



Exploring the trends and challenges of education: A futuristic study

Kajal Deb

Associate Professor, Department of Education, Jagat Taran Girls' P.G. College, Prayagraj, Uttar Pradesh, India

Abstract

The present age is witnessing a paradigm shift in the overall scenario of education. Moving away from the conventional pattern of teaching and learning, the manner in which the teachers are teaching and the students are assimilating knowledge is changing rapidly. This change in the pattern of education will open up newer avenues for the learners in future in which technology and innovation will take the lead. Leveraging technology in education will be of paramount interest for the educators and students as well. In today's world of artificial intelligence, education system has to be redesigned to prepare the student for uncertainty and promote adaptability. It should be designed as forward looking and not backward looking.

Keywords: childhood education, problem-solving abilities, MOOCs and COVID-19

Introduction

The redesigning of education system will require a reorientation from early childhood education to university education. It should encourage flexibility rather than specialization. Learners should be allowed to learn independently. We need to reframe the curricula of education which should be based on future trends and challenges.

"Instead of learning to memorize facts and figures, students need to learn how to learn and how to solve problems."¹

This paper is an attempt to explore the trends and challenges of education in its futuristic perspective and address the required changes that will shape the lives of the learners globally.

We are passing through a very tough and unpredictable phase in our life. COVID 19 has changed the entire way we live. Many newly emerged burning issues are emerging before us. Drastic changes are taking place in the field of education also.

"Students will be learning outside, armed with different devices listening to a teacher of choice. Skill will not be assessed on paper but based on their performance in the field. Welcome to the future of Education"²

Things are changing fast. Over the next five years, we will see big changes in learners and learning environments. With most of the young people having access to free and open learning opportunities, all educational programmes are becoming more and more learner-centered. FutureLearners will be demanding more personalized learning; digitized learning and skill based practical learning. The future of education prerequisite a mandatory change in the total scenario of education, so that we can produce a faster, focused, smarter and better human being of tomorrow. The most significant future trends that will shape the future of education may be summarized as following:

1. Focus on Student Centered Learning.
2. Practical learning Strategies.
3. Skill Based Education and Self Directed Professional Development.
4. Internship- Promising tool for Career Readiness.
5. Personalized learning programmes.

6. Digitized learning-App based learning.
7. Blended learning-Blending the face to face and online learning.
8. Edutainment- The innovative concept of blending entertainment with education.

Focus on Student Centric learning: The Glossary of Education Reform describe that the term Student Centered Learning refers to a wide variety of educational programmes, learning experiences, instruction approach and academic support strategies that are intended to address the distinct learning needs, interests, aspiration or cultural background of individual students and group of students. To accomplish this goal, schools, teachers, guidance, counselors and other educational specialists may employ a wide variety of educational methods from modifying assignments and instructional strategies in the classroom to entirely redesigning the ways in which students are grouped and taught in a school. Student centric learning refers to forms of instruction that give students opportunities to lead learning activated, participate more actively in discussion, design their own learning projects, explore topics that interest them, and generally contribute course of study. The benefits of student-centered approach in learning are many:

- It encourages personalized learning.
- It promotes participation of students.
- It expedites the performance at work
- It develops problem-solving skill
- It facilitates collaborative learning
- It enables to make the learning more joyful

The future of education is all about strengthening and incorporating student-centric learning. In this endeavor, the emphasis is on teachers to adopt teaching patterns which will promote flexibility in learning.

Practical Learning Strategies: This is the age when students are prompted to demonstrate their learning's by following a practical approach. Rote learning has become a thing of past. Now the need is to formulate and implement creative and innovative strategies that are practical and

meets the requirements of the students. Practical learning strategy includes a variety of learning and teaching techniques.

- Active involvement of students with the course context
- Encourage students to develop thinking skill i.e. applying analyzing, evaluating and creating
- Teachers acting as facilitator instead of a lecturer

Following strategies may be adopted for practical learning:

Case Study: This technique focuses on developing students' problem-solving abilities. Present a real-life problem to the students. By analyzing the issues or problems, Students may be able to apply newly acquired knowledge to solve the problem.

Experiential learning: Experiential learning activities can include "Learning by doing" such as projects, field Survey, Laboratory Experiments.

Group Activities: Any activity done in small groups enable them to speak and share their personnel opinions. A variety of tasks can be assigned in group work activity such as assigning interesting topics to discuss, articles to read, specific subjects to teach to other groups etc.

