

CHANGING ROLE OF HIGHER EDUCATION IN THE 21ST CENTURY

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Abstract: Education has evolved around the centuries from the traditional Gurukul system to the new age digital online learning. There has been great development in the teaching methodology in the 21st Century and also in the teaching pedagogies and curriculum. There has been a paradigm shift from teacher centric teaching to student centric teaching. Various curriculum theories have been published since 20th century and also debated in the interest of educating students in the best manner. This objective of this article is to capture the evolution of higher education and discuss the future challenges in 21st century. This study is based on government and private sector has gone up manifold all over the world and its important to know if the quality education takes the front seat than revenue. This study also explores the Universities and Ministry of education focus on quality education in India. The study is done based on Secondary data and the changing role of higher education is captured to gain insight on how the education system is progressing in general and around the globe and in particular in India. The number of Universities are increasing in the 21st Century and the teaching methodologies are also changing with advent of Information and communication technology(ICT).

Keywords : Higher education, teaching pedagogies, curriculum theories, digital learning, student centric teaching.

Introduction: We have heard of Ancient Gurukul way of teaching where the Guru or the teacher will take class for his students even under a tree and the students mostly by hearing to the guru will absorb his teachings which was followed with much respect and discipline followed by the students and imparted by the gurus in the traditional way. Ever since the Gurukul system of education in India, the school education followed a Sage on stage approach. Over the past few decades, teachers have started to believe that a guide on the side approach is critical for deeper learning to take place among students(Prakasha et al` 2020). This Gurukul system has much educational value and hence even now in the modern 21st century also Gurukul system of

teaching is followed in some places in some disciplines. There is a saying in tamil, “matha, pita, guru and deivam,” which means, first mother, then father, then teacher and last is god which is the order of hierarchy told in olden days. It shows the importance of a teacher.

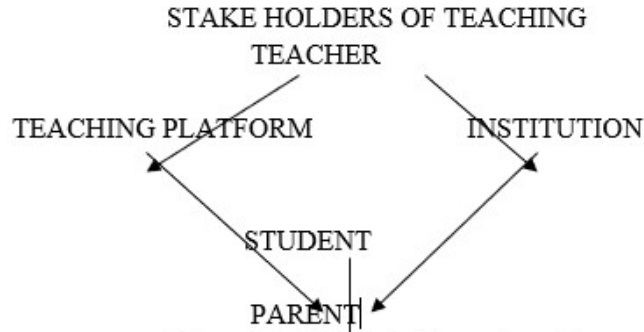


Figure No.1. Stake holders of teaching

Stake holders of Teaching involves the teacher who is important stake holder and imparts knowledge and the institution which provides the infrastructure required for teaching, a proper teaching platform which may be a physical class room or online as we follow now, the student whose learning is the focus and their parents who support and guide them at home. All the above aspects need to synchronize well in an education system in order that the student is most benefitted out of it. But there are some cases in which the institutions are most benefitted economically. Private the educational institutions are required in the benefit of students, but educational institutions main motive should not be making more money and education filed should not be converted in to a commercial business organization where sales and profit making will be the main motive.

Higher Education in India in vedic period: A Historical Journey from Ancient Indian Higher education is not a new phenomenon where as it has a long historical and traditional root on which the present system of education has been developed. The institutions of higher education are acknowledged as the most significant agency of social change for the human resource development of the nation. The historical journey of our higher education had been started with Vedic system of education and in the ancient time. Brahminical education had developed during the Vedic period. Rig Vedic education was concerned with an effort to preserve the contemporary religious texts through oral transmission. The educational institutions of those times contained of small domestic schools run by a teacher (guru, rishi) who usually admitted learners for instructions in the house of the teacher. The most important feature during Vedic period was that women were admitted to have full religious rights and educational facilities and women enjoyed equal status with men in all domains of education Later on Vedic period of education witnessed a continuity and some transformation in the educational system. There were three types of educational institutions that existed in the later Vedic period (B.C. 1000-B.C.600). The first one was the usual system in which the teacher, as a settled householder, admitted pupils of a tender age for the instruction. These students left their home for study after the initial

ceremony for learning called upanayana. Secondly, debating circles and parishads were other types of learning centres where students discussed and debated on various aspects of knowledge. The third type of institution was represented by conferences summoned by kings in which the representatives of various schools participated.

