

A Critical Analysis Of India's National Education Policy (2020): Insights Into Educational Transformation

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Abstract

National Education Policy 2020 is the first education policy of the 21st century that envisions worldwide access to good quality education. It proposes to revamp and revise all educational organization features, including its regulation and governance. It seeks to ensure goal 4 of the Sustainable Development Agenda (SDG4), which contemplates comprehensive justifiable quality education promoting lifelong learning opportunities for all. Incorporating liberal schooling into the existing education system is a remarkable move allowing for the need to endorse creativity and novelty. This kind of restructuring, both at the level of school and higher educational institutions, might have an intense influence on the quality of education, gross enrolment ratio, employability research, and internationalization in the future. Therefore, the policy aims to transform India's educational landscape from local to global leadership with equity, quality, inclusion, and access. In this article, the holistic, transformative insight of the National Education Policy has been elucidated with a spotlight on reforms in School Education and Higher Education and accentuated the implications of technology interventions for innovative teaching-learning.

Keywords: Education, equity, inclusive, innovative, quality, technology.

Introduction

A well-defined and revolutionary education policy is indispensable for a country at the school and college levels because education leads to economic and social progress (Aithal & Aithal, 2020a). From the Gurukul education system to the British education system, we recognize many alterations in the education system (Kalyani, 2020). Kothari Commission (1964–1966) was the first education policy in India declared in 1968. The procedure was deliberated with "radical reform" and endorsing equal prospects for rural and urban education sectors. We may believe in permitting national incorporation and brilliant cultural and economic development (Kaurav *et al.*, 2020). Planning and scheming wide-ranging educational programs are required for people to face catastrophes (Torani *et al.*, 2019). The National Education Policy-2020 envisages an India-centered system of education that subsidizes straight to renovating our nation sustainably into an excellent and energetic knowledge society by providing high-quality education to all (Aithal & Aithal, 2020b). The National Education Policy 2020 principles state, "The purpose of the education system is to progress good human beings accomplished of thought and action, retaining

compassion and empathy, courage and resilience, scientific temper and creative imagination, with sound ethical moorings and values. It targets forming engaged, industrious, and backing peoples for constructing an equitable, inclusive, and plural society as imagined by our constitution." (Pralhad, 2021). Formal education encompasses preschool, primary school, secondary school, and university. This condition has brought an upsurge in Emergency Remote Learning. It raises an unintended and astonishing swing from the traditional face-to-face classroom learning to one done distantly by pupils and educators in the well-being and protection of their homes. The pandemic affected around 1.5 billion students globally (Dsouza, 2022). The first Education Minister of India, Maulana Abul Kalam Azad, foresaw the uniform education system utilizing a robust central government control over the education system and policies. The Union Government established the University Education Commission (1948–1949), the Secondary Education Commission (1952–1953), Kothari Commission (1964–1966), and the University Grants Commission (November 1956); to formulate suggestions to streamline education systems of India (Kaurav *et al.*, 2020). The initial education policy was formed in 1968, later in 1986, with a minor amendment in 1992; since then, we

have succeeded in the same education pattern for the last 34 years (Kalyani, 2020). The emerging tools that might play a significant part in the teaching-learning process of the 21st century are – Augmented Reality and Simulation, Educational Technology and Virtual Reality based on Artificial Intelligence, Adaptive Learning, Robotics, Automation, Virtual Classroom, Internet of Things, App Based Learning and Gamification, 3D Printing, Virtual and Remote Laboratories, 5G Technologies, Competency-based Education, Data Analytics in Academic and Sports, Wearable Technologies, etc., (Tyagi et al., 2022).

Of late Government of India pronounced its new education policy centered on the recommendations of an expert committee headed by Dr. Kasturirangan, Former chairman of the Indian Space Research Organization (ISRO) (Aithal et al., 2020). The NEP 2020 aims to bring innovative and pioneering revolution to Indian Education System (Chakradev & Inamdar, 2022). The global education expansion strategy replicated in SDG4 Agenda for Sustainable Development aims to "guarantee inclusive and equitable excellence education and endorse lifelong erudition prospects for all" by 2030. National Education Policy 2020 is the first education policy of the 21st century purposing to treatise the evolving necessities of our nation (Yernagula, 2021). NEP pursues to streamline the full supervisory agenda (Chattopadhyay, 2022).