One-Minute Paper: Students may be asked to write down a short paragraph in class about some social or cultural issues.

Icebreakers: Icebreakers are an effective approach to get students their interest and expectation for the course.

Peer Group questioning: Peer group questioning is a strategy emphasizing higher order thinking by allowing students to observe the question patterns of their teachers, enables them to learn questioning.

1. Skill Based Education and Self-Directed

Professional Development: Education is all about preparing students towards employment. While bookish knowledge helps them to clear the examination. It is only when they apply that knowledge to a specific trade that they will shine in their jobs. Skill based training or vocational training not only enhances employability but also drives the competencies in students to prepare themselves for various disciplines. Skill based education can be introduced at secondary or higher secondary level, this will enhance the job opportunities for them also who are equipped with on-the job training. The skill-based education is the necessity for future education.

2. Internship –Promising Tool in Career Readiness:

The topmost purpose of education is to make a work for oneself in one's chosen field of work. If the students are exposed to real life job experience, they will be prepared better to get that job. Internship can offer a close acquaintance with the corporate environment and job culture. It will also extend the classroom experience of the students, to finalize them with the job environment. It is when students begin to actively participate in campus organizations that they will land up in better organizations. Thus, internships are important to provide the much needed experience that returns into a permanent job.

3. Personalized Learning Programmes:

Personalized learning is an educational approach that aims to customize learning for each students' strengths, needs, skills and interest. Students may learn same skill at different places. It is the opposite of the "one size fits all" approach used in most schools. Personalized

learning may help reduce the stigma of special education. It involves students in deciding their own learning process, teaches their vital skills helps students to develop self-reflective abilities.

In a study by the Gate Foundation³ using personalized learning to supplement math instruction, substantially improved students' test scores. Results show that students attending schools using personalized learning made gains in math and improved their knowledge significantly.

4. Digitized Learning–App Based Learning: Digitized learning is any type of learning that is accompanied by technology or by instructional practices that makes effective use of technology. With the onset of online teaching-learning, education has surpassed the geographical boundaries, and has enabled the students to enroll and complete their education from any part of the globe. Digital learning has been included in education system a few years back and got a tremendously positive response from the students and also parents.

Online learning or "e-learning" is education that takes place over the internet. The internet has significantly changed the communication with one-another. Online learning is catalyzing a pedagogical shift in how we teach and learn. There is a shift from passive students to a more interactive, collaborative approach in which students and teacher co-create the learning process. For online digital learning there are plenty of free online courses available. They are massive open online courses (MOOC) which are courses aimed at unlimited participation and open access via web. They offer variety of courses, and they are open to everyone. MOOC provide an affordable and flexible way to learn skills, career advancements and quality educational experiences at scale. Some of the better known MOOCs are: Future learns, Udacity, Coursera, OPEN2STUDY, edx, University of the people and many more.

Today, we live in age of Apps. It seems that no matter the line of work, there is an App to make it easier. Apps in schools can make students more interactive and activate better bonding between teacher and the students. Some of the best apps for teachers and students are listed below:

Kahoot, Spellwizards, Google classroom, Remind, See Words: Teacher, Edmodo, Class Dojo, Only office Documents, Book Creator, Nearpod, Socrative Teacher, Explain Everything Whiteboard and many more. These apps are being used by teachers for online teaching learning.

Now a days there are various online learning mobile apps are available, eg. BYJU's- The Learning App, Extramakers-The Learning App, Vedantu: Live Learning App and so on. A host of open source educative sites are now available to students to educate them about any topic under the sun.

5. Blended learning-blending the face to face and online learning: Blended learning is an approach to education that combines online educational materials and opportunities for interaction online with traditional place-based classroom methods.

- Blended learning involves courses that integrate online with face-to-face activities.
- Courses that are taught both in classroom (face to face) and at distance.
- Mixing or combining instructional technology with actual job tasks, in order to create a harmonious effect

of learning and working.

- Combining computers with traditional teaching.

There is a general believe among educational innovators that blended learning has three primary components:

- In person classroom activities facilitated by a trained educators.
- Online learning materials, often including pre-recorded lectures given by that same instructor.
- Structured independent study time guided by the material in the lectures and skills developed during the classroom experience.

