

UNSDG 4 and its Implication on Indian Education System

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Abstract

NEP 2020 envisions, in line with UNSDG 4, equitable quality education for all and help with lifelong learning opportunities. Both aim to achieve a common goal which is sustainable growth of this rapidly evolving contemporary society by empowering people with necessary knowledge and skills. India, the largest democracy, in particular, needs to play a vital role in achieving the UNSDG 4 through examples. NEP 2020 is a step towards achieving the UNSDG 4.

This article focuses on how India's educational system has evolved throughout the time. It started with flourishing education system during Medieval period (like Nalanda, Takshashila, Ujjain, and Vikramshila Universities); creation of Madrasas and Makhtabs under Mughals; western education system under British Raj, post-independence education system (evolution of policies like Education Commission in 1964-66, creation of NEP in 1968, 1986, 1992, etc. with different aims like compulsory education up to 14 years of age), and the present scenario of STEM/STEAM under NEP 2020. A shift from 10+2 structure to 5+3+3+4 structure giving importance to early childhood care and lifelong learning are two major changes, among many others, of NEP 2020.

Because of lack of resources, poverty, and gender inequality, there are many drop outs in India despite high-quality education. COVID-19 also had its impact on Indian education, revealing difficulties with online learning because of infrastructure and technology constraints. These obstacles are being tackled by constantly updating policies. Addressing these topics, the paper concludes with some suggestions.

Keywords: UNSDG 4, NEP, BRICS, Policies, Infrastructure, COVID-19, Online Education, STEAM

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Introduction

Education ought to do more than merely assist people in becoming financially successful. The quote "Tamaso Ma Jyotirgamaya" (from darkness to light) symbolizes its actual goal of empowering individuals and molding people's personalities by imparting skills, values, and morals. Real education ensures a balanced and purposeful existence by molding the full person—body, mind, and soul (Yadav, 2018).

The traditional Indian educational system placed a strong emphasis on holistic education, which encompassed discipline, moral principles, and a close relationship with nature and spirituality. Sanskrit was the main language of instruction in the early schools. In gurukuls, students lived with their teachers while learning from books as well as real-world experiences. Formal and informal education took place in households, temples, and special schools such as pathshalas. Lessons covered faith, self-reliance, honesty, and customs (Mishra and Aithal, 2023).

Takshashila, the earliest university in history, established in 700 B.C. with more than 60 courses offered was attended by about 10,000 students from all over the world. At first, knowledge was transmitted orally by deep understanding (nidhyasana), reflection (manana), memorization (smriti), and hearing (shruti). Women were essential to education as well. Education was inclusive in those days, as evidenced by the high regard and active participation in intellectual discussions of female scholars and poets such as Lopamudra, Ghosha, Gargi, and Maitreyi (Pandya, 2014).

Islamic education was greatly advanced by Muslim rulers in India. They were dedicated to constructing madrasahs, which served as the main educational establishments in the Middle Ages. Madrasahs helped protect Islamic culture from Western secular influences and offered education to everyone, regardless of background. Muslim Sufis, traders, and saints who came to India for religious instruction and commerce were the ones who initially brought the idea of madrasahs. Instruction started at Maktabas (primary schools) and Khanqas (spiritual institutions). Students would continue their education at Madrasahs, where they were taught a variety of Islamic subjects, after finishing their studies at Maktabas. Madrasahs, were frequently constructed adjacent to mosques that functioned as both places of worship and educational facilities, developed throughout time as centers of higher Islamic study (Al Hasani, 2022).

People from various socioeconomic backgrounds had access to education. Scholars were valued, and a strong dedication to education persisted from earlier eras. Hindu educational

establishments continued to offer courses in literature, mathematics, Sanskrit, and other subjects. Varanasi, Mithila, and Mathura were important Hindu educational hubs. In order to promote universal education, maktabas, madrasahs, and pathshalas were founded all over the nation at the same time. In addition to maintaining and honoring Hindu educational traditions, the Mughal emperors were instrumental in advancing and extending education, particularly among Muslims (Momen & Hossain, 2022).

India's educational system now combines modern teaching techniques with its historical roots. In line with Sustainable Development Goal 4, the New Education Policy (NEP) 2020 seeks to provide multidisciplinary, lifelong learning, support regional languages, and revitalize Indian heritage. This goal is supported by initiatives like Sarva Shiksha Abhiyan, which guarantee high-quality education for everyone (Patil, 2022).

