



Changing practices and trends in education: Need to adopt in India

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Abstract

Through this article author has made an honest effort to explore the changing practices and trends in Education. Author has also discussed different new practices, approaches, methods and techniques which can be best suited to the techno-friendly generation and emphasizes on adoption the same in Indian Education practices.

Keywords: changing practices, new trends, personalized learning, bite-sized learning

Introduction

Learning has acquired great importance these days, in fact when a child is born he started learning and he has to learn throughout his life. Learning and teaching these two are different processes, before dealing with these two processes, let's try to understand two important paradigms of Education- *Sage on Stage* and *Guided by Side*.

Sage on Stage: In olden days we use to study under the guidance of *Guru*, *Guru* used to stay on the stage and asked his disciples or students used to learn from *Guru*, whatever *Guru* told the students were supposed to learn, in fact we can imagine a model where knowledge was transmitted by the *Guru* or teacher and that knowledge was acquired by teacher like a vessel collecting water, that way was very old model of education and now a days it is not very much applicable, because it was teacher centric and whatever teacher decides students supposed to follow. But modern research has shown that it is not enough to only transmit knowledge for acquisition of knowledge by the learners. There are many more things and processes involved which we see in subsequent discussion.

Guided by Side: This model is called "today's model of Education", here teacher is supposed to be a facilitator of education, teacher is not supposed to stand on stage or podium and keep in delivering lectures to the students, in fact teacher is supposed to be in touch with students and provide a very good learning environment for the learner and not supposed to deliver any kind of one way transmission of information or knowledge.

In present era, we can experience that with this second type of model how students learn better than that of first model of

education. Before dealing with this model in detail, it is necessary to recall the three important theories of learning which made drastic changes in whole education system of world.

Theories of Learning

- Behaviorism
- Cognitivism
- Constructivism

In order to appreciate these three theories, let's look at the data that we have got from researches. Researches finding about Effective Education states that-

- Teaching and learning are two sides of a coin- that is teaching is different process and learning is different process. Here, it is not necessary that better learning should follow better teaching. However research findings do indicate that-
- Good teaching results in good learning
- There is correlation between student's ratings about learning and their overall ratings of the teacher and as well as the course.

In short, when learner said that he has learn in a very good way then his rating about the teacher and about the content of the course is also very high. Thus there is a very strong correlation between learning and teaching so naturally we have to take this point further, because even in the old days people used to say that good teaching results in good learning and even today, we assumed and find that good learning happens because good teaching. Of course only this factor is not important, in addition to this, there are many more factors which are also important as far as education and good learning is concerned. Let's have

look at the rating of various methods used in the classrooms.

Table 1: Methods and their Rating used in Classrooms

Teaching Methods	Ratings
Lecture	40
Group Discussion	36
Case Study	25
Individual Presentation	20
Workshop	16
Role Play	16
Seminars	12
Assignments	12
Brainstorming	11

Generally, we are familiar with only one form of teaching namely lecture, because right from childhood to adulthood learners go to the classroom and try to understand the content area from the teacher in the form of lectures. But we can see in above table that there are many more methods of imparting knowledge in the classroom. Which shown that though the lecture method is used most but there are questions raised over the effectiveness of this method now days.

Now here, it is important to discuss about the *Retention*, the retention means whatever learners has learned, the part of that learning he remembers, is called as retention. The following table will definitely surprising us, so have a look at that-

Table 2: Methods used in Classrooms and their retention Rating

Teaching Methods	Retention rates
Lecture	5%
Reading	10%
Audio Visual	20%
Demonstration	30%
Group Discussion	50%
Practice by Doing	75%
Explaining Knowledge to others	90%

Here, it is that quite clear that only listening is not sufficient for higher learning instead, learners should explore and explain their information to others when it get higher acquisition. It means that whatever information or knowledge you gain by reading, seeing or doing learner should try to explain it to others people or peers may be in the form of some story telling or in the form of any discourse or whatever may be you like. So when you try to explain something to your peer that you will find that your understanding increases and your retention also get increases simultaneously.

Now back to the three theories of education, which we begun earlier i.e. behaviorists, cognitivists and constructivists.

