Article

National Education Policy 2020, India: A planned change management requisite for higher education institutions

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Abstract: Background: India's rich educational heritage dates to ancient times, with popular institutions like Nalanda, Takshashila, and Banarasi-Kasi flourishing as early as the 6th century BC, which offered diverse courses spanning medicine, mathematics, astronomy, and more. Invasions by the Mughals and British during the 12th to 18th centuries disrupted India's traditional education systems. Post-independence, India faced the challenge of transitioning from ancient to modern education. Remarkably, the country managed to preserve its popular traditional education through a strategic change management approach by the educational institutions. The Government of India has introduced in the National Education Policy 2020 (NEP 2020) in July 2020, to bring transformational reforms in school and higher education systems. In this manuscript, we have summarized the salient features of the NEP 2020 and the preparedness steps to its effective implementation in Indian educational institutions. **Method:** We have utilised standard databases like PubMed, Science Direct, or Google Scholar, and/or public domains and the NEP 2020 document for this literature survey. **Value addition:** NEP 2020 aims to ensure access, equity, quality, affordability, and accountability with more flexible curricular structure, and holistic approaches. Despite the COVID-19 pandemic's impact, dynamic planning, and collaboration among public and private institutions, and industries supported the effective implementation of NEP 2020. Notably, the change management approach, which has been a constant throughout India's educational journey, played a pivotal role in keeping pace with technological advancements and fostering growth in the higher education system in India.

Keywords: India; Education Policy-2020; change management; higher education

1. Introduction

India's higher education system dates to ancient times and is one of the oldest in the world. The earliest Indian universities such as Nalanda, Takshashila, Vallabi, Banarasi-Kasi, and Kanchipuram were established as early as the 6th century BC and these universities offered a range of courses in philosophy, medicine, mathematics, astronomy, and other sciences (**Figure 1**). In the medieval period, there existed two institutions Madrasah and Maqtabs, which mostly focused on building religious studies and leaders of the future (Ghonge et al., 2020; Winters, 2011).

Figure 1. Major ancient higher education institutions.

Higher education institutions of India

The modern higher education system in India was established by the British. During the British Raj, the government established several universities and colleges to promote Western education in India. The first university established by the British was the University of Calcutta in 1857 (Mukherjee, 2015). This was followed by the establishment of other universities such as the University of Bombay, University of Madras, University of Punjab, and University of Allahabad (Bansal, 2017). Since independence in 1947, the Indian government has made significant financial investments in developing the higher education system (Aalam and Selvan, 2022), with the establishment of the Indian Institutes of Technology and the Indian Institutes of Management (Tilak and Varghese, 1991; Tschurenev and Mhaskar, 2023). These institutes have provided a platform for the study of engineering, management, and technology-related areas (Hill and Chalaux, 2011; Mishra and Aithal, 2023).

2. Great Indian scientist—Ancient, medieval and modern periods

India has always been proud of its eminent scientists who have contributed throughout its history (**Table 1**). Ancient scientists of India include Aryabhata, Varahamihira, Kanada, Susruta, Charaka, Brahmagupta, and Bhaskara (Majhi, 2023; Mantu Kumar, 2023; SaralStudy, 2021). These scholars made significant contributions in the fields of mathematics, astronomy, medicine, chemistry, and other sciences. Aryabhata is credited with inventing the concept of zero and is considered one of the greatest ancient mathematicians. Varahamihira wrote the classic work Pancha-Siddhantika, which contains the five astronomical systems. Kanada is credited with

creating the Vaisheshika philosophy, an atomic theory of matter. Susruta is considered the father of surgery in India (Champaneria et al., 2014), and Charaka is the father of medicine (Bhavana and Shreevathsa, 2014). Brahmagupta wrote the treatise Brahma-Sphuta-Siddhanta, which contains the earliest known description of zero as a digit. Bhaskara wrote the treatise Siddhanta Shiromani, which contains his important astronomical and mathematical discoveries.

Table 1. Eminent scientists of India—From ancient to modern period.