Education during Buddhist period Now let us analyze and learn the nature and features of Buddhist form of education which was religious as well as secular. The learners were usually monks and also the teachers(Dahiya, 2016).The most central aspect of Buddhist form of education was that it continued to remain open to all people irrespective of castes except slaves, armydeserters, the disabled and the sick. It developed out of the teachings of the Buddha as classified as Vinaya (monolithic discipline), Sutta (group discourse) and Abhidhamma (works of doctrine). Buddhist education was centred in monasteries and was in the hands of the monks. We can, with no doubt, claim that the first institutional education centres were started during this period and in some ways, aspects of these educational institutions can be compared with modern universities . The Buddhist education curriculum encompassed Vinaya, Sutta or Suttanta, and Abhidhamma, together with Suttas and Sutta Vibhanya which were mostly taught orally. A Buddhist text includes numerous disciplines or subjects such as the Lokayata system, the four Vedas and Vedangas, Astrology, Medicine, Astronomy, poetry, interpretation of omens, the philosophical system of Samkhya, Yoga, Nyaya and Vaisheshika, Witchcraft, Music, Magic, the art of War, and a number of arts and crafts as well as Arithmetic.

Taxila/ Takshshila It was the most famous Buddhist seat of wisdom of higher learning. The Greek travelers, namely, Arian and Stravo had narrated the prosperity of Takshshila. It was popular especially for the school of Medicine, Law and Military Science, Astrology, Agriculture which, by midway through the 6th century, had attained an admiration as a great centre of learning, alluring scholars from distant parts of India.

The Universities of Nalanda, Vikramshila and Vallabhi These universities were, perhaps, the most vital and significant universities of ancient India. Nalanda University was a centre of learning for knowledge seekers of higher studies which was situated in Bihar and was popularly known for Buddhist studies, attracting scholars even from China, Nepal, Tibet, and Korea. The University curriculum included a extensive variety of topics such as Brahminical and Buddhist, Sacred and Secular, Philosophical and Practical. The entrance examination was very tough. The teaching methods used were oral, explanation of books, lecture, dialogue and in addition to these many other approaches, namely, Bhikshatanam, shram, parishad, GoshtiCharan were used.

Higher Education during Mediaeval period in India :The Mediaeval era in the history of India is denoted as a major point of social and cultural synthesis. As per Alammuzzafar (1991),the history of education in mediaeval period echoes a part of the wider study of the history of society, social history mostly interpreted with politics, economics and religion. The Madrasah as a System of Education By the 11th Century A.D. Madrasahs or colleges had

developed as the learning centres of higher education and learning with a specific intention to promote religious knowledge. They were mostly theological institutions, providing instruction in language and other secular subjects as a secondary activity, and were maintained or aided by the government of the time. The Madrasahs were usually attached to mosques in the same way as the Maktabas. *It's accepted phenomenon that Madrasah had played a vital role in preaching the gospels of the great faith Islam. In the meanwhile, they dodged to keep their level with the modern education due to certain vincible hitches. At the threshold of the Islamic education, Muslim youth of Madrasahs are unable to have modern education because of which they become peregrinators (Wani,2012).* The courses of tutoring in the Madrasahs comprised of grammar, logic, rhetoric, theology, metaphysics, literature, jurisprudence and science. Few of the Madrasahs enjoyed the status of universities.

Higher Education in Colonial India :The traditional systems of education both among the Hindus and the Muslims were mostly religious and literary in character. The educational system during that period was based on ancient religious and philosophical literature of Sanskrit, Arabic and Persian. In addition to the Vedas and the Upanishads, the Hindu students specialized in subjects such as Medicine, Surgery, Astronomy, Music, Dancing, Painting, Magic and the art of warfare, while the Muslims studied, in addition to the Koran, Rhetoric, Logic, Law, Euclid, Ptolemy's Astronomy, other branches of natural Philosophy and works on Metaphysics. It is normally accepted that the existing university system in India is a creation of the British colonialist impact.

