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Integration of Modern Methods of Teaching and Learning System In Higher Education

Rane Nita Trimbak

Department of Marine Sciences Goa University, Taleigao Plateau, Taleigao-Goa 403206 India
Email: nitags1805@gmail.com Mob. 9881499936

ABSTRACT

Higher education system in India is one of the third largest educational systems in the world. Education promotes mobilization and encourages people to participate in development activities. It represents vital means for any country to nurture its economic development and social cohesion. It is aimed at multi dimensional development of the personality of the student. Ideals of education should be correlated with the ideals of life. The world scenario indicates that there is an increasing interest in quality assurance in higher education and is the main concern in policy framing which has been made mandatory to obtain accreditation for higher educational institutions (HEIs) by the National Assessment and Accreditation Council to improve quality education. IQAC is responsible for initiating, planning and supervising various activities which are necessary to increase the quality of the education imparted in the institutions. Analysis of the current practices of accrediting agencies of various countries reveals a great deal of diversity. Variations can be seen in the methodology, the nature of the process, the unit of assessment, the outcome of assessment and the policy on disclosure of the outcome. Quality assurance has a major role to play in signaling excellence of students. The need for quality assurance in higher education has become more pressing in the context of the massification of tertiary education. In the 21st century internationalization constitutes both a necessary and a critical element for all higher education systems. Higher education services should cross the national borders to be in par with international context.

KEY WORDS : Higher Education, Quality assurance, policy, development, methodology

*Corresponding Author

Rane Nita Trimbak

Research Scholar

Department of Marine Sciences, Goa University

Taleigao Plateau, Taleigao-Goa, India

Email: nitags1805@gmail.com

Mobile No 9881499936

INTRODUCTION

Education is major aspect in development of any modern society. It is generally seen as the foundation of society that brings economic wealth, social prosperity and political stability. Higher education is the aspect of education that is acquired by students after the completion of their secondary education. In today's competitive world, mostly people are not satisfied with their basic education and enter for higher education. In Higher education the students are organized for building upon their knowledge and skills which can be applied to solve different problems in their life. Higher educational institutions have the capacity to give quick responses to different problems in the society [1]. After graduation the students become leaders of tomorrow and get dispersed from the world of higher education into their specific career [2].

India ranks third in terms of largest system of higher education in the world after USA and China, that has been witnessing healthy growth in terms of number of institutions and enrolment of the students. Due to rapid expansion of privatized institutions the access to higher education has become possible but is a matter of concern on quality and significance in higher education. Higher education can play a crucial role in sustainable development of any nation but there is need to strengthen the higher education system not in terms of expansion but in achieving excellence to face the world of work. It has a large higher education sector with a long academic tradition. There are a small number of high quality institutions and centers that can form the basis of quality sector in higher education [3].

MATERIALS AND METHODS

Analysis of the data collected from sources AISHE Reports 2010-2018 (MHRD Govt. of India)[4].

RESULTS AND DISCUSSION

Present system of Higher Education in India

India educates approximately 10 per cent of its young people in higher education compared with more than half in the major industrialized countries. Almost all of the world's academic systems resemble a pyramid, with a small high quality tier at the top and a massive sector at the bottom. India has a tiny top tier [3]. Countries scientific, economic and technological development depends on higher education system. It provides opportunities for lifelong learning. The change in mind-set is necessary to achieve the vision which is a sustained, long-term effort to transform education at all levels of the system[5]. Higher education is generally organized into highly specialized areas of knowledge and

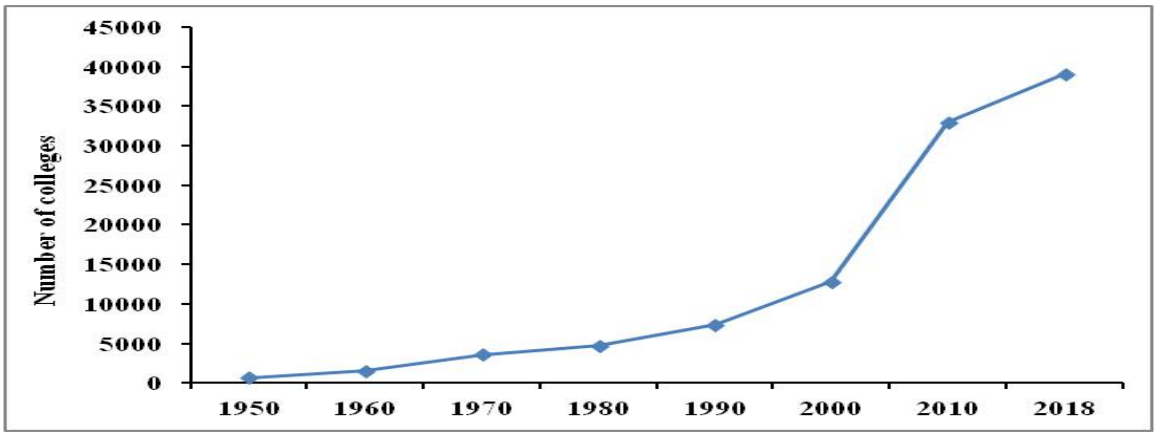
traditional disciplines. Higher education institutions bear a profound, moral responsibility to increase the awareness, knowledge, skills, and values needed to create a sustainable future [6].