Medieval Period Scientist	Modern Period Scientist
Jagadish Chandra Bose (1858–1937)—physicist, biologist, botanist, and archaeologist Birbal Sahni (1891–1949)—paleobotanist Sarvepalli Radhakrishnan (1888–1975)—philosopher Meghnad Saha (1893–1956)—astrophysicist Vikram Sarabhai (1919–1971)—physicist	C.V. Raman—Nobel Prize in Physics (1888–1970) Homi J. Bhabha (1909–1966)—nuclear physicist Subrahmanyan Chandrasekhar—Nobel Prize in Physics (1910–1995) Satish Dhawan (1920–2002)—aerospace engineer Hargobind Khorana—Nobel Prize in Physiology or Medicine (1922–2011) APJ Abdul Kalam, the Missile Man of India (1931–2015) Amartya Sen—Nobel Prize in Economic Sciences (1933–2021) Venkatraman Ramakrishnan—Nobel Prize in Chemistry (1952) Kailash Satyarthi—Nobel Peace Prize (1954) Abhijit Vinayak Banerjee—Nobel Prize in Economic Sciences (1961)

This information indicates that the Indian education system has produced many eminent scientists through its systematic theoretical and research training from the ancient period.

Today, India has the third-largest higher education system in the world, with more than 1113 universities and over 43,796 colleges (Ministry of Education Releases All India Survey on Higher Education (AISHE) 2020–2021) (**Table 2**). The Gross Enrolment Ratio (GER) in higher education in India is 27.3% (NEP 2020). The Indian higher education system has grown substantially over the past few decades, and expenditure of the Indian government towards education was 16.54% of GDP in the financial year 2019–2020. India's higher education system is divided into three sectors: public, private, and foreign universities ("International Initiatives and Trends in Quality Assurance for European Higher Education • ENQA"). The public sector accounts for most higher education institutions in the country, with over 1113 universities. These institutions are largely funded by the government and offer a range of courses from traditional disciplines such as engineering, medicine, and law to newer courses in management, computer science, artificial intelligence, data science and other fields (**Figure 2**). Among 1113 Universities, 235 belong to Central Government, 422 belong to State Government, 10 are Government Aided Deemed Universities, and 446 are Privately Managed (AICTE Model Curriculum for UG Degree Course in Computer Science and Engineering (Government of India, All India Council for Technical Education)).
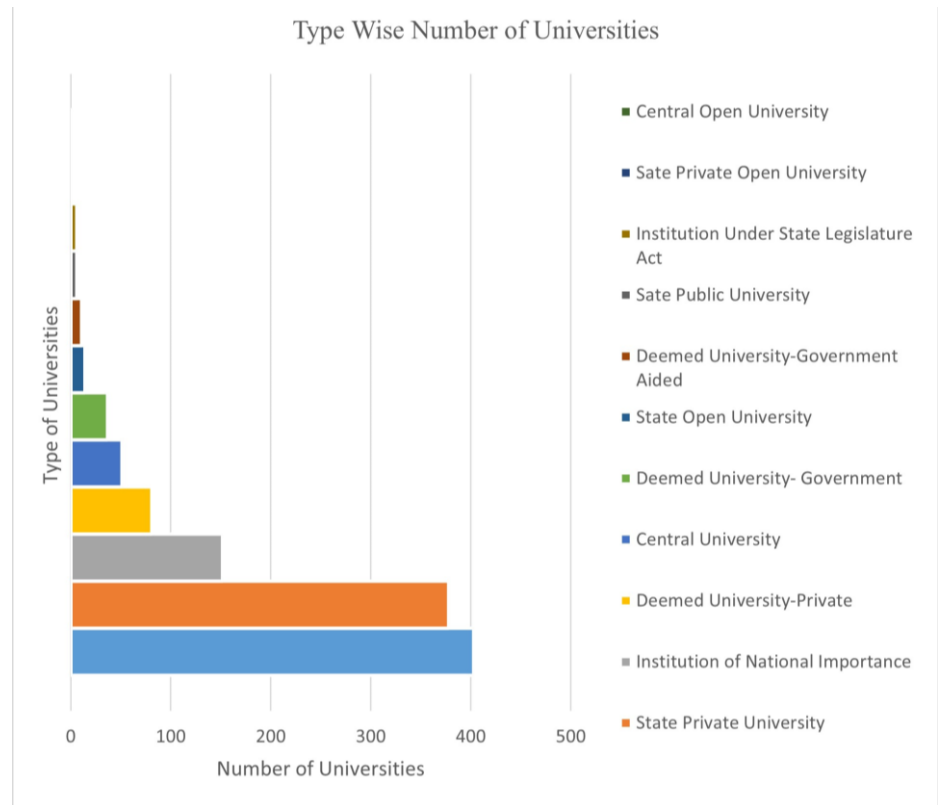
Figure 2. Type wise number of universities.