English Higher Education in India really began with the establishment of a Hindu College in Calcutta in 1817, the first "Europeanized" learning centre of higher learning in India. In fact, the current system of higher education in India has its roots in Mount Stuart Elphinstone's "minute" of 1823 in which he emphasized for the creation of schools for teaching English and the European Sciences. Consequently, Macaulay, in his "minute" of 1835 specified that the objective of the British government must be "the advancement of European literature and science amongst the natives of India." Macaulay reflects the view that English education was necessary for the Indian Higher education system. On the other hand, McCully (1940) reported that Indians continuously demanded an English style of higher education because it provided high status and prestigious jobs in the British bureaucracy or in the growing commercial sector of the economy. The idea of establishing universities in India on the model of the London University (i.e. universities of the affiliating type), was first promoted in Sir Charles Wood's Dispatch of 1854 (Ghosh et al,1975)which has been described as the Magna Carta of English education in India. One major indicator of the development of Higher Education system is Gross Enrolment Ratio (GER). Gross Enrolment Ratio (GER) simply means that the total percent of enrolment in higher education from 18 to 30 age group of total population of a country. Most of the developed nations possess a very high GER in higher education of more than thirty percentage. The GER of countries in transition is between 10 to 30 percentage. Poor countries are having an enrolment

ratio less than 10 percentage. Due to efforts of international agencies and countries specific, there is a trend to massify higher education system all over the world. More than 100 million students enrolled worldwide in higher education. This indicates that higher education has moved from an elite enterprise to a mass phenomenon.

Components of Higher Education Curriculum

Before we discuss the western perspectives of curriculum at higher education, it will be worthwhile to have a peep into the basic elements of curriculum. Ralph W Taylor(2013), in his seminal work, ‘basic principles of curriculum and instruction’, detailed the four major components of curriculum. According to him, the first element of curriculum construction is setting up of educational objectives. Identification of relevant subject matter or content is the second aspect of curriculum engineering. Selection of suitable instructional strategies appropriate to the content and level of students is the third element of curriculum designing.

The last element is assessment practices to be followed to check whether educational objectives are attained or not. Before discussing western perspective of curriculum at higher education, let

Educational outcomes/objectives

Educational objectives are core to any levels of education. Educational objective of a particular level and subject contributes to the goals of education in that country. Beyond this, they reflects universal aims of education as well. Educational objectives are the specific expressions of broad and far reaching goals of education. Educational objectives can be classified as cognitive objectives, affective objectives and skill objectives. Cognitive objectives emphasize intellectual and knowledge outcomes of the learner after instruction.

Educational outcomes

There is an increased emphasis in number of education systems in Western countries on preparing learners through the development of broad learning outcomes or general competencies. This growing trend indicates that the main intention of teaching learning process is not for retention and repetition of knowledge acquired but application of these knowledge in different contexts. Our present-day world is more and more uncertain, continually changing and presenting new challenges. It requires individuals to expand and apply new understandings and to adjust to new ways of doing things. To address these challenges it is increasingly being proposed that, across subjects and learning areas, the curriculum needs to develop student competency in such areas as: Most of the countries in west Europe and United States focuses on learning outcomes related with communication, collaboration, critical thinking, problem solving, creativity and learning how to learn.

Teaching Learning Process

Conventionally, lecture and other expository methods dominated the field of higher education. Most of the recent researches in education search for innovative and learner centered pedagogic

techniques. Hence, there is a shift in emphasis recently from teacher to learner. Teachers' role began to consider that of a facilitator. Learners actively involved in learning process rather than the passive listeners of teachers' lecture. This trend in teaching learning process was more evident at school education. This shift in emphasis is a trend in teaching learning process in most of the western countries including United States and UK in their higher education in late 1960s and early 1970s. They began to use projects, seminars, assignments and other self-learning techniques in the pedagogy of higher education. Another remarkable change in the higher education of Europe and United States is the introduction of technologically assisted pedagogy.