Department of Higher Education frames and shapes the policies to be implemented in higher education in their respective states. The University Grants Commission is a statutory body which was established in 1956, is responsible maintaining standards of higher education in the country. Statutory Councils established by UGC promotes, provide grants, set standards and establishes professional education in different areas of the country. The colleges in every state are either run by the state governments or by the private trusts. Opening of University affiliation systems to private investors after 1992, has resulted in increase in number of higher education institutions.

Higher Education has witnessed phenomenal growth over the last many decades. In 1950 there were 695 colleges in India which witnessed a steady growth of 39050 up to 2018 (Table 1). Figure 1 gives the overall statistics of the colleges in India which shows an increasing trend of educational institutions for higher education from 1950 to 2018 as per the available reports. It was observed that the growth in the total enrolment in higher education was slow but steady from 1950 to 1980, but after 1990 the growth was very impressive (AISHA MHRD 2018)[4].

Table 1. Data on Growth of Higher Education Institutions in India

year	No of colleges (HE)
1950	695
1960	1542
1970	3604
1980	4722
1990	7346
2000	12806
2010	32974
2018	39050



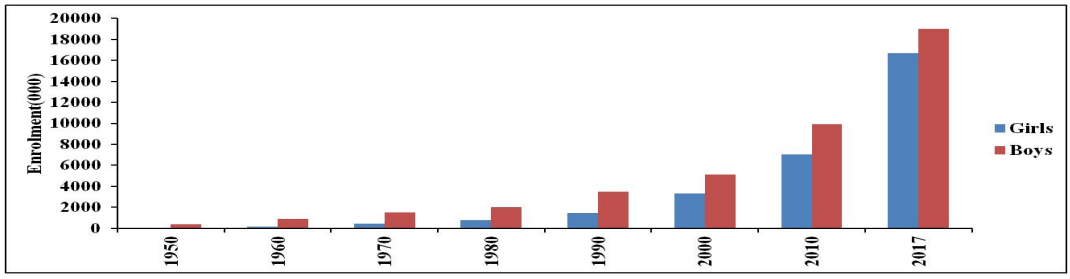
Source: AISHE - 2013 MHRD

Fig. 1 Growth of Higher Education Institutions in India

The percentage of students taking higher education is hardly about 13 % whereas the same is varying between 28 to 90 %, across the world. The lowest % being 28 % and the same is as high as 90 % in developed countries. Enrolment in higher education in 1950 was only 3.97 lakh but in 2018 it enrolment increased to 357 lakh, our achievement is noteworthy. Data on the growth of enrolment of boys and girls in HE is presented in Table 2 It is evident from the table that the increase in enrolment of female was substantially higher than that of male. There was increase in the number of girls student seeking higher education from 1990 till 2018 as per the available records (MHRD Report 2010-2018)[4]

Table 2 Growth of enrolment of boys and girls in HE (Fig in 000)

Year	Girls	Boys
1950	43	354
1960	170	880
1970	431	1522
1980	749	2003
1990	1437	3488
2000	3306	5093
2010	7049	9924
2017	16700	19000