The emphasis of the modern method is on practical applications, interdisciplinary learning, and access to up-to-date information. Building on this, the National Education Policy (NEP) 2020 encourages inclusive, high-quality education while taking cues from spiritual practices like yoga and ayurveda as well as traditional values like curiosity and teamwork. Additionally, the NEP 2020 promotes high-quality, interdisciplinary education from early childhood through postsecondary education (Mishra and Aithal, 2023).

Building more resilient educational systems is thought to be possible with online and blended learning (OBHE), especially in the wake of the COVID-19 pandemic. With backing from international institutions such as the United Nations, OBHE seeks to offer flexible, reasonably priced, and easily accessible education. Notwithstanding its potential, OBHE encounters significant obstacles in conflict areas where political unpredictability, inclement weather, and frequent internet outages impede its deployment. This is especially true in areas like Jammu & Kashmir (J&K) and Ladakh, where online learning has been negatively impacted by the challenging terrain and government-imposed internet restrictions (Sareen and Mandal, 2024).

India's education system is changing significantly and expanding swiftly. To enhance school enrollment and attendance, the government has expanded funds and started new programs. The regulatory structure in higher education is being reformed. At the same time, demand for education is increasing at all levels as families grow wealthier and more aspirational. As a result, private education now plays a larger role and the public sector's dominance has decreased (Hill & Chalaux, 2011).

Increasing educational engagement and raising learning standards are currently India's two main issues. Continuous reforms must be maintained and expanded if they are to be successful, particularly in light of the economy's rapid change and the length of time it takes for policies to take effect (Hill & Chalaux, 2011).

In order to achieve high-quality education and support all other SDGs, education for sustainable development, or ESD, is thought to be crucial. According to UNESCO research, although many nations incorporate environmental education into school curricula, this is insufficient on its own. A more comprehensive and inclusive strategy that changes the curriculum, teaching methods, and learning environment as a whole is necessary for true transformation. According to recent studies, as part of the global 2030 goal, 50 countries are actively getting ready to deploy stronger ESD plans. Universities suffer large financial losses as a result of the intricate and multifaceted nature of white-collar crime and corruption. As early as 2012, it was projected that fraud in international higher education was worth billions of dollars. Academic dishonesty, cheating, embezzlement, sexual harassment, and unfair student selection procedures are only a few examples of corrupt behaviors in higher education, along with high-level financial malfeasance by senior administrators. Academic fraud is also exacerbated by problems like online assignment purchases and dishonest student recruitment (Ngcamu, 2024).

The study concludes by demonstrating that enhancing school infrastructure is a human rights concern as well as a building issue. Students learn better and have better prospects when they attend schools with better settings (Lombo & Subban, 2024).

Literature Review

Vedic Education (1500 B.C. – 500 B.C.)

India's educational system was still very primitive in the Middle Ages. There were no formal primary schools as we know them now. Rather, education was provided in temples, frequently with the help of donations. Teaching was regarded as a religious obligation rather than a career, and teachers not only fed their students but also taught them (Roy, 2018).

Self-realization, moral character, personal growth, social responsibility, and cultural preservation were the primary objectives of education. Crucially, education was regarded as a lifetime process and was freely available to everyone who was eager to learn. Teaching was regarded as a religious responsibility rather than a career (Sethi, 2015).

The teachings were based on the four Vedas—the Rigveda, Samveda, Yajurveda, and Atharvaveda—which are considered to represent divine wisdom. Students began attending school during the Brahmacharya phase of life, which is centred on learning (Goyal & Aggarwal, 2015).

During the Vedic era, two primary traditions developed: Brahminical education, which concentrated on the oral transmission of sacred texts, and Buddhist education, which encompassed both religious and secular learning. As the Brahmins grew in power, education became more focused on priestly responsibilities, rites, and religious goals. Access to formal education was restricted to Brahmins, Kshatriyas, and Vaishyas due to the caste system, whilst Shudras acquired practical skills through family customs (Choudhary, 2008).

More specialized education was developed during Sutra period (600-200 BCE), with advanced levels being attained in disciplines like geometry, algebra, astronomy, and medicine. Character development, ethics, and discipline—achieved by yoga, karma (deeds), and vedanta (spiritual knowledge)—remained the fundamental goals (Mishra and Aithal, 2023).