Table 2. Numerical statistics of higher education institutes (as per the 2020–2021 AISHE report by the Ministry of Education).

Number of Universities	:	1113	
Number of Colleges	:	43,796	
Number of Enrolments of Students	:	41,380,713	
Gross Enrolment Ratio	:	27.3%	(NEP, 2020)
Women's Enrolment Ratio	:	48.67%	
Number of Foreign Students	:	48,035	
Number of Research Institutions	:	216	
Number of Research Publications	:	216,807	(SJR—International Science Ranking, n.d.)
Average Citation per Paper	:	6.69	(SJR—International Science Ranking, n.d.)

These institutions are largely funded by tuition fees received from students and by private investments and offer courses in both traditional and emerging disciplines. Higher education institutions help to develop the country's research and innovation capabilities, which are essential for a modern economy. India has several top-ranked universities, including the Indian Institutes of Technology (IITs) and the Indian Institute of Science (IISc) (Barro and Lee, 2013). The Government of India is making significant investments in the higher education sector, aiming to further increase the GER. The National Education Policy 2020 has set ambitious goals for the Indian higher education system, including increasing access, quality, and equity.

3. Role of higher education in India's research, innovation, and development system

India's higher education sectors have undertaken several initiatives to promote collaboration between academia and industry and established several technology transfer bodies (**Table 3**). These programs have enabled both parties to benefit from the exchange of resources and expertise, and have helped foster innovation and knowledge sharing (Correspondent, n.d.). The government of India has several schemes to promote research and development, such as the Technology Innovation Hubs scheme, which provides funding for setting up innovative collaborations between academia and industry (**Table 4**). Atal Innovation Mission provides funding for setting up research and development centers in universities and colleges (Harish, 2021). The Ministry of Human Resource Development (MHRD) has established the Institute of International Education (IIE) as the apex body which works closely with the Indian Council for Cultural Relations (ICCR) and other government organizations to implement the government's policies and programs for internationalization. The Global Initiative of Academic Network ("International Initiatives and Trends in Quality Assurance for European Higher Education • ENQA") initiative facilitates faculty exchanges between India and other countries, and the India-US Knowledge Initiative on Agriculture (KIA), is aimed at strengthening research collaborations between the two countries. The government also offers scholarships for Indian students to study abroad and has set up the India-EU Higher Education Cooperation to promote student and faculty mobility between the two regions (Gupta, 2023).

Table 3. India's Technology transfer offices.

S. No	India's Technology transfer offices
1	Technology Information, Forecasting and Assessment Council (TIFAC), New Delhi
2	Technology and Investment Facilitation Cell (TIFAC-CORE), New Delhi
3	Technology Transfer and Commercialization Division, Department of Science and Technology, New Delhi
4	Technology Transfer Division, Department of Biotechnology, New Delhi
5	Technology Transfer Office, Department of Atomic Energy, Mumbai
6	Technology Transfer Office, Indian Space Research Organization (ISRO), Bengaluru
7	Technology Transfer Office, Council of Scientific and Industrial Research (CSIR), New Delhi
8	Technology Transfer Office, Defence Research and Development Organization (DRDO), New Delhi
9	Technology Transfer Office, Indian Council of Agricultural Research (ICAR), New Delhi
10	Technology Transfer Office, Indian Council of Medical Research (ICMR), New Delhi
11	Technology Transfer Office, All India Institute of Medical Sciences (AIIMS), New Delhi

India is also actively engaging with international higher education organizations and fora such as the Association of Commonwealth Universities (ACU) (Association of Commonwealth Universities, n.d.) and the Organisation for Economic Co-operation and Development (OECD). These organizations offer a platform for Indian universities to share best practices, exchange ideas, and collaborate on research and development projects. Importantly, Indian universities are increasingly participating in global rankings and benchmarking exercises, to assess their performance against

their peers in the global higher education landscape (Kamala and Kamalakar, 2020). This also helps the HEIs to identify areas for improvement, and work towards becoming globally competitive (Tassone et al., 2018).