As the Indian economy is staggering back to routine, the renovation of normalcy in teaching-learning extended with the online mode developing as a feasible substitution approach (Chattopadhyay, 2021). In an epoch of plentiful data and expertise, institutions of higher education globally allied with necessities and drivers of transformation. The emergence of the fourth industrial revolution and artificial intelligence are restructuring our operational learning patterns. Further trials, like an escalation in education expenses, inadequate funds, and the growth of advanced approaches to education, are modifying the scenario of universal education. In India, student necessities are expanding with the advent and progress of technological interventions. Amicable and ingenious learning approaches are gaining a reputation. Worldwide advances, cumulative industrial requirements, and varying student requirements have transformed the Indian education scenario (Abrol & Jain, 2022).

A few main apprehensions concerning the enactment of MOOCs in India comprise the absence of digital infrastructure, the need for investment, and compliance with MOOCs by the learners (Sharma & Sharmiladevi, 2022). "Academic innovativeness" and "technological

growth & development" have a significant arbitration effect on the relationship between the Covid-19 pandemic and the adoption of e-learning strategy (Edem Adzovie & Jibril, 2022). The New Education Policy 2020 gives enormous impetus to the prospects of the interdependence of education and technology. It accentuates the role of ICT as an operative tool in enabling teacher education and heartens the deployment of technology podiums for virtual teacher training (Sharma, 2021). To make NEP an actuality at Indian higher education institutions (HEI), emphasis and outlay in information technology are obligatory. We need a tactical plan and road map (Prمود & Raman, 2021). The developing information and communication technology (ICT) drifts, familiarized in educational platforms like MOOCs, SWAYAM, etc., to safeguard education effortlessly reachable and inexpensive for a large section of society (Pal & Kumar, 2020).

This article embraces a theoretical argument on school education, reshuffles in higher education, technology intermediations for the state of the art teaching-learning, and MOOCs highlighting the significance of the national educational policy framework, emphasizing numerous units of the policy of NEP 2020 and equating it with predominant education policy. Advances made in NEP 2020 can be popularized through Group Discussion, brainstorming, and searching the other policies and acts on websites.

Spotlight on School Education

The 10+2 organization of the school course is to be substituted by a 5+3+3+4 curricular structure corresponding to ages 3-8, 8-11, 11-14, and 14-18 years, respectively (Kalyani, 2020). The focus of NEP is to achieve "universal foundational literacy and numeracy" among students in primary schools by 2025 (Kaurav *et al.*, 2020). It is visualized that before age 5, every child will move to a "Preparatory Class" or "Balavatika," which has an ECCE-competent teacher. The whole purpose of ECCE is to accomplish ideal outcomes in physical and motor progress, cognitive development, socio-emotional-ethical development, cultural/artistic growth, and the development of communication and early language, literacy, and numeracy (Sungjemmenla Aier, 2021). NEP also considers the RPwD Act, 2016, to include particularly abled children in the conventional education system. The policy suggests that these children can be integrated by designing an appropriate curriculum and suitable supportive technology (Tyagi et al., 2022). It endorses bilingual education and textbooks for learning multiple languages at the

middle and secondary levels. It proposes a multidisciplinary method and reduces content by aiming for core learning skills. New-age subjects such as coding and computational thinking are presented at a middle school level (Saxena, 2020). NCERT will advance a National Curricular and Pedagogical Framework for Early Childhood Care and Education (NCPFECCE) to support children up to eight. NEP 2020 advocates establishing a National Mission on Foundational Literacy and Numeracy by the Education Ministry. The Integrated Child development services (ICDS) Scheme is one of the flagship programs of the Indian government that focuses on early childhood care and growth (Achumi & Joseph, 2022). NEP-2020 targets to launch new virtual labs and train the schools digitally. It also proposes to set up a National Education Technology Forum, a stage for discussing concepts on the use of technology to stimulate learning (Anand, 2021).

Reforms in Higher Education

Indian higher education system is the third largest in the world regarding students. The nation lodges a significant position in the global educational scenario. HEIs in India include Universities, Colleges, institutes of national importance, polytechnics, etc., proposing several programs of studies leading to graduation, post-graduation, and doctoral degrees. Universities are of diverse sorts, such as central universities, state universities, deemed universities, and private universities. Moreover, regulatory bodies such as the National Council for Teacher Education (NCTE), All India Council for Technical Education (AICTE), research councils like the Indian Council for Medical Research (ICMR), Indian Council for Agricultural Research (ICAR), and the National Board of Accreditation (NBA) and accrediting agencies like National Assessment and Accreditation Council (NAAC) are also functioning to cater to the needs of teaching and research innovation (Fatima, 2021).