Source: AISHE - 2013 MHRD

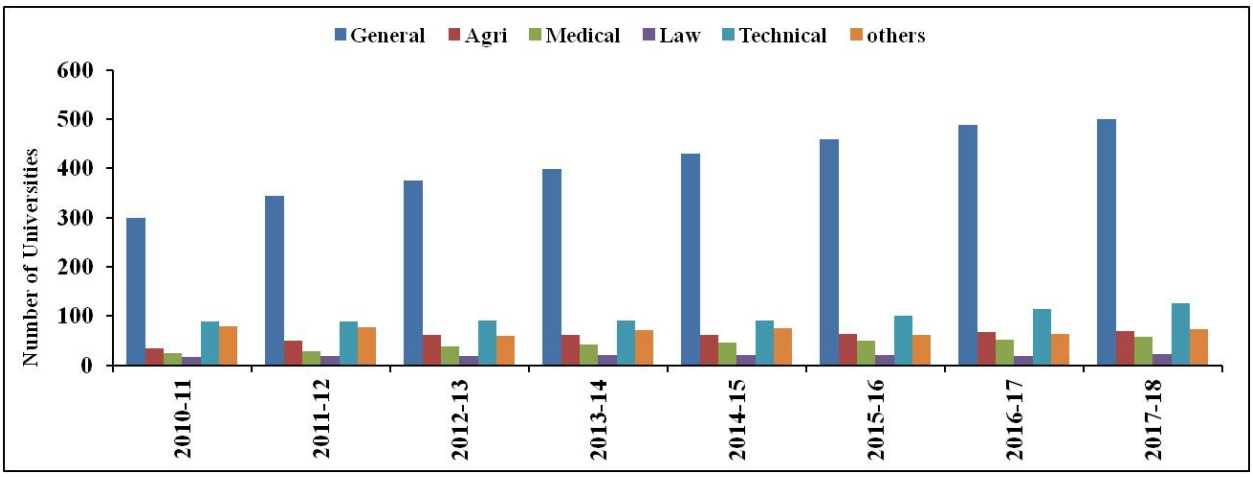
Fig. 2 Growth of enrolment of boys and girls in Higher Education (in 000)

Institutes of Sciences, Engineering, Management, Architecture, Pharmacy, Applied arts and Crafts and Catering Technology are funded by Central and State government and monitored by Technical Education cell under the Department of higher education Government of India

The data presented in Table 3 revealed that the major chunk of our product of higher education is from the general stream and the students graduating from the technical/professional courses constitute just about one-third of the total number of students graduating from the institutions of higher education (Fig. 3). Present education system has failed to produce trained and efficient labor force capable of employment/self-employment. We are producing a large number of graduates and post-graduates capable of white-collar jobs only. Since the supply of such jobs is less than their demand, unemployment is the obvious outcome.

Table 3 Data on different categories of universities in India

year	General	Agri	Medical	Law	Technical	others
2010-11	300	34	25	17	89	80
2011-12	344	50	29	18	88	77
2012-13	375	61	38	18	90	59
2013-14	398	61	43	20	90	72
2014-15	430	61	45	20	90	76
2015-16	459	64	50	20	101	62
2016-17	488	67	52	19	114	63
2017-18	500	70	58	22	126	73



Source: AISHE - 2013 MHRD

Fig.3 Graph on number of universities as per specialization of courses in India

The quality of higher education is related to employability, traditional academic standards, and is in terms of the quality of the educational process and to the value added by higher education for a given set of inputs. A high quality university education was identified in terms of inputs to the system (selection of students), process (teaching, learning, research) and outcomes (in relation to employability). Themes to emerge included self-learning, high quality university academics, innovation and research, sometimes with an explicit link to preparation for entry into the workforce[7]. National Assessment and Accreditation Council (NAAC) of India was established as an autonomous body in September 1994 by the University Grants Commission (UGC), as an outcome of the recommendations of the National Policy on Education (1986). It was intended both to assess and accredit institutions of higher education and to assess the quality of education offered by them. In independent India, the various regulations on minimum requirements for the establishment and expansion of institutions of higher education are well established.

Inspite of progress in the field of education our higher education institutions are not yet the best in the world – India has fewer than 25 universities in the top 200. In the learner-centered paradigm of

education, students are encouraged to take greater responsibility for their learning outcomes. As India's enrolment numbers grow, and access to higher education expands, the learner-oriented method has helped to sensitize educators to bring out difference in learning styles and also student expectations have shown diversity. The approach has enabled institutions to devise new and innovative ways to reach diverse learners, and it has also helped students discover and exercise their distinctive learning styles to channelize an educational pathway.

Drawbacks of Higher Education system with respect to methods of teaching

The success of any education system depends on the effective teaching/learning process. Teacher plays a crucial role in imparting and maintaining the standard of education. The role of teacher assumes greater significance in this deteriorating scenario of higher education. It is a difficult task for the teacher to improve the quality, quantity and equality in higher education at the same time. It is said that good teacher can bring the entire world to the classroom. The teacher has to play multidimensional role to heterogeneous group. Quality has become a key word in higher education. This can be made possible with modern methods of teaching and imparting knowledge. The responsibility to ensure the skills, understanding and output of the student is the main responsibility of higher education [8].