A course created in a blended learning model uses the classroom time for activities that benefit the most from direct interaction while lectures can be videotaped ahead of time so the students can watch on their own time. This blended learning model refers to the flipped classroom in which students are expected to watch online at home and do homework while they are in class. In a Flipped classroom, students study the content on their own, and then the instructor uses classroom time to guide students through activities and answer questions. In this context the teacher becomes a supporter and facilitator and helps students in the transition process from knowledge to the acquisition of skill and competences.

6. Edutainment: Educational entertainment or edutainment is a novel concept of blending entertainment with learning. It is a form of entertainment designed to educate as well as to amuse. Edutainment typically seeks to instruct its audience by embedding lessons in some familiar form of entertainment, television programmes, computer and video games, multimedia software and so on. Relying on media as an instrument to impart education has its own benefit, brightening the future of students by sharpening their creative skills. The technological advancements have created a whole new category of edutainment tools and programming that connect to the emerging interest in using educational technology to enhance teaching and learning. Educative Podcasts, videos and recorded audio-video lessons are the latest educational trends that will promise a beautiful makeover to the traditional classroom type of teaching and learning. These trends of education have significant implication in facing the challenges of the greatest threat in our lifetime to global education, amidst Corona virus (COVID-19) pandemic.

The world is passing through a very tough and unpredictable phase in our life. COVID-19 has changed substantially, the way we live. Many newly emerged burning issues challenge us. In this COVID era, many alternatives are forced to develop to substitute the old style of functioning of teaching-learning process, as drastic changes are taking place in the field of education. Every challenge opens up a new opportunity also. Education sector has tremendous challenges and possibilities during this “social distancing” era. Virtual learning has already become an accepted reality of education system.

The International Association of Universities is closely monitoring the impacts of COVID-19 on higher education around the world. IAU is an independent global NGO and officially associated with UNESCO. It developed a first

global survey on the impact of COVID-19 on Higher Education. The Report⁴ of the survey on Effect of teaching-learning writes that “almost all HEI’s, COVID-19 affected teaching and learning. Two-thirds of the HEI’s reported that classroom teaching has been replaced by distance learning, and one quarter that most activities are currently suspended by the institution is working on developing solutions to contain teaching-learning through digital or self-study means.”

This Report suggest that majority of the institutions are working on developing solutions to continue teaching online. But most of them have been confronted with a sudden and unprepared shift to online teaching to continue teaching-learning activities and to engage and motivate students when social distancing is being followed. Since, online teaching-learning is going to continue for some time, the educators are to be aware with the existing digital platforms and softwares used for digital education. This would enable us to face the challenges of digital education better. The major digital platforms which can be used for teaching learning are as follows:

- Conferencing Apps: Google Meet, Google Classroom, Zoom and Webex.
- Online Radio: Cheapest way of online classes having audio only.
- Television Channels: Audio-Video and Multimedia contents are telecast.
- Diksha: A project by MHRD Govt. of India, to empower teachers in digital environment.
- National Repository of Open Education Resources (NROER): It was established in 2013 by MHRD. Audio-Video documents and interactive contents are available online.
- SWAYAM: SWAYAM is a programme initiated by Govt. of India aimed at offering everyone, easy access to high quality digital aides and resources.
- SWAYAM PRABHA: This is a Group of Satellite channels in DTH using GSAT 15 Satellite. 12 SWAYAM PRABHA channels are there to promote digital learning.
- Youtube: Youtube is the largest source of digital learning materials being used today.

Many other initiatives under digital India programme are in making. The challenges before the education system today are many. Students and teachers are forced to make a rapid change to online teaching-learning. Online classes have its own limitations too. The first obstruction is the non-availability of high-speed internet in rural and remote areas. Secondly, a large number of students still cannot offer to buy good quality Smartphone or laptop due to financial crises which is necessary for the online educational system. Thirdly, to make digital education effective, the teachers must be equipped with the skill of knowledge delivering through digital platforms. We are going to face revolutionary changes in teaching and learning in the near future. Academicians will have to find out a suitable mechanism for effective teaching-learning process. Online education will be a temporary solution though online education is, in no way a substitute for classroom teaching, we have no option but to forcibly adjust with it. And even after this unprecedented period, the digital method of learning is to stay here as a supporting platform.

In this challenging situation we must realize that every

challenge we successfully conquer serves to strengthen not only our will, but our confidence, and therefore our ability to confront future obstacles.

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