Professional Education will be a fundamental part of the higher education system. Technical universities, health science universities, legal and agricultural universities, or institutions in these or other fields will be transformed into multidisciplinary institutions (Saxena, 2020). The provision of dual-degree in NEP 2020 says that "the four-year integrated B. Ed. program of pre-service teacher training for several disciplines are going to be presented at the university level as a dual-degree undergraduate program of study, and will consequently embrace each disciplinary in addition as teacher grounding courses may be a

captivating side and will be notified not to result in drop-outs from the education sector within the context of the inflated rate of the state in India that results in inadequacy of dedicated specialists within the education field (NEP, 2020; Page 42, 15.5). The New Education Policy 2020 (NEP, 2020) heartens foreign education institutions to institute an incidence in India and endorses the setting up of Indian institutions overseas (Varghese & Mathews, 2021).

A comprehensive understanding of the jolts and bolts faced by the education sector under lockdown puts forward critical considerations. The World Bank (2020) report on higher education in the South Asian Region points out insufficient guidance for teachers on how to systematically compact with teaching-learning during the crisis, including deficiency of exercise in the usage of digital pedagogy, student assessments, and initiatives to backing students distantly constrain teacher reactions occurred during the pandemic. There was a significant modification in assessment methods during the pandemic. UGC recommended using open-book exams and presentation-based assessments (Rao and Brown, 2022). Explicit to the Indian perspective, the swiftness with which UGC retorted is noteworthy. It promptly hurled numerous initiatives for the sustenance of e-learning.

Several reforms have been proposed in higher education, including a multi-discretionary system offering choices to students from various subjects from different disciplines, integrated, i.e., undergraduate, postgraduate, and research level, and over-handling of the governance structure in higher education. It is envisioned in the NEP document that there will be one regulatory body for the entire sector in the Higher Education Commission of India (Subba Rao, 2022). Online faculty training is centered on a nano-MOOCs format to advance digital teaching competencies in professors of universities and seems to be a popular substitute for university faculty training. Contributors under study upgraded their level of digital aptitude. Therefore, effectual customizable training can be accomplished in a limited period and is accustomed to the necessities and features of the professors (Basantes-Andrade et al., 2022).

This policy accentuates the humanities and liberal arts, thereby enabling careful entry of quality overseas universities, areas to escalate public investment in education to 6% of the GDP, and promise to provide higher education freely to about 50% of the students with scholarships and fee waivers. It targets to surge the gross enrolment ratio in higher education to 50% by 2035 (Subba Rao, 2022). This aspect is going to be one of the

critical development in educational expansion. Diagonal proficiencies are central aptitudes to be nurtured in higher education: cooperation, critical thinking, teamwork, communication, creativeness, and novelty. These proficiencies are linked with precise practical information and job-oriented expertise to be pragmatic in a specific field (Miranda et al., 2021).

Obligatory prescribed teacher education for higher education faculty would allow the (HEIs) and Universities to implement the objectives of NEP 2020, achieve tall endorsement by predominant accreditation bodies or regulatory establishments, and convey Out Come Based and Skill based education (Chakradev et al., 2022). Technological obstacles, monetary blocks, and lack of sentience impede issues in approving MOOCs by teaching faculty of higher educational institutions in India (Bhaskar et al., 2021).

Technology interventions for Innovative Teaching learning

National Mission on Education via Information and Communication Technology (NMEICT) under the Ministry of education was introduced in 2009: to enable the chances for all the teachers and experts in the country to advance their combined wisdom for the attention of every Indian learner and, thereby, plummeting the digital divide. Current ingenuities of technology-enabled Learning (TEL) in Higher education include NPTEL, SWAYM PRABHA, and SWAYAM (Yernagula, 2021). ICT enriched learning atmosphere enables dynamic, collective, resourceful, integrative, and appraising digital learning as an improvement over the traditional methods. The recent ICT developments have endorsed teachers to be creative, flexible, and enthusiastic about renovating their revelation of teaching and learning (Sharma, 2021).

Learning Management System (LMS) is selected as a crucial portrayal. It is a software presentation that systematizes preparation measures' supervision, following, and exposure. An LMS that can augment user teaching and learning technology is vital to its efficacious application in higher education. Correspondingly, LMS advocates multiple pooled gears for distributing and conducting virtual instructions (Dash et al., 2021). Furthermore, mostly used LMSs are CANVAS, Blackboard, Google Classroom, Moodle, Sakai, Edmodo, etc.; additional pertinent applications of tools and platforms happen in mixed reality laboratories, virtual and experiential environments, web-based learning, M-learning, intelligent tutoring systems, robot teaching assistants,

Hologram-Teacher formats and educational robotics (Miranda et al., 2021).

