

A study on the effectiveness of learning frameworks of Education 4.0 in Management, Engineering graduates and working professionals

Traditionally, education involved a step-through linear process where the seeker first learns, then analyses and finally implements. In the Indian context, from Gurukul to modern educational institutions, this has been the format that was religiously followed till the beginning of this century. *Shravana, Manana* and *Nidhyasana* – Learning, reflecting and analysing what was learnt and finally using the knowledge for the right reasons.

Roughly, this translates to ‘attending classroom’ sessions where the teacher introduces the concepts to the student, followed by the student comprehending and further researching on the topics via homework and projects, and finally implementing the knowledge gathered for practical purposes – at workplace or for solving a real life problem.

With the advent of technology, online learning portals and sudden influx of information-at-fingertips – a student now has access to subjects that were earlier available only in printed form or had to be orally taught by a teacher. Moreover, corporates today actively encourage their employees to continuously upskill themselves – through the concept of ‘learning by doing’ – there by breaking the traditional step-through process and making way to newer, iterative learning methodologies.

In a fast changing technology world, Education has moved from being a monologue discourses to dialogues and debates to ‘poly’logues. Education in structured classrooms have become multi-directional: teacher to student, student to teacher, teacher to teacher and student to student. Today, the teachers are evolving as facilitators of knowledge. Teaching strategies which are more student centred is being suggested – in the form of flipped classrooms, flipped mastery, flipped adaptive learning and many such variants. With more platforms such as Udemy, YouTube, TedX, codejams, hackathons – education has truly become more accessible.

A COVID19 like pandemic event has also ushered in a new era of digital transformation in the field of education – where the ‘face-to-face’ to ‘face-time’ quotient has increased quite exponentially – and has forced young students and parents alike to embrace digital multi-directional learning as a new normal.

Education 4.0 is in its early days and with AI-powered hyper personalized digital learning possibilities, we will see a paradigm shift in the way universities and colleges operate.

Management, unlike Engineering, is learning through documented experiences. Theory is understood or created post-facto, by reverse engineering successful and unsuccessful stories. Most Management schools rely heavily on case study based teaching methodology – as case studies act as a great segue to introducing managerial concepts to the students.

The research scholar, based on his industry experience of 15 years, has seen ‘learning by doing’ work quite well, and believe that management education has a classic natural fit to the flipped learning model – and neatly sits at the centre of Education 4.0.

Through this research, an attempt is being made to study 1) adoption level of digital learning 2) key perceptions of stakeholders (students, parents, faculty, management) towards digital learning 3) effectiveness of flipped model by conducting controlled experiments among professionals, management and engineering students 4) provide recommendations of the learning framework in the Indian context.