Table 4. Major research funding bodies in India.

S. No	Major Research funding bodies in India
1	Department of Science and Technology (DST)
2	Indian Council of Medical Research (ICMR)
3	Indian Council of Social Science Research (ICSSR)
4	Department of Biotechnology (DBT)
5	Department of Atomic Energy (DAE)
6	Department of Space (DOS)
7	Council of Scientific and Industrial Research (CSIR)
8	National Science and Engineering Research Board (SERB)
9	Technology Information, Forecasting and Assessment Council (TIFAC)
10	Indian National Science Academy (INSA)
11	Science and Engineering Research Board (SERB)
12	Indian National Academy of Engineering (INAE)
13	Indian Academy of Sciences (IAS)
14	Indian National Academy of Sciences (INSA)
15	Department of Science and Technology—Technology Development Board (DST-TDB)
16	Department of Science and Technology—National Innovation Foundation (DST-NIF)
17	Department of Science and Technology—National Science and Technology Entrepreneurship Development Board (DST-NSTEDB)
18	Department of Science and Technology—National Science and Technology Management Information System (DST-NSTMIS)
19	Ministry of Earth Sciences (MoES)
20	Ministry of Human Resource Development (MHRD)
21	Department of Health Research (DHR)
22	Department of Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homoeopathy (AYUSH)
23	Ministry of New and Renewable Energy (MNRE)
24	Ministry of Micro, Small and Medium Enterprises (MSME)
25	Department of Agriculture, Cooperation and Farmers Welfare (DACFW)
26	Ministry of Rural Development (MORD)
27	Ministry of Environment, Forest, and Climate Change (MoEFCC)
28	Ministry of Housing and Urban Affairs (MoHUA)
29	Ministry of Water Resources, River Development and Ganga Rejuvenation (MoWRRDGR)
30	Department of Science and Technology—National Institute of Science Communication and Information Resources (DST-NISCAIR)

4. Higher education system governing bodies in India

The government of India has established various regulatory and governing bodies to support and monitor the progress of higher education institutions. The major governing bodies are:

- University Grants Commission (UGC): The UGC is the apex body of the higher education system in India, founded in 1956. UGC is responsible for the

coordination, determination, and maintenance of standards of higher education in India (Singh, 1984).

- All India Council for Technical Education (AICTE): The AICTE is the statutory body and a national-level council for technical education, under the Department of Higher Education, Ministry of Human Resource Development. AICTE is responsible for planning and coordinating the development of the technical education and management education system throughout India (Lux, 1964).

- National Council for Teacher Education (NCTE): The NCTE is a statutory body established in the year 1993 to establish educational standards, and guidelines, regulate, and monitor teacher education programmes in India (Cooney, 1994).

- National Assessment and Accreditation Council (NAAC): The NAAC is an autonomous body established by UGC for quality assurance of higher education in India. NAAC is responsible for assessing and accrediting higher educational institutions in India (Arun, 2020).

- National Board of Accreditation (NBA): The NBA is an autonomous body established by the All-India Council for Technical Education (AICTE) for quality assurance of technical education in India. NBA is responsible for accrediting technical educational institutions in India (Russell, 1952).

5. Breakthroughs in Indian higher education

- Introduction of Online Education: Online education is helping to bridge the gap between students, universities, and employers. It is also helping to make higher education more accessible and affordable.

- Expansion of Open and Distance Learning: Open and distance learning are becoming increasingly popular in India. This is allowing more students to access higher education, even if they cannot attend traditional classes.

- Expansion of Private Education: Private higher education institutions are playing an increasingly important role in India. This is helping to increase access to higher education and provide quality education at affordable cost.

- Increased Focus on Skill Development: Skill development programs help to prepare students for the job market, and industry-ready, and improve employability.

