Adapting Teaching Practices for 21st Century Educational Needs

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Abstract

Teaching and learning are two sides of the same coin. There have been dynamic changes in the interrelationships and interactions of the teachers and the taught. Hi-tech, innovative technologies have unwarrantedly entered the realms of learning across the globe. The developed world has looked at the technological inputs deluging the corridors of academic institutions especially those of higher learning. The teacher presenting this paper examines the influx of technical inputs like the cell phone making inroads into the classrooms and how they are impacting upon the teaching learning continuum in an undergraduate and graduate situation.

The paper examines how the ordinary everyday lectures are securing the attention and comprehension of the students. The video recording of class room lectures provided the platform for long term learning among the students. It was also a reflection of the teacher's self-assessment of the classroom lecture delivered.

Key words: Technology, Student-teacher continuum, innovative, attention, comprehension, self-assessment, classroom, lectures.

Introduction

The minds of learners in the 21st Century are no longer dependent on books or a straitjacketed closeted classroom environment. A truly dedicated teacher can help stimulate minds of students and motivate them to think and learn better.

Whenever the teacher is enabled to provide a creative and simulating environment, the response is rich and expressive. The students are encouraged to explore and are motivated to forage into areas unexplored on the subject.

An environment that impacts upon the inherent mind set, psyche and thinking processes enables the students to reach out and explore what is really beneficial for them in the long run.

As a teacher the biggest challenge one faces is capturing the undivided attention of the students and conveying to them the ideas and knowledge to create a lasting impression. To be able to tackle this challenge effectively, the teacher must constantly come up with innovative ideas that end up making the classroom experience of the students a most invigorating and stimulating one. Having experienced classroom teaching for about two decades, I have become aware of a number of ways of the student teacher interaction that make for long term sustainable bonding.

As the world is witnessing technological changes in all aspect of the field of technology, Peter, Abiodun and Jonathan (2010) felt, "students must adapt to changes in line with their levels of thinking on handling machineries and equipment so as to commensurate with the industrial needs."

Creativity can be stimulated in a number of ways including playful games and even forms of visual exercises that can excite young minds and spark their interest to reach their own unique conclusions.

Use of Creative Initiatives in Classroom Learning
Creativity has no barriers and can be seen to make its mark in almost all the subjects, be it mathematics, science or history. Some of the best teachers are the ones with an unending flow of developing their own creative ideas.

The entire purpose of these teaching mechanisms is to encourage the students to bring up and experiment with different ideas and always give to them the total freedom to explore.

Teaching has come a long way from the days of black boards and chalk. The students today are raised on smart boards and all types of technological inputs. A large variety of audio-visual materials supplement the traditional textbook learning from school onwards. These are in the form of models, filmstrips, movies, pictures, info graphics, besides the other psychological gimmicks like mind mapping and brain mapping tools.

Such tools go a long way towards building imageries for the learners their imagination thrives and grows beyond all limitations. These methods go a long way in not only developing the students' ability to listen but also help them improve their understanding of concepts.

The most significant aspect of teaching is to utilize all forms of teaching aids for an exciting introduction to the lesson. If it is taken up in a story like manner and it can keep the students engaged for long duration of time. Learning sessions become all the more interesting when the teacher can introduce the subject as a story.

Rudyar Kipling had said that "if history were taught in the form of stories, it would never be forgotten." It is true, therefore, that the best historical records are those that have been recounted as stories. In fact most of the legends are recounted by word of mouth. These days' storyboarding is among the best approaches to teach any subject that requires step-by-step memorization. A higher level would be the visualization of the teachers' highly-conceptual ideas.

All teachers can use a storyboard to create famous events. This form of visually stimulating approach to learning ensures that even the most complex ideas can easily put across to the students. The social media is a helpful medium to make the story boards available to the students at all time. On personal level my inputs are followed by regular visuals and videos of the related content on Pinterest app and Facebook page.

In fact these kinds of storyboards tend to become a bridge and are a vital form of communication which lets the students tells a story in pictures all the while using their own imagination.

Vital Attributes of the 21st Century Teacher

It is essential that the teacher should really love teaching. Only then can the equation be well balanced. The students are all the more tuned in when the thoughts of the teacher are synchronized with the thinking processes of the students. There is a palpable feeling of achievement when the teacher feels that they are giving their best.

Bill Gates is of the view that "even the greatest of teachers can get better with smart feedback".

The students too would then be more creative and inspired to reach out to newer dimensions of thought and exploration. Every teacher will find that loving their work keeps them relaxed and gives them ample room to experiment with new ideas. The creative teacher is always keen on doing extensive and intensive research on all kinds of creative ideas and a wide range of techniques.

These experiences are becoming popular all over the world. In India, as a developing country the access to facilities including hardware and software is still a scarce resource in many of the far flung government run academic institutions like schools and colleges. However, the reach of the communications network is such that cell phones, or colloquially, the mobiles are a bye word in even some of the remotest areas of the country. These mobiles are a great provider of connectivity in the government and private educational institutions. Towards this end I would like to present my first-hand experience of technology transfer in the classroom situation since the past year. Some of the views of the students will show the kind of impact that has been made. When I asked the students to enumerate how useful my lessons taught in class had been. I was pleasantly surprised to see a hundred percent positive feedback.

"We always ensure that your entire lecture and question answer sessions are recorded on our cell phones and we play and reply the lecture among ourselves for making our notes and preparing for assignments. We click the picture of the white board. Your recorded lectures are a tremendous source of information and we are encouraged to seek further information than just the course curriculum".