The policy demands enhanced investment in digital structure, virtual teaching tools and platforms expansion, digital storehouses, and the establishment of virtual labs. This policy also aspires to develop quality virtual content creators who can design and implement virtual assessments. Furthermore, it underscores the significance of instituting content, technology, and pedagogy standards for online teaching-learning. ICT incorporation for pre-service teacher training programs plays a vital role in preparing future teachers for the classroom, who are self-assured and capable of managing the transformation and persuading it for a better quality of teaching (NEP, 2020). Several scientific applications that sustain pedagogical procedures impact current techniques driven by the IoT, such as Artificial Intelligence and Machine Learning, High Data Processing applying Data Science, Virtual Image Processing, and Data Analytics and Cloud Computing (Miranda et al., 2021).

Massive Open Online Courses (MOOCs)

This novel wonder has been conceivable due to the outline and integration of technology into education to accomplish various learning objectives. Over the last 10 to 15 years, MOOCs have evolved at a remarkable pace and are presently being offered by multiple commercial platforms such as Udacity, Edx, and Coursera and are being provided by expert faculty members from several leading educational institutions and universities (Musib, 2020).

In addition to distance education, e-Learning is anticipated to advance classroom teaching by employing educational tools and digital content utilizing various blended approaches; Mobile devices and SNS paved the way for new content distribution and knowledge sharing in learner groups. MOOCs expanded the opportunities for quality education on a global level (Yamada, 2015).

Students have always had access to "Massive Open Online Course" platforms for learning, but its potential has recently come to light. Moreover, recently, the recommendations of the New Education Policy (NEP) Committee members highlighted the critical role of the "Online Learning" mode in achieving the targets of the Sustainable Development Goal (Sharma & Sharmiladevi, 2022). The salient characteristics of MOOCs are Massiveness, Openness, Online Services, and Access to Education (Yamada, 2015). MOOCs aid in bringing about the enduring

impact that enhances the scope for novelty in higher education. More precisely, the outcomes exposed the benefits of MOOCs in diversified fields, such as the development of professional competence, lifelong learning, validation of knowledge, and degree recognition (Ossiannilsson et al., 2016).

The four most widely used and developed MOOC Platforms are NPTEL (2003), mooKIT (2014), IIT Bombay X (2016), and SWAYAM (2016) (Sharma & Sharmiladevi, 2022). Modern educational interventions like MOOCs, as provided under SWAYAM in India, have initiated a positive and productive social transformation in the country by giving specific courses meant to promote lifelong learning, enhance life skills, and provide livelihood opportunities to thousands of learners (Bordolo et al., 2021). Due to their inherent flexibility, MOOCs have the potential to mitigate geographic and time constraints. Teachers benefit from the flexibility of schedules by attending sessions at their own pace, without additional costs and travel inconveniences (Amado et al., 2022). Due to the potential to improve education quality and reach, Online education is supported and aided by the government through the Digital India initiative; the SWAYAM (Study Webs of Active –Learning for Young Aspiring Minds) program has been launched by the govt. Of India. Courses offered by SWAYAM are to provide quality teaching-learning resources to all, and courses offered are accessible to all. SWAYAM offers nearly 2000 online courses. Approximately 150 million students across the globe are enrolled in different classes (Khan & Iqbal, 2021).

MOOCs offer an affordable, flexible way to acquire new skills and career advancement and deliver quality educational experiences. MOOCs have the potential to help individuals enjoy learning and gain knowledge in various ways. In the varying learning landscapes and the future of learning, MOOCs can perform multiple roles, such as stand-alone courses in informal and non-formal learning and modules integrated into formal education (Ossiannilsson, 2021). Presently, existing indications suggest that postgraduate learners have the enthusiasm and abilities to benefit most from MOOCs. It supports teaching enhancement and improvement as HEIs permit more effective use of digital learning (Speight, 2018).

Conclusion

Implementation of NEP 2020 has been a top priority for the government of India that contributes directly to transforming the education

system in the country. This policy seeks to reform the older Macaulay-based education systems as well as suggest add-ons to the post-independence commissions on education in a comprehensive manner. The primary technology transfer can be effectively advanced by improving the educational infrastructure in the country. This holistic visionary policy document can be effectively implemented when the country ensures proper and adequate fund allocation for the education sector. This policy aids in building strong foundational skills and quality of learning across all levels of education. Moreover, it allows for redefining the ways of assessment and initiating systemic revolutionary modifications in the educational scenario of the country. Therefore, this new educational policy is expected to considerably transform the Indian education system by focusing on equity, accessibility, quality, and affordability.

Conflict of Interest:

The authors declare that there is no conflict of interest among them authors.

Ethics approval and consent to participate:

This article does not contain any studies with human participants or animals performed by any authors.

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