Higher Education in India

As per the All India Survey on Higher Education (AISHE) 2017-18, the Gross Enrolment Ratio (GER) in Higher Education is 25.8% and the total enrolment in higher education in the year 2017-18 was 36.6 million with 17.4 million girls and 19.2 million boys. The GER target was 25.2% at the end of Twelfth Five Year Plan in 2017 and 30% by 2020. India's higher education system is the third largest in the world, after China and the United States. The main governing body at the tertiary level is the UGC so far (University Grants Commission) which enforces its standards, norms and timely intervention to the government to coordinate the educational matters between central and state government. The structure of the higher educational institutions are 1) universities and university-level institutions, 2) Colleges and finally 3) Diploma/Certificates awarding institutions. These institutions are mainly categorized on the basis of funding source: central and state governments and private agencies. India plays more stress on science and technology in the tertiary level of education. Hence Indian institutions consisted of a large number of technology institutes and now India global acknowledgements of our institutions, IITs and IIMs could achieve global recognition to a certain extent where as several of our universities and institutes fail to produce neither world class skilled workforce nor improvement in quality research and innovations. In the present 21st century digital technology has facilitated online learning accessible for students and Government of India is also promoting online courses through Swayam MOOC's massive open online courses and there are various other sites like Coursera, linked learning and even foreign Universities offering free and paid short term online courses with certificates and credits and it has created interest among students as well as among teachers to update their Knowledge.

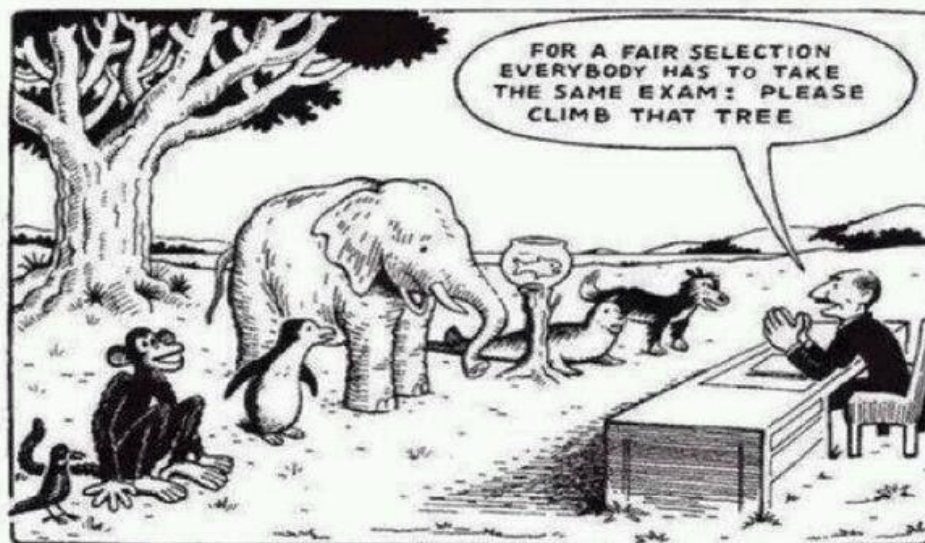
Outcome based education

Outcome-based education or outcomes-based education (OBE), also known as standards-based education, is an educational theory that bases each part of an educational system around goals (outcomes). Outcomes -based education [OBE] is currently favored internationally to promote educational renewal and has been implemented in countries such as Canada, the United States and New Zealand (Malan SPT, 2000). By the end of the educational experience, each student should have achieved the goal. Outcome-Based Education (OBE) is a student-centric teaching and learning methodology in which the course delivery, assessment are planned to achieve stated

objectives and outcomes. It focuses on measuring student performance i.e. outcomes at different levels. It has been introduced in India from 2014 onwards and now being followed in almost all Universities across India.

