SILVESTER, JOANNE (2007) Work psychology: understanding human behavior in the workplace Financial Times/Prentice Hall, 4th ed., Harlow, England; New York.
6. JEREB, EVA & BRANISLAV SMITEK (2006). "Applying Multimedia Instruction in ELearning". *Innovations in Education and Teaching International*, 43 (1), 15-27
7. ATHOS, A. G. AND J.J. GABARRO (2005). Interpersonal Behavior: Communication and Understanding in Relationships. Englewood Cliffs, NJ: Prentice-Hall.
8. BATEMAN AND SNELL (2003), Management- Competing in the new era, 5 th Ed., TataMcGraw Hill, New Delhi.
9. BENNETT, ROGER (1991), Organizational behavior / Roger Bennett. London: Pitman, 1991.
10. BHASKAR, R.K. AND CHOUDHRY,N. (1997), Work culture: A Study of selected Organizations in India, Abhigyaan,15:4, ,pp.33-43.
11. BISWAS B.N., Perception of organizational climate and effectiveness – A comparative study of district co-operative Banks and Regional Rural Banks. BORMAN, W. C. & D. R. ILGEN (Eds.), Handbook of psychology: Industrial and organizational psychology (Vol. 12, p. 565-593). New York, NY: John Wiley