The problems of higher education in India are massive affiliating system, rigid academic structure, various subjects, and low level of government funding [3]. Standards of the majority of the institutions in terms of structure and faculty are poor and declining. The low quality of teaching and learning is arguable. The greatest challenge faced by higher education in India is the acute shortage of quality faculty. Most faculties are untrained in teaching methodologies; also we have an Outdated, rigid curricula and skills development. Very few opportunities for learning are available in interdisciplinary field. The teaching methods are focused on input and rote learning due to which students have very little opportunity to develop transversal skills, such as problem-solving critical thinking, reasoning etc. Student: Teacher ratio is high as a result of it there is tremendous pressure on the educators; there is lack of research experience at early stage [3]. The overall scenario of our higher education system does not match with the global quality standards as which gives importance to the overt curriculum and neglects the covert curriculum is not sufficiently equipped to achieve its objective. We are producing a large number of graduates and post-graduates capable of administrative and managerial job. Since the supply of such jobs is less than their demand, unemployment is the outcome of the present system of education [9].

Curriculum transaction process in higher education and quality of Higher education in Relation to teaching methods

It is believed that teaching and learning in schools were for short-term information accumulation meant to last only until examination. But rote learning still in practice in our educational system. Moreover, teachers remain unable to integrate teaching, learning and assessment[10]. Hence, continuous assessment required for supporting meaningful learning is also lacking. It is now felt that the quality of education that promotes rote learning and ignores the development of higher order cognitive abilities cannot be rated as high [11]. The NCF (2005) aims to guide the development and transaction of curriculum in schools and to address the problems of transmission of information and rote learning. It includes guidelines for curriculum transaction to make learning active, social and meaningful. The guidelines of Five year plan are: Connecting knowledge to life outside the school; Ensuring that learning shifts away from rote methods; Enriching the curriculum so that it goes beyond textbooks; Making examinations more flexible and integrating them with classroom life; and Nurturing an overriding identity informed by caring concerns within the democratic polity of the country.

Integration of modern methods of teaching learning in Higher Education

A sound education system is the prerequisite for the development of any nation. This is a well-known fact that our education system still relies on traditional methods and there is a need to combine the traditional teaching with modern teaching aids for a better and advanced education system. In the traditional teaching method, teachers illustrate the concept to the students with the help of chalks and blackboard. The main objective of traditional teaching is to pass the examination.

Use of high tech equipment in the educational institutions is increased with a rapid rate. There are lots of modern gadgets which can be used for improving the teaching in the classroom. Blackboard and LCD projectors can be used simultaneously. Teaching complex mathematical concepts involving equations be done using blackboard while theoretical subjects can be taught on a LCD projector with the help of power point presentation. Practical based subjects like sciences and engineering can also be taught best with the help of chalk and board and modern methods, the teacher can explain the theory on a blackboard and for better understanding of the procedure of the experiment videos or animations can be used. Teachers can teach the subject first through traditional chalk and board method and then take the help of modern teaching methods for revising the subject.

Modern methods of teaching include:

New instructional models in every classroom may be reconfigured for charging tablets and connecting USB ports, classrooms rich with interactive whiteboards, document cameras and lecture capture systems will support active learning environments. Telepresence systems, video and web conferencing expand classroom walls in online or distance learning scenarios to include participants

from anywhere in the world. In a flipped classroom, students can learn at their own pace, equipped with notebooks, tablets and smart phones, using classroom extensions that can be accessed at any time, and from any place. Adding network access and digital projectors to classrooms encourage the use of interactive content. New technology provides the means through which new instructional models take hold and flourish[14].

1. Use of computers or laptops with wi-fi connection in the classroom- This is the most important tool of modern teaching methods. Teacher demonstrates the subject on his laptop/computer which is connected to the laptops/computers of the students through wi-fi connection. This type of teaching is seen mostly in the higher education institutions which have good infrastructure.

2. Use of LCD projector in the classroom- The teacher prepares the power point presentation of the content of teaching and is displayed on the LCD screen with the help of a projector. The relevant videos of the subject projector can be displayed through the on the projector.

3. Use of interactive whiteboards in the classroom- On whiteboard a teacher or student can draw, write or manipulate images which provide a very interactive and interesting platform. The main advantage of whiteboards is that it can show anything on it which can be seen on the computer.

4. Other means of modern methods like Use of special websites or blogs for teaching in the classrooms are: Use of microphones for delivering the lecture in the classroom and use of e-library.