6. Women in higher education in India

The Indian literacy rate has grown to 77.7% (2017–2018 Statistical Commission survey) which was 12% at the end of British rule in 1947. The urban literacy rate is 87.7% whilst 73.5% in rural areas. A significant gender disparity exists in India's literacy which is 84.7% in men and 70.3% in women. Women still encounter certain challenges in terms of access to higher education, however, the number of female students enrolled in higher educational institutions has grown significantly over the past decade. According to the All-India Survey on Higher Education 2018–2019, the Gross Enrolment Ratio (GER) of women in higher education has more than doubled from 9.3% in 2009–2010 to 23.6% in 2018–2019. In addition, female enrolment in post-graduate studies and professional courses has increased significantly over the past

decade. For example, the GER for female post-graduate students increased from 10.4% in 2009–2010 to 24.3% in 2018–2019. Similarly, the GER for female students enrolled in professional courses increased from 6.7% in 2009–2010 to 15.8% in 2018–2019. The government of India has also taken several steps to encourage and promote women's access to higher education. For example, the Rashtriya Uchchatar Shiksha Abhiyan (RUSA) provides financial assistance to universities to improve the quality of higher education, with a special focus on promoting access for women (Lagemann, 2013). The government has also launched the Udaan scheme, which provides financial assistance to female students from socially and economically disadvantaged backgrounds to pursue higher education (Ghatge and Parasar, 2022). In addition, the government has implemented several initiatives to promote women's access to higher education in Science, Technology, Engineering, and Mathematics (STEM) subjects. These include the National Mission for Empowerment of Women (NMEW), the Higher Education Leadership Programme (HELP), and the National Mission for Women in Science and Technology (NMST). Overall, the government of India has taken several measures to promote women's access to higher education and to encourage their participation in STEM fields. While more needs to be done to ensure equal access to higher education for women, the progress made so far is encouraging (Nayak and Mahanta, 2008; Shetty and Hans, 2015).

7. Provision for differently abled people in higher education system in India

The Government of India has taken several steps to provide access to higher education for differently abled students (Hayes and Bulat, 2017).

- Barriers to Physical Access: The Government has enacted the Rights of Persons with Disabilities Act, 2016 which provides for physical access to educational institutions and other public places. The Act also provides for the installation of suitable ramps, lifts, and other facilities to make the premises accessible to physically challenged students.
- Academic Support: The Government provides training and support to physically challenged students to help them cope with the academic challenges. The Government also provides special education material to physically challenged students to enable them to pursue higher education with ease. The Government also provides special classes and training to physically challenged students to make them ready to face competitive examinations.
- Financial Assistance: There are six major scholarships for students with disabilities:
  i   Pre-matric (For Class IX & X).
  ii   Post-matric (For Class XI to Post-Graduate degree/diploma).
  iii   Top Class Education (For Graduated degree/Post-Graduate Degree/Diploma in notified institutes of excellence in education).
  iv   National Fellowship (For MPhil/PhD in Indian Universities).
  v   National Overseas Scholarship (For Master's Degree/Doctorate in universities abroad).
  vi   Free Coaching (For recruitment examination for Group A & B and entrance

examination for admission in technical and professional courses).

➢ Employment Opportunities: The Government provides employment opportunities to physically challenged students through the "National Handicapped Finance and Development Corporation." This provides them with employment opportunities in the government as well as in the private sector.

➢ Counselling Services: The Government also provides counselling and guidance services to physically challenged students to help them make the right educational decisions and career options. In addition to these, the Government also provides other facilities such as reservations in educational institutions and government jobs, and special concessions in examination fees to the physically challenged students.

8. National Education Policy (2020) of India

National Education Policy (NEP) 2020 is a comprehensive policy document that outlines India's vision for the future of education. NEP emphasizes the need for increased collaboration between higher education institutions, industry, and the government, and for the development of a more robust regulatory framework and employability (Bonnie et al., 2015). It is the first major reform of the education system of India since the National Policy on Education (NPE) was formulated in 1986.