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"As everybody knows that the recording of the lecture is going on we have two advantages. Firstly, we can wholeheartedly be present during the classroom session and do not have to worry about taking notes. Our concentration is undisturbed and total. Secondly, while the lecture is being recorded everybody ensures silence in the class. All forms of mischievous activities are forgotten. There is full sharing and discipline in the class room. We also click picture of the demonstrations."

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"Most of the students sitting in the front benches concentrate totally on the audio-visual recording on their mobile phones. They forward the lecture to the entire class which forms a group on the whatsApp . Completing practical work has become so much easier because once the lecture has been recorded we can hear it again and again. In fact, many of the details of the lecture can be understood very well. Many of us hear the lecture together and perform practical in a group. In case there are still any doubts then the best recourse is to the approach the teacher and ask for further details."

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"This is the best approach ever. We can hear or rather see the lecture in the classroom situation over and over. By seeing reviews of the lecture at our pace, that is, by going backwards and forwards on the video recording we can pick up every little detail of the module. Many a times we can see related videos shared for our enrichment of knowledge. The video recording is a boon. All the students are benefitted by it. One can even view the audio - visual recording over and over again any number of times. Many of us even get to memorize most of the lecture!"

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"This is so good! Earlier we used to take notes in class. Because of the pace of the lecture and the inevitable question answer sessions going on simultaneously we tended to lose some parts of the lecture. Later, when we compared notes with each other there would be major lacunae left and we would have to supplement with the help of books or going back to the lecture. Now that is not required. We simply record the lecture and then replay it at our leisure. It is the best way of learning. There are many more audio clips which visual are available on the subject but the real fun is having your own class lecture which you can replay at your own room or home. It is much easier for us students to understand the lecture in our own time. It is a great boon to be able to get such detailed lectures".

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Thus, it can be seen that innovative ideas are essential to make teaching methods more effective. Seeing the fact teachers of the current century have paced their technological inputs during the past few decades it is essential that teaching and learning too benefit from the large volumes of technical aids available.

Technological Breakthrough and the Common Student

The onslaught of technology in the form of computers and mobile phones has ushered in multiple cross -sectional yet fundamental structural changes. The advent of the mobile phones and their large scale accessibility as well as use by large sections of the students' community is unprecedented. While almost all technologies support both teaching and learning, the mobility infuses classroom learning with digital learning tools like computers and hand held devices like cell phones. This greatly impacts upon the scholarly offerings, experiences, and by all means a greater variety of learning materials that supports learning. These learning aids have been observed to increase student's engagement and their motivational levels for imbibing what is being taught. Accelerated learning is the major output.

Technology gives the teacher the power to transform teaching by promoting new models of connected teaching that works 24 x 7. This model links teachers to their students as well as adds

professional content, resources and a variety of systems to help the learners improve their instruction inputs and personalize learning.

These days the access to online learning opportunities through the use of unfathomable educational resources generated through technologies has enabled them to increase vastly their educational productivity. This is largely through:

(i)   Accelerating the rate of learning;

(ii)   Drastically reducing costs of a large variety of instructional materials;

(iii)   Methodology of program delivery as well as;

(iv)   Much improved teacher time utilization.

Technology: Wings for prolonged Learning

It is evident that in today's teaching-learning environment the use of teaching aids is an integral component. The consistent use of teaching aids has exhibited the following impacts:

(i)   Helping learners improve reading and comprehension skills

(ii)   On a sustainable basis, illustrating or reinforcing skills and concepts

(iii)   Differentiating instruction and relieving anxiety or boredom by presenting information in a new and exciting way.

It is a well-documented fact that teaching aids involve the total attention potential of the students because these versatile aids can be utilized exponentially when supplementing the days' lesson.

On obtaining this form of feedback from my students I asked them to share their videos of my lecture with me also. It was a great learning experience indeed. I could easily understand the language, concepts and exchange of ideas given through the lecture. I was surprised at the ingenuity of the students to use this form of technological inputs. I came to the following deductions:

(i)   I could review my lectures in the videos and assess immediately the drawbacks, lacunae and points I had missed out on if any.

(ii)   The video showed me my pace and also the level of understanding the students were showing.

(iii)   Such videos would help me prepare better and give the students areas for further elucidation.

(iv)   The students' feedback on the videos especially pertaining to how well they had understood the concepts could be highly motivational.

(v)   The video gave glimpses of the type of fine tuning that was required to make the lecture cover the module holistically.

(vi)   The video provided the students with greater opportunity for interaction and interface. This is not possible in the classroom sessions.

(vii)   The best of both worlds is achieved when there is the benefit of direct interaction with the students in the classroom situation and there is also the achievement of the obtaining the required feedback after the students have thoroughly acquainted themselves with the teacher's lecture.

(viii) The feedback obtained by the teacher is often two fold because it is firstly when the students interact in the class and secondly it is also afterwards when they have watched the video a few times.

Thus, the help of technology has made classroom teaching sustainable and the learning process very scintillating, highly absorbent and sustainable.

It is a persistent phenomenon of the times that the students of today are reading less and less on their own. In fact the reading habit has been totally eradicated in the younger millennial. The teachers are also finding reading and comprehension skills are very low among today's students. Modern teaching aids are helping teachers to close the gap and hone the reading and comprehension skills of the millennial students.

The millennial generation finds itself absolutely comfortable with online technology. Technology should therefore be embraced fully in consonance with the needs and accessibility of the learners.

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