Modern teaching methods have several advantages such as, it creates more interest among the students with the use of interesting animations and videos, helps the students to understand the subject better and retain the concept for longer time, helps teacher to complete the syllabus in lesser time as they don't have to waste their time in writing on the blackboard and the modern teaching methods are more explanatory. The abovementioned techniques and technologies help create a much more exciting classroom; they at the same time are also useful tools to develop an instructor's own capacities and professional development. Some ideas that are worthy of exploration include the following. Modern methodology in US Developments in ICT and their Application in Education has influenced in improving access, enhancing quality of educational provisions and making education more learner-centered is the fast and revolutionary developments in technology applications in learning situations made possible by the developments in Information and Communication Sciences. The developments in this area have been fast and extensive. The following areas of technological development facilitated by the philosophy of openness have impacted all forms of education and training. 1. Technology mediated Open Distance Learning, 2. Open Educational Resources, 3. Learning Management Systems 4. Cheaper computing 5. Improved access to Internet, 6. Mobile reaches 7. Social networking.

In the interactive mode of teaching, students will be more equal participants in research based teaching and, hence, in the process of discovery, innovation and learning through and from mistakes. One of the effects is that they will learn to act and think as experts and will have a better notion of professional identity [12]. This will provide them with a higher sense of agency and purpose as they are going through the curriculum. There is strong evidence that active learning methods enhance the effectiveness of teaching and instruction [13] in a way that imparts deep understanding of concepts. A transformation to active learning will allow students to spend a significant portion of their class time on activities that require them to interrogate information in a variety of ways, from using electronic clickers to answer questions, to completing worksheet exercises and exploring problems through discussion with fellow students. Such interactive techniques also make learning more engaging, challenging, authentic and satisfying, whilst leading to better retention of learning outcomes. Innovative learning technologies include Digital and online technology which can fundamentally redefine the nature of the classroom. If delivered appropriately and to a high standard, courses that blend pedagogically-sound learning technologies can be highly effective, and participating students derive high levels of satisfaction. Classroom and laboratory time can be more interactive when study materials are available online before classes; teachers can get real-time information about students' learning; space and place can become flexible concepts, enabling participation from across campuses and across geographies; and international perspectives can be brought directly into the classroom.

We have the opportunity to create and expand our professional teaching toolkits. Open Educational Resources (OER), Massive Open Online Courses (MOOCs), hundreds of YouTube videos including those presented as TED talks, are some of the instructional material available to the students. Instructors need to be creative, committed and passionate about their profession and their role. Teachers have a key role to play in the making ourselves fully equipped to make our classrooms engaging, exciting and enriching. As new pedagogies and new technologies keep emerging, discarding old ways and adapting to new ways becomes essential. Our students must learn to be independent critical thinkers, to be societally and ethically responsible, and to have a broad understanding of the world.

Budget allocation by Govt. of India as per 2012 plan is about 6 % which is not going to be adequate, and therefore allocation must be made appropriately, i.e. minimum 10 % in order to improve the scenario. Government should also provide sufficient funds, annual schemes for unaided institution for enhancing overall support.

These are some of the points if we practice in a near future for increasing percentage of students seeking higher education, the scenario will certainly increase and students in turn will start adding value to the corporate world and towards the growth of our nation in the near future.

CONCLUSION

India has the third largest system of higher education in the world had traditional and typical education with Arts, Medical and Engineering. In the present and the modern education there are so many fields of education which are being promoted and developed which have given the students vast variety and alternatives as per their capability and their own personal interest. In a society of diversity, there was rapid expansion of privatized institutions that access higher education but it alarms at quality and significance in higher education. Higher education can play a crucial role in sustainable development of any nation but there is need to strengthen the higher education system not in terms of expansion but in achieving excellence to face the world of work. It was observed that the growth in the total enrolment in higher education was slow but steady from 1950 to 1980, but thereafter from year 1990 the growth was very impressive. UGC is the governing body of higher education, Department of higher education controls the government funded Institutes of Sciences, Engineering, Management, Architecture, Pharmacy, Applied arts and Crafts and catering Technology. The overall scenario of higher education in India at present does not match with the global quality standards . The present system of higher education which gives importance to the overt curriculum and neglects curriculum which is not sufficiently equipped to achieve its objective. Our education system still relies on traditional methods and there is a need to combine the traditional teaching with modern teaching aids for a better and advanced education system. The main objective of traditional teaching is to pass the examination but the modern teaching learning methods using high tech equipment will make it active and interactive. The National Assessment and Accreditation Council (NAAC) of India were established to assess and accredit the institutions of higher education and to assess the quality of education offered by them. Variations can be seen in the methodology, the nature of the process, the unit of assessment, and the outcome of assessment.

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