Behaviorism

- A process of associating the stimulus with response, which produces a new behavior.
 - Such behavior is strengthened by the reinforcement.
 - Behaviorists view the learner as a passive person who responds to the stimuli.
 - According to them the learner starts as clean slate and the behavior is shaped by reinforcement.
 - Learning is defined as a change in the learner’s behavior.
- So here, according to the theory of behaviorism, learning is a

result in change. But, as per present scenario is concern this theory is secondary and not so effective in today’s era of education, eg. From behaviorism point of view, in a classroom if a learner is simply sleeping he is doing day dreaming or he is not giving attention towards the teachers, naturally, there will be no acquisition of knowledge, there will be no change in the behavior. Therefore, theory of behaviorism supposed to be least effective in today’s complex world.

We have second theory i.e. Cognitivism.

Cognitivism

- It is the study of mind and how it obtained, processes and stores information.
- Learners are assumed to be active participants and the mind functions like a computer processor.
- Information comes in as input, the mind processes the information and the information is stored away to be retrieved later.
- From cognitive view point, learning is teacher-centered.
- Teacher must present information in an organized manner to achieve efficient learning.

By summing up above cognitivists views, knowledge acquisition is a cognitive process and e learner should be active. According to this theory we have to study how our human brain functions, once we understand we are clear about it we can definitely device good methods of teaching as well as learning. Now let’s turn towards third theory i.e. constructivism. According to constructivism-

Constructivism

- Learners create their own knowledge.
- The knowledge is constructed through one’s own personal experiences and interactions with the outside world.
- The learner takes in new information and gives meaning to it using his or her own prior attitudes, beliefs and experiences.
- Learners are active participants in construction of knowledge while the instructor refers as a facilitator.
- It is a learner centric view.

In constructivist’s views, it is assumed that knowledge does not come from teacher to the students; knowledge is actually generated in the mind of the learner. In this model learner is the generator or creator of knowledge. Whatever knowledge or understanding that the learner gets happens because of his or her active participation in understanding or in generating the knowledge. Further, according to this view, teacher is not supposed to transmit the knowledge to the learner and stand on stage and deliver lecture. In fact, he should create appropriate learning environment, should make available variety of resources for the students may be in the form of good books, e-learning materials, and online resources or may be in the form of audio video books. Once these resources given with little bit assistance or guidance and let them actually start to use these resources and thereby start processing the information and create their own knowledge. So, when learner starts constructing his knowledge the understanding increases and teacher played role as facilitator. This theory or model of education namely, constructivism has gain lots of importance these days and most of the educationists focusing on this model/theory of education.

After reviewing and keeping in mind these three theories of education now we turn towards the new trends coming in the present education system.

New trends in education

In the classroom being teachers, we have very odd situation, the knowledge acquisition of the learner that takes place in the classroom has a major component in the form of sight i.e. 80% of knowledge that learner gains comes through his sight i.e. his eyes, 15% through his ears and 5% through his other senses (touch, taste and smell). The situation is odd because, when teacher is standing on stage in the classroom he is talking for ours together and transmitting all information in the form of audio signals or stimuli and hardly few minutes he goes towards board and write on it. Here, there is contradiction, once it is prove that maximum knowledge acquisition takes place through eyes or by sight we wastage our time nearly 80% in giving auditory stimuli's. But the capacity of the learner is exactly apposite. He has capacity to acquire 80% knowledge through eyes but only 15% transmitted. So there is a mismatch in effectiveness of teaching and in effectiveness of learning in the classroom and that is why the classroom teaching learning is not very effective as it should have been. In this connection, various good researches carried out and educational scientists and educationists found various innovative methods to make the teaching learning effective.

Every year, we witnessing changing trends in almost all fields, and the field of education are not exception for that. Education is one of those areas where we see many notable changes every year. It has a profound impact on learning and learning outcomes in a student context. Here's a look at the notable changing educational trends which we will witness in the upcoming years.

Personalized learning

This is proving to be a notable trend as students can learn without worrying about device, location and time constraints. It also changes the teaching or learning process, and students can learn without disrupting their strengths, weaknesses or speed of understanding. It is, in fact, a game changer for students with special needs as they gain the flexibility or freedom to learn at their own pace and have sufficient ability at the end of the academic year. For example, apps like Dragon Speak are helping dyslexic students to learn through audio books to overcome the limitations of textbook practices.

Bite-sized learning

Short-term attention has always been a problem in the field of education. Students struggled to cope with long and difficult lessons. The learning material is not very interactive, due to which the learning ability of the students is reduced. Now, the field of education has started to understand the individual learning needs of every student. This is made possible by emerging digital technologies. Teachers can now incorporate bite-sized or Nano-learning to reduce stress and increase learning effectiveness. This trend is growing rapidly. The learning model is divided into small interactive sections. It supports the learner's behavior and receives 100 attention points during each learning session.