Few important features of education system (Yadav, 2018):

1. The system of Gurukul - In a gurukul, they received a comprehensive education, students resided with their teacher (guru). Religion, Sanskrit, scriptures, medicine, philosophy, literature, astrology, warfare, and statecraft were among the many things they were taught. In contrast to rote memorizing, learning was closely tied to nature and practical applications (Yadav, 2018).
2. The Three-Step Process of Learning - Three fundamental ideas served as the foundation for education:
 - Sravana (Listening): Taking in information straight from the instructor (Yadav, 2018).
 - Manana (Reflection): Giving the lessons careful thought in order to comprehend them completely (Yadav, 2018).
 - Applying knowledge in real life and upholding the lessons acquired is known as nidhidhyasana (realization) (Yadav, 2018).
3. Individualized Student Attention - Gurus served as mentors, offering advice to each pupil according to their unique ability for learning. Every kid received individualized attention due to the low student-teacher ratio (Yadav, 2018).

4. Accessible and Free Education - Everyone had free access to education, regardless of their financial situation. As part of their education, students helped out with everyday tasks. Princes and other wealthy students would present Guru Dakshina as a thank you gift (Yadav, 2018).
5. Moral principles and discipline - In the ashram, students from diverse socioeconomic backgrounds led a disciplined life. Morality and religious beliefs served as the foundation for rules and regulations. Discipline infractions were taken very seriously (Yadav, 2018).
6. Development of Character and Personality - The goal of education was to increase moral fortitude, self-worth, and confidence. It placed a strong emphasis on serving society, encouraging civic engagement, and conserving and enhancing culture (Yadav, 2018).
7. A Calm Educational Setting - Classes were conducted in calm settings, such as woodlands or riverbanks, to provide a peaceful and distraction-free learning environment (Yadav, 2018).

One of the most prominent universities in South Asia was Nalanda University, which was constructed in the fourth century AD. It offered a broad range of courses, including mathematics, astronomy, ethics, law, medicine, architecture, and theology, and it drew students from all over the world. Approximately 10,000 students were housed at Nalanda at its height (Pandya, 2014).

Banaras, Nadia, Mithila, and Mathura were some other important Hindu educational hubs, each with a focus on different fields like philosophy, logic, and the Vedas. There were no official tests or degrees in the educational system. Students progressed according to the instructor's assessment, and being able to study under a famous academic or at a reputable university was highly prized (Roy, 2018).

Women also had some access to education; early examples of women's empowerment can be found in the works of female authors and the mother of the Buddha, Maya. But the educational landscape remained dominated by men. Unfortunately, social, cultural, and political issues caused this rich educational legacy to start to wane as India entered the medieval age (Pandya, 2014).

All things considered, the Vedic educational system was well-organized and tailored to the standards and ideals of the community at the time. It promoted moral growth, strong teacher-student relationships, and overall development (Sethi, 2015).

Buddhist Education (500 B.C. – 1200 A.D.)

When contrasted with the Brahminical system, Buddhist education was more inclusive and transparent. With very few exceptions, such as slaves or people who were unsuited to learn, it accepted pupils from a wide range of backgrounds. Discipline, sermons, and philosophy were the three primary focuses of Buddhist education, which was based on the teachings of the Buddha. Students and monks lived and studied together in monasteries known as viharas, where education was conducted. Logic, medicine, music, astrology, mathematics, the arts, and even Vedic knowledge were among the many subjects included in the curriculum, which extended beyond religion. Students from all around Asia were drawn to other renowned universities like Nalanda, Vikramshila, and Vallabhi, which also developed into hubs of higher education. These educational establishments, which were frequently democratic in nature, provided a blend of practical and spiritual instruction (Choudhary, 2008).

Gautama Buddha's teachings, which emphasized the road to wisdom and enlightenment over the soul, served as the model for this system. Between 600 B.C. and 500 A.D., it signaled the start of more professional and comprehensive education in India. Teachers, who were monks, were highly esteemed and expected to have ten years of experience (Goyal & Aggarwal, 2015).

People became dissatisfied with the Vedic system's rigid rituals and social inequalities throughout time, particularly because of the upper caste's (Brahmins') domination. Gautam Buddha responded by advocating for social equality, non-violence, and peace. A significant change resulted from this: education was made available to everyone, not just the wealthy (Sethi, 2015).