Outcome-based methods have been adopted in education systems around the world, at multiple levels. Australia and South Africa adopted OBE policies in the early 1990s but have since been phased out. The United States has had an OBE program in place since **1994** that has been adapted over the years. Active learning methods like flipped learning, group discussion, case studies, role play, fish bowl, think-pair-share, respond-react-reply, round table, etc., have also been introduced which makes student think on the topic and express his views instead of just memorizing and reproducing. In recent years Blooms taxonomy levels have been introduced in almost all Universities across India and the exam question papers are being prepared based on Cognitive style using BTL(Bloom, 1956). This has made some progress in student assessment method to bring out the learning from students using various action verbs grouped in six category namely remembering, understanding, applying, analyzing, evaluating and creating.

Even though new system of education is being introduced the assessment methods almost remains the same and needs a drastic change. As suggested by Einstein our education system applies same assessment method for all students whereas there are various skills among students and students are specialized in different types of skills, which need to be changed.



Our Education System

Everybody is a genius. But if you judge a fish by its ability to climb a tree, it will live its whole life believing that it is stupid.

Figure No.2 Our present education system by Einstein

Despite significant progress over the past few years, Indian higher education is confronted with mainly four broad challenges:

(1) The Challenges related to the central pillars of education: The three central pillars of the government's plans for education reflect these realities: access, equity and quality. India has a low rate of enrolment in higher education, at only 18% when compared with China (26%) and Brazil (36%). By 2020, the India aims to achieve 30% gross enrolment and hence the facilities and quality of education must be increased.

(2) The poor quality of teaching and learning process. The education system is affected by issues of quality in many of its institutions: there is an excessive shortage of faculty, poor quality teaching, outdated methods of transaction, rigid curricula and pedagogy, lack of accountability and quality assurance.

(3) Limitations on research capacity and innovation: At present the Ph.D. enrolment is very low and we don't have enough high quality researchers. There are few opportunities for interdisciplinary and multidisciplinary research. We have a lack of early stage research experience and low levels of industry engagement which in turn create a weak learning ecosystem for innovation.

(4) Irregular growth and access to opportunity: in the social set up, India remains highly divided and allocated and hence access to higher education is uneven with multidimensional inequalities in enrolment across population groups and geographies.

Prospective Vision for India's Higher Education

Even though global factors, rapid internationalization of education and global competition for talents influenced the changes in our education, it is mainly economic growth, demographics and politics that transformed India's higher education. As a result higher education in India suffers from several systemic deficiencies. And hence it continues to provide graduates that are unemployable despite emerging shortages of skilled manpower in an increasing number of sectors. The standards of academic research are low and declining. Some of the problems of the Indian higher education, such as – the unwieldy affiliating system, inflexible academic structure, uneven capacity across various subjects, eroding autonomy of academic institutions, and the low level of public funding are well known. Hence our higher education system needs systemic reforms and high quality affordable education system. It is possible only when we have a strong framework which defines the mission and vision of higher education. In this context we must have a prospective and future vision for our higher education system. And for that the present higher education should focus on five aspects to become a contributing nation to the global village.

1) Promotion of Research and Innovation

We know that India is a country with untamed and unexploited potential getting ready to be actualized. The fundamental driver behind any innovation process is the human factors associated with it. To utilize its maximum potential of physical and human resources there stands the necessity to think afresh the new research and innovation. To clarify the ideal research e

2) University and Community Partnership

The establishment of the mediaeval universities can be traced back to the University of Bologna in 1088. It was envisaged for the teaching and later on as centuries passed, research also became part and parcel of the activities in the universities. In India, the post-independence phase of higher education saw universities as centres of teaching and research. Radhakrishnan Commission, for first time, after independence suggested the need for extension activities of the teachers, of course universities, as prime important function other than teaching and research ecosystem.