Online education

With the widespread acceptance and impact of mobile gadgets, the distribution of online education is a concept that is easier than ever. Even working professionals or students who have transportation problems can use education without restrictions. It proposes a platform to teach rural students through videos and tutorials where they can receive it at affordable rates. In addition, value-added certificates presented online can increase student employment.

Integrated learning solution

It is not a practical idea to wait for 100% digitization to give students a taste of modern education in schools. Integrated learning solutions are now an accepted reality in most schools. They want to provide the need for maximum digital infrastructure with traditional textbooks as the basis. In fact, it is unfair for a group of students to be unaware of the benefits of digital education due to communication and infrastructure issues. For intelligent solutions such as smart boards, a print textbook with audio and image content embedded in the online assessment framework can do an amazing job of improving learning outcomes.

Augmented reality

It is proved that knowledge retention improves when learning includes audio, video, and visuals that lack traditional lectures. This is why schools have adopted virtual reality with both hands. In fact, virtual reality is not just about seeing something, but about experiencing an article that helps students learn better. Teachers may find this as a possible option to teach complex concepts with the added benefit of knowledge retention in a relatively short period of time. Augmented reality can take learning to a new level because students only experience the subject.

Genius hour

Students should be provided with "Genius Time", during which they can choose to learn their favorite and interesting subjects. This will benefit in developing interest towards the study and helping students to develop habit of creativity and inquiry thinking. In this duration the teachers' role is to help students to discover their passion and generate interest in the subject, which help them to learn and gain in-depth knowledge.

Smart Campus

Smart campus refers to a digital campus. Smart campuses, such as smart cities, are described as locations where equipment and applications create new experiences or services and facilitate operational efficiency. Humans and technology-driven environments interact to create an immersive and inspiring experience. Internet usage in education has improved over the years. A smart campus uses networking technologies to facilitate collaboration, use resources more efficiently, increase security, save money and make the campus a more integrated and happier space. Through Smart Campus, organizations can integrate lighting, electronics, appliances, cameras, door locks and many more to create a seamless and interactive experience for students, faculty members and administrators.

Cultivation of empathy

The biggest problem in the classroom is the misbehavior of students. Sympathy for others, good communication skills, empathy and good relationships with classmates require students to create positive roles. Empathy for individuals is essential for building trusting and friendly relationships with their peers. Teachers should include more group activities for students to interact with other students. The schools which stressed on improving empathy have high achievement rates in student's outcomes.

Increase welfare programs

The education sector has been very important for the welfare of students in the last few years. And this will increase with the rise of welfare programs. These programs will focus on addressing problems such as anxiety, stress and other disorders that lead to learning disabilities. Students will gain a broad understanding of their emotional, physical and spiritual existence.

In fact, the field of education is a vast field and school facilities vary depending on the type of students you serve and the important societies. Nevertheless, all or most of these trends may have minimal impact on all types of educational projects in our country. Parents, students, teachers, school management and policy makers can influence how trends change over the years.

Shifting from STEM to STEAM

For a long time, the educational system revolved around the STEM approach. The aspects of STEM education based on science, technology, engineering and mathematics only. But nowadays it is a bit old. However, various industries ask professionals who are disciplined in the fields of creativity and art. Over the years, the popularity of STEAM has increased towards learning. "A" means art, which includes the creative aspect of learning. Industries give value to creativity and divergent thinking, especially in the fields of innovation, leadership, teaching and others many more. Even teachers need to develop their creative thinking to design individual teaching methods and age-appropriate models.

Formative assessment solutions

The importance of learning outcomes will receive greater attention and this is why formal assessment solutions are adopted. Everyday assessment, such as basic recall tests at the end of a term, may be less beneficial in this digital age. Through formative assessment, teaching is affected as it examines the student's progress as well as the delivery of the curriculum and analyzes personal and social skills. In fact, students will have a personal understanding of the results because these techniques are adaptive, which is another reason mostly institutions now prefer formative assessment above the usual conventional approach.

Exam management revolution

The way examination is conducted and evaluated is changing, which avoids the more traditional approaches including examinations, examination centers and answer book tests. The process of managing AI-based proctoring exams can be brought about by many changes as there is no infrastructure or logistics

barrier. With the help of this technique, students are allowed to take the exam regardless of location. However, this ensures that students are taking the exam objectively, with intelligence facilities to track and monitor through advanced image, video and audio streaming.