NEP 2020 (Gulati et al., 2021) provides for the establishment of a Higher Education Commission of India (HECI), which will replace UGC and AICTE. The HECI will regulate and provide oversight to higher education institutions in India (Aithal and Aithal, 2020; Devi and Cheluvaraju, 2020). The policy focuses on five major themes:

- Access
- Equity
- Quality
- Affordability and
- Accountability

NEP covers all levels of education, from pre-primary to tertiary education. The policy seeks to make education more accessible by providing greater access to schools, colleges, and universities, and increasing the number of digital learning platforms. NEP makes education more equitable by providing greater access to disadvantaged groups, such as minorities, disadvantaged regions, and low-income households.
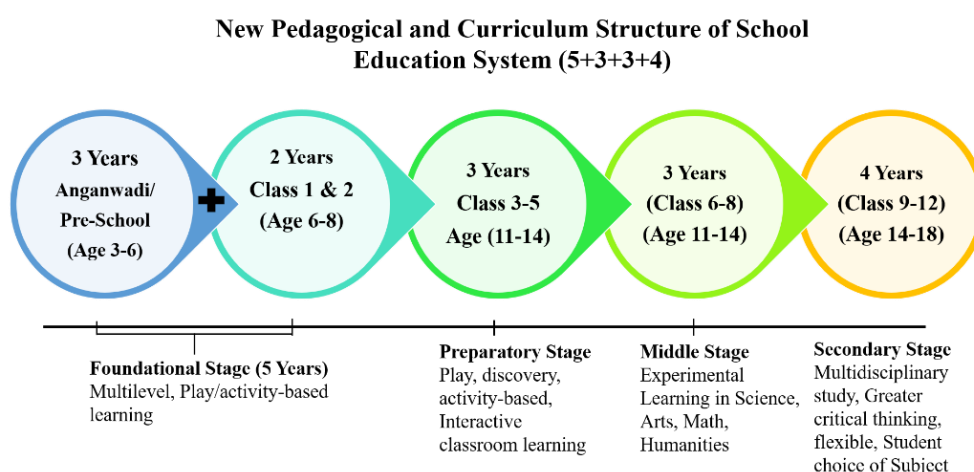
It also focuses on improving the quality of education by introducing a National Education Commission, reforming the curriculum introducing a National Testing Agency, and introducing a three-tier system of regulation—national, state, and local. It ensures affordability and proposes increased funding for education, greater use of technology, and alternative financing options (Das and Barman, 2023). Lastly, the NEP aims to improve accountability by introducing a National Accreditation Council (NAC) and setting up an independent grievance redressal mechanism. Overall, the NEP 2020 focuses on creating an education system that is equitable, inclusive, and driven by technology, and which prepares students to be successful in the global economy (Chandramana and Kurien, 2020).

9. Newer initiatives in NEP 2020

NEP has developed specialisation-based infrastructure and manpower training in different academic fraternities as mentioned below:

- Introduction of Foundational Literacy and Numeracy
- Introduction of 5 + 3 +3 + 4 Curriculum Framework (**Figure 3**).
- Expansion of Early Childhood Care and Education
- Introduction of Vocational Education from Class 6
- Board Exams from Class 5 and 8
- National Educational Technology Forum
- Teacher Education Policy
- National Testing Agency
- New National Curriculum Framework
- National Academic Depository
- National Academic Credit Bank
- National Research Foundation
- National Educational Technology Mission
- National Educational Assessment and Accreditation Council
- National Education Commission
- National Education Policy for School Education
- National Education Policy for Higher Education
- National Higher Education Regulatory Authority
- National Institutes of Technology
- National Institutes of Information Technology
- National Institutes of Design
- National Institutes of Management
- National Institutes of Pharmaceutical Education and Research
- National Institutes of Health and Medical Sciences
- National Institutes of Environmental Education
- National Institutes of Sports
- National Institutes of Art and Culture
- National Institutes of Media and Communication
- National Institutes of Tourism and Hospitality
- National Institutes of Open and Distance Education
- National Institutes of Special Education
- National Institutes of Social Sciences
- National Institutes of Law
- National Institutes of Science and Technology
- National Institutes of International Studies
- National Institutes of Agriculture Education
- National Institutes of Ayurveda and Yoga
- National Institutes of Performing Arts
- National Institutes of Music and Dance
- National Institutes of Culinary Arts
- National Institutes of Crafts and Design
- National Institutes of Visual Arts

- National Institutes of Film and Animation
- National Institutes of Robotics and Automation
- National Institutes of Aerospace Engineering
- National Institutes of Marine Engineering
- National Institutes of Artificial Intelligence
- National Institutes of Big Data
- National Institutes of Virtual Reality and Augmented Reality
- National Institutes of Nanotechnology
- National Institutes of Bioinformatics
- National Institutes of Space Technology
- National Institutes of Blockchain Technology
- National Institutes of Quantum Computing
- National Institutes of Renewable Energy Technology
- National Institutes of Automotive Technology
- National Institutes of Cyber Security
- National Institutes of Advanced Manufacturing Technology
- National Institutes of Geospatial Technology