The Buddhist era saw an increase in the organization and accessibility of education. Students increasingly attended monasteries and sanghas for their education rather than gurukuls or ashrams. People from all walks of life were accepted at these establishments. Although religion and Dharma (righteousness) were the primary subjects of study, the curriculum also covered astronomy, philosophy, literature, and even professions like surgery and medicine (Sethi, 2015).

The official training of teachers was one of the most significant advancements. Brahmins were no longer the only people who could teach; anyone with the right training might become a teacher. A systematic method for training teachers appeared for the first time. Proficient monks would spot bright pupils, retain them for further education, and prepare them to instruct younger pupils. Like the so-called "monitorial system," this method established the groundwork for teacher education (Sethi, 2015).

All things considered, the Buddhist age saw teaching as a noble and esteemed profession and was instrumental in advancing equality, inclusivity, and organization in education (Sethi, 2015).

Education under Mughals (1200 A.D. – 1700 A.D.)

Madrasahs, or Islamic educational institutions, were brought to the Indian subcontinent by Muslim kings, traders, and intellectuals prior to the Mughal Empire. These establishments offered instruction in both science and religion. The custom dates back to before the sixth century, when Muslim monarchs first established themselves in India (Al Hasani, 2022).

After conquering Bihar and Bengal in 1193, Ikhtiaruddin Mohammad Bin Bakhtiar Khilji built numerous new madrasahs. Beginning with Qutub ud-din Aibak in 1206, the Delhi Sultanate made contributions to Islamic education as well. Madrasahs were constructed throughout Delhi and abroad by his successors. Muslim kings established thousands of madrasahs throughout India by the fourteenth century, providing instruction in both religious and scientific subjects (Al Hasani, 2022).

Babur established the Mughal Empire in 1526, which significantly contributed to the growth of madrasah education. The Mughal emperors constructed many madrasahs throughout India because they believed that education should be the state's responsibility (Al Hasani, 2022).

Babur established new institutions and promoted Maktabas and Madrasahs to sustain education despite his brief rule. Baburnama, his well-known autobiography, is regarded as a literary masterpiece. His contributions to education were carried forward by his next generations (Momen & Hossain, 2022).

Despite its limitations, women's education was not completely disregarded. Some Mughal princesses learnt to read, write, and even create poetry, and girls from wealthier families received at-home tutoring. Women in South India had more access to Sanskrit literature, and some went on to become renowned poets or instructors. Middle-class women were typically

literate in at least one language, such as Hindi, Persian, or a regional tongue, although lower-class women were frequently illiterate (Roy, 2018).

While many of the previous, traditional Indian educational systems persisted, new establishments such as madrasas emerged during this time and developed into significant hubs of learning with an Islamic influence. Thus, there was a combination of continuity and change in education as new Islamic institutions and ancient Hindu-Buddhist systems coexisted (Choudhary, 2008).

Madrasahs, which mainly taught Islamic theology, had developed into significant institutions of higher learning by the eleventh century. They taught secular subjects like language, logic, literature, and physics, but their primary goal was religious teaching. The majority of madrasahs were state-sponsored and affiliated with mosques. All Muslim pupils were required to speak Arabic, but Persian was the main language of instruction (Choudhary, 2008).

Grammar, rhetoric, logic, theology, jurisprudence, and occasionally mathematics, astronomy, and medicine were all taught in Muslim schools because of Hindu influence. Similar courses were taught in Hindu colleges, with a particular emphasis on mathematics and philosophy. Even the elite mostly ignored geography (Roy, 2018).

The traditional Indian educational system started to show significant Islamic influence during the Mughal era. Islamic education became a significant component of the Indian system during the medieval era as Islamic dynasties expanded over the subcontinent. Sanskrit was replaced as the primary language of instruction by languages like Arabic, Persian (Farsi), and Urdu (Pandya, 2014).

As Muslim control grew in India during this period, the conventional Hindu educational system saw substantial modifications, particularly as a result of the loss of government funding. When compared to previous Hindu eras, overall educational standards decreased. Emperor Akbar did, however, make significant attempts to maintain and improve education (Goyal & Aggarwal, 2015).

Parts of India came under Islamic dominion in the 12th century AD as a result of numerous Muslim conquests. The current educational system was disrupted by these political shifts, which resulted in the creation of new educational frameworks. Institutions such as madrasas (for higher education) and maktabas (for primary education) helped to formalize Islamic education during this time (Sethi, 2015).