Changing role of teachers

The 21st century has also changed the concept of a teacher. More than a data feeder, a teacher has become someone who nurtures learners. This trend has become the pinnacle for the students to be considered at the center position of the system. The teacher has become a person who guides her class by participating in activities and discovering wonders. Although involved in activities, a teacher must also monitor the personal progress of individuals and help those who need special attention and support.

Conclusion

Finally, it is clear that the new generation is very advanced in their processes and thinking, so it is our responsibility to integrate our learning strategies into their learning style. These changes in education can bring a new era of advanced creative learners and allow educational institutions to make best use of them for the development of better citizens for tomorrow.

References

1. Akyeampong K, Pryor J, Ampiah JG. A Vision of Successful Schooling, Ghanaian Teachers' Understandings of Learning, Teaching and Assessment. *Comparative Education*. 2006; 42(2):155-176.
2. Ashfaque Mohammed, Tharewal Sumegh, Shaikh Abdul, Banu, Sayyada, Sohail, Mohammed, Hannan Shaikh. Trends in Education Smart Learning Approach. *International Journal of Software Engineering and Knowledge Engineering*. 2014; 4(31):327.
3. Augmented reality. <https://quizlet.com/440300900/trends-flash-cards/>
4. Baek Y, Jung J, Kim B. What makes teachers use technology in the classroom? Exploring the factors affecting facilitation of technology with a Korean sample *Computers & Education*. 2006; 50(1):224-234.
5. Cognitivism. nfoqram.com/cognitivism-1hzj4owxvpz72pw
6. Edsys. Top 24 Trends in Education for 2020, 2019. <https://www.edsys.in/educational-trends-for-2019/>
7. Gül Leman Figen. The Changing Trends in Education. *Frontiers in ICT*. 2. 10.3389/fict.2015.00001, 2015.
8. Hallett, John. Teacher Training under Pressure. *European Journal of Teacher Education*. 1987; 10(1):43-52. [Taylor & Francis Online], [Google Scholar]
9. Instructional Design Models, Theories & Methodology: Behaviorism, Cognitivism, Constructivism & Connectivism <https://k3hamilton.com/LTech/behaviourism.html>
10. Karen Gregson, Laura M Romito, Lawrence P Garetto. *Journal of Dental Education*. 2010; 74(5):489-498.
11. Kumar S. (Trained Graduate Teacher in Non medical), e-learning and role of smart class rooms in education in new era of technology. Learning for a Change <http://www.elearning.rs/category/lmssystemi>

12. Learning Theories in Educational Technology. <https://sites.google.com/a/nau.edu/eme3410backup/lessons/lesson-1/learning-theories>
13. Lentz B. Building the Pipeline of Media and Technology Policy Advocates: The Role of “Situated Learning”. *Journal of Information Policy*. 2014; (4):176-204.
14. Lehman L. The Future of Higher Education: Smart Campuses, 2019. <https://spaces4learning.com/articles/2019/03/01/smart-campuses.aspx>
15. Ratna S, Tron B. Learning Theories: Implications in Teacher Education Seen (2019). What’s Happening in Schools in 2019-2020, 2018. [https://www.seenmagazine.us/Articles/Article-Detail/ArticleId/7861/Trending Team, L. \(2017\). A brief introduction to Learning Theories, 2018. https://stories.linways.in/a-brief-introduction-to-learning-theories-4077b8fcd481](https://www.seenmagazine.us/Articles/Article-Detail/ArticleId/7861/Trending Team, L. (2017). A brief introduction to Learning Theories, 2018. https://stories.linways.in/a-brief-introduction-to-learning-theories-4077b8fcd481)
16. Tiwari RS. New Trends in Education. YCMOU Official YouTube Channel, 2014. <https://www.youtube.com/watch?v=4vAX9U4I3to>
17. Zhang D. Tongshi Education Reform in a Chinese University: Knowledge, Values, and Organizational Changes. *Comparative Education Review*. 2012; 56(3):394-420.
18. <https://www.teachthought.com/pedagogy/modern-trends-education-50-different-approaches-learning/>
19. https://www.academia.edu/6730061/Learning_Theories_Implications_in_Teacher_Education
20. <http://www.jdentaled.org/content/74/5/489>
21. https://www.academia.edu/6730061/Learning_Theories_Implications_in_Teacher_Education
22. <https://spaces4learning.com/articles/2019/03/01/smart-campuses.aspx>
23. <https://www.edsys.in/educational-trends-for-2019/>