New Pedagogical and Curriculum Structure of School Education System (5+3+3+4)

| 3 Years Anganwadi/ Pre-School (Age 3-6) | 2 Years Class 1 & 2 (Age 6-8) | 3 Years Class 3-5 Age (11-14) | 3 Years (Class 6-8) (Age 11-14) | 4 Years (Class 9-12) (Age 14-18) |

Foundational Stage (5 Years) Multilevel, Play/activity-based learning

Preparatory Stage Play, discovery, activity-based, Interactive classroom learning

Middle Stage Experimental Learning in Science, Arts, Math, Humanities

Secondary Stage Multidisciplinary study, Greater critical thinking, flexible, Student choice of Subject

Figure 3. New pedagogical and curriculum structure of school education system.

10. Budget for NEP 2020

The proposed financial outlay for the National Education Policy 2020 is ₹99,300 crore (Kazmi and Ali, 2021), and is expected to raise funds through various sources such as the Central Government, State Governments, corporations, philanthropic organizations, and the private sector. The Central Government will provide the major chunk of the funding, with the Ministry of Human Resource Development (MHRD) allocating ₹34,000 crore for NEP. The State Governments provide ₹45,000 crore, while the remaining ₹20,300 crore is from the private sector, philanthropic organizations, and corporations (Bunduchi et al., 2011).

11. NEP 2020 on Indian private higher education institutions

The National Education Policy 2020 of India does not make any specific provisions for private higher education institutions. The policy emphasizes the need

for increased collaboration between public and private institutions including industries in the areas of research, faculty training, and student mobility. Importantly, it introduces measures to ensure that students enrolled in private institutions receive quality education through adoption of best practices in terms of faculty, and infrastructure governance. Moreover, it calls for the setting up of a National Accreditation and Regulatory Authority for Higher Education (NARHE) to oversee the quality of education and trainings provided in the higher education institutions (Assessments, 2023). Additionally, it encourages the setting up of a National Credit Bank (NCB) to enable students to access education loans for students. This will help in improving access to quality education, especially for students from economically weaker sections of the society. Finally, the policy recommends a framework for government grants to be provided to private higher education institutions (Rangarajan et al., 2023).

Indeed, the collaboration between public, private institutions and industry has its own advantages like multi-directional exchange of ideas and technology, mutual handling of risks, and tasks with enhanced research/ product outcome. On the other hand, it has disadvantages like differences in research mission, geographical, and cultural differences, operational speed of the institution, and flow of funds.

12. Preparedness requirements of educational institutions in the implementation of NEP 2020 in India

- Schools should provide appropriate resources, such as books, digital devices, and other materials, to facilitate the successful delivery of the new curriculum. Also, technological infrastructure to support online learning and in-classroom teaching. This includes access to the internet, computers, laptops, tablets, and other digital devices.
- Schools should create an open platform for collaboration and communication between teachers, students, and parents to ensure that educational activities are conducted smoothly.
- Schools should develop a comprehensive plan for curriculum delivery, assessment, and evaluation to ensure that quality outcomes are achieved.
- Schools should provide a comprehensive professional development program for teachers to ensure that they can effectively and efficiently deliver the new curriculum.
- Schools should ensure that the new curriculum is implemented in a way that is inclusive, equitable, and culturally sensitive (Soni, 2023).

13. Higher educational institutions in the implementation of NEP 2020 in India—A change management approach

Higher educational institutions in India need to take several steps to implement NEP 2020 (Winters, 2011). These include:
- Establishing an institutional framework to guide the overall implementation of the NEP 2020. This should include a high-level NEP 2020 Implementation Committee and an NEP 2020 Cell at the institutional level to coordinate the

implementation of the policy.
- Developing a comprehensive NEP 2020 implementation plan and timeline to ensure the effective implementation of the policy.
- Increasing the focus on research and innovation.
- Revising curriculum and syllabus to meet the objectives of NEP 2020.
- Enhancing the use of technology and digital learning.
- Developing and implementing effective assessment and examination systems.
- Strengthening the existing and creating new mechanisms for quality assurance.