3) Emphasis on Skill Development

We all know that India is a rapidly changing economy. Every year a large volume of rural skilled labor force is migrating to the cities for better paid jobs. This constitutes a heavy drain on rural resources, economy and self-sufficiency. On the other side, India is expected to become one of the most populous nations by 2025, with a headcount of around 1.4 billion. India is also expected to have the largest workforce in the world by 2025. With such a picture of Indian demography, the government and policy makers must show intense commitment towards skill development. In this context our education sectors must be strongly linked to industries. Industries must work with educational institutions, to better train the workforce, and to keep industry competitive.

4) Promoting Open Online Courses

The growth of distance education can be traced back to the period after independence when India faced the problem of educating millions of students at all levels. Later, in order to expand the facilities of education in India by providing a less expensive mode of imparting higher education, UGC had appointed an expert committee under the chairmanship of Dr. D.S. Kothari to explore the possibility of starting correspondence courses in few selected universities and as the recommendation made by this commission, University of Delhi started the pioneer effort in 1962. This may be considered as the genesis of open and distance learning in higher education in India.

5) Focus on internationalization of higher education

With respect to higher education, though there are numerous limitations, Indian education is internationally accepted and recognized. Many of the Indian teachers and students are recognized process, curriculum and teaching learning process. For that we must adopt various strategies to attract foreign students to India.

CONCLUSION

Education in India has many choices and plenty of Private Universities and governed by government bodies like UGC, AICTE for technical education and ministry of education. The new education policy in India has brought some interesting changes in our education system which has been much debated in present webinars and our Universities need to focus on producing skillful, employable graduates with good communication and technical skills. The present educational endeavors are done mostly through online and every effort should be taken for uplifting our education to an international world class standard of education. The world is changing with the advent of emerging technologies such as artificial intelligence, machine

learning, and block chain. In fact, it is now widely believed that the next industrial revolution is going to come from new-age technologies. The technological change has created a revolutionary change in the education sector. Digitalized education is very helpful for students to learn comfortably at home even using their smart phone, tablet or laptop (Seethal k & Menaka, 2019).

But the moot question that pops up at our face is, do we have skilled manpower to drive that growth? The answer is 'No', according to CP Gurnani, CEO and MD of Tech Mahindra. The top 10 IT companies take only 6 per cent of the engineering graduates and he says 94 % of Indian Engineering graduates are not employable. India is now No.1 in highest unemployment in the world. McKinsey's report had said that only 25 per cent of engineers in India were actually employable. Given the situation our country has very good human resources and highest young population in the world in the age group of 18- 24 and teachers, Universities, government and technical resource companies should work together to provide a good learning system for students and motivate their critical thinking and make them work with innovative ideas and get employed easily.

References

1. Prakasha, G. S., Sarah, H. H., & Hemalathaa, K. Y. (2020). Examining Learner Agency in Online Teaching. *Universal Journal of Educational Research*, 8(12), 6509-6516.
2. Alam, Muzaffar. 1991. Higher Education in Mediaeval India. In Moonis Raza (ed.), *Higher Education in India: Retrospect and Prospect*, AIU, New Delhi.
3. Dahiya, M. S. L. Development of Education during the Buddhist Period.
4. Wani, Hilal Ahmad. "Madrasah Education in India: A Need for Reformation." *ATIKAN* 2, no. 2 (2012).
5. McCully, B. T. (1940). *English education and the origins of Indian nationalism* (No. 473). Columbia University Press.
6. Ghosh, Suresh Chandra. "Dalhousie, Charles Wood and the Education Despatch of 1854." *History of Education* 4, no. 2 (1975): 37-47.
7. Tyler, Ralph W. *Basic principles of curriculum and instruction*. University of Chicago press, 2013.
8. Malan, S. P. T. "The New paradigm of outcomes-based education in perspective." *Journal of Consumer Sciences* 28 (2000).
9. Bloom, B. S., Krathwohl, D. R., and Masia, B. B. (1956). *Taxonomy of Educational Objectives: The Classification of Educational Goals*, New York, NY: D. McKay.
10. Seethal, K., & Menaka, B. (2019). Digitalisation Of Education In 21ST Century: A Boon Or Bane. *Higher Education*, 43, 196.
11. www.litercay.unisa.edu.au