14. Expected outcome of New Education Policy 2020 India

The policy seeks to promote quality education and make it more affordable and available to all sections of society. The policy also proposes a focus on vocational and skill-based education and also to improve the quality of teachers and strengthen the research and innovation ecosystem in the country (Elhoseny et al., 2016). Additionally, the policy seeks to promote greater collaboration between research and industry (Muralidharan et al., 2022). NEP 2020 is thoughtfully designed to align with Sustainable Development Goal 4 (SDG-4) i.e., goal for quality education. NEP 2020 would ensure improvement in inclusivity and equitability, quality, affordability, and accountability which will help to transform to a vibrant society and global knowledge superpower. The central and state governments of India urge to allocate 6% gross domestic product (GDP) to the education system which will fuel economic productivity and competitiveness (Correspondent, n.d.; NEP 2020, n.d.). The overall expected outcome of the New Education Policy 2020 in India is to create an education system that is more equitable, accessible, and of high quality while promoting research and innovation in the country (Lazić et al., 2021).

15. Challenges in the implementation of NEP 2020

Like any other country in the world, COVID-19 posed a major impact on the healthcare and economy of India (Lee and Trimi, 2021). However, through timely and appropriate plans, India could do its best to protect its citizens and economy in a much better way, particularly the academic systems. Although COVID-19 has impacted the education sectors, the rapid development of cost-effective technology platforms and online classes helped to conduct classes and exams almost as per the academic calendar in India. Whilst overcoming the COVID-19 impact on the education system (Shah, 2022), the introduction of NEP 2020 imposed a second major challenge to the Indian education system (NEP 2020, n.d.). However, NEP 2020 is viewed as a planned management change that needs meticulous planning, execution, and monitoring. Herein we have discussed a few challenges that need attention while implementing NEP 2020 (National Education Policy-2020 and Higher Education: A Road towards Reform, n.d.; Rawat, 2024). These include:
- Strengthening Infrastructure: More resources towards strengthening the physical infrastructure such as classrooms, libraries, and laboratories in government schools, with new technological requirements need to be planned.
- Information and Computer Technology: Schools and colleges should be supported with basic technologies such as computers and internet access, which

are essential for modern education.

- Teaching Quality: The quality of teaching is an important factor in determining the quality of education. Hence, teachers need to be periodically trained and imparted with necessary skills for effective teaching.
- Admission: Socio-economic factors like poverty, lack of awareness, and social stigma affect the student's enrolment in schools and colleges. Various strategies and financial plans need to be implemented to improve access to education.
- Accountability: Teaching faculties and administrators should be proactively accountable for the quality of education.
- Geographical challenges: Improving transport, cost-effective hostels, and internet facilities will help in the effective implementation of NEP 2020 in low socio-ecological areas.

16. Limitations of India's New Education Policy 2020

- The national education policy requires timely allocation of funds to be quickly implemented and practiced. Resources for fund generation may be a crucial limiting factor.
- Rapid access to technologies for all sections of students will be a major task.
- Quality monitoring measures: The policy does not cover adequate quality monitoring measures to ensure effective implementation.

17. Conclusion

Despite India having great historical evidence of academic and research excellence, the country has encountered several academic challenges during several Mughal and British invasions. Nevertheless, India adopted various academic changes whilst retaining its core traditional and cultural richness (Das and Barman, 2023). Thus, change in managerial approaches in academics is not new to India and its educational institutions. The National Education Policy 2020 is a comprehensive plan that aims to bring about inclusive reforms at both the schools and higher education systems of India. It focuses on creating an equitable and inclusive education system that is more accessible and equitable to all strata of society. NEP seeks to ensure quality education through the introduction of multiple entry and exit points and flexible curricula, the promotion of research and innovation, the improvement of school infrastructure, and the establishment of a digital education platform. The policy also seeks to improve the employability of graduates by introducing vocational courses and apprenticeships. This policy will be a major step towards achieving India's vision of becoming a knowledge superpower. The change management approach needs to be adopted swiftly and impeccably by the education sectors to effectively implement the National Education Policy 2020.

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