In maktabas, young children taught the fundamentals of reading, writing, and math while also memorizing passages from the Quran. They might then proceed to madrasas, which functioned as hubs for higher education. Arabic literature, philosophy, grammar, astronomy, and medicine were among the secular disciplines taught in these schools, along with religious subjects like the Quran, Islamic law, and history. These organizations were frequently financed by wealthy people (Sethi, 2015).

Both the Muslim and traditional Hindu educational systems persisted during this period. They coexisted despite having various languages, religions, and cultural customs. Education in various parts of the nation saw substantial modifications as a result of this cultural blending (Sethi, 2015).

Education under Britishers

Education in India had a strong religious and literary foundation during both Muslim and Hindu authority. Hindus studied medicine, astronomy, music, and warfare in addition to books like the Vedas and Upanishads. Muslims used the writings of Euclid and Ptolemy, among others, to study logic, philosophy, and the natural sciences in addition to the Quran (Choudhary, 2008).

During British colonial control, India's current university system was established. The founding of Hindu College in Calcutta in 1817 marked a reversal from the British East India Company's initial lack of active support for Western education. The British started advocating for English and European-style schooling around the 1820s and 1830s. Two groups—one advocating for secular education and the other, primarily missionaries, who used English to teach religion—were responsible for this (Choudhary, 2008).

Few education changes brought by Britishers in the system are as follows:

1. 1813: A Watershed in Indian Education - Prior to 1813, the majority of education in India was centered on religion and the society. Both Muslims and Hindus maintained distinct educational establishments that were centered on religious instruction. There were educational initiatives, but they were disorganized and unstructured. The founding of the Asiatic Society in 1785, the Calcutta Madarsa in 1781, and the Sanskrit School in Banaras in 1792 were some noteworthy early developments. These initiatives signaled the start of a gradual transition to more regimented teaching methods (Goyal & Aggarwal, 2015).

2. The 1813 Charter Act - With the introduction of official governmental engagement, this act signaled a significant change in Indian education. For the first time, a special fund of ₹1,00,000 was set aside for educational purposes, and the East India Company was given responsibility for Indian education. As a result, India's English-language educational system was established. In different regions of the nation, Christian missionaries established distinct schools for boys and girls. English was chosen as the teaching language in order to further Western literature and science and to make it possible for Indians to obtain government employment. Additionally, the system grew more inclusive, providing educational chances to individuals from all religious and caste backgrounds. Additionally, initiatives to promote higher education institutions and train instructors were undertaken (Goyal & Aggarwal, 2015).
3. The Minute of Macaulay (1835) - Lord Macaulay, who had just arrived in India the year before, published a well-known minute in 1835 stressing the value of teaching all Indians in English. He believed that English was the most efficient means of promoting Western education. English became widely used as a result of this approach, and in 1837 it was designated as the official language of the courts (Goyal & Aggarwal, 2015).
4. The Despatch of Wood (1854) - A historic initiative that gave India a thorough educational foundation was the Wood's Despatch of 1854. It advocated for a three-tiered educational system that includes primary, middle, and high schools and suggested creating a department of public instruction in each of the five provinces. It supported the teaching of Indian languages while simultaneously promoting the use of English. In order to influence the future of India's educational system, the dispatch underlined the value of professional education and teacher training (Goyal & Aggarwal, 2015).
5. Hunter Commission 1882 - In order to assess the Wood's Despatch's implementation, the Hunter Commission was formed in 1882. It made a number of significant recommendations to enhance the system, including the necessity of expanding primary education and the inclusion of literary and vocational training at the secondary level. Instead of directly managing the system, the Commission urged the government to fund private educational institutions through a grant-in-aid system, which resulted in the

gradual neglect of Indian languages. Nevertheless, the Commission's work helped the nation's secondary education system grow quickly (Goyal & Aggarwal, 2015).

6. Reforms in Education (1901–1904) - Significant reforms were implemented during this time under Lord Curzon's direction. In 1902, the University Commission was established to make recommendations for enhancements to the system of higher education. Among its recommendations were lowering the number and power of university senates, streamlining the testing process, and establishing 16 as the minimum age for matriculation. The commission also suggested that the only schools that should receive formal recognition are those that have earned the education department's certification. The Indian Universities Act of 1904, which was a result of these recommendations, allocated ₹5 lakh over five years to carry out the modifications. Instead of implementing drastic changes, the reforms sought to improve and restructure the current educational system (Goyal & Aggarwal, 2015).
7. Changes between 1921 and 1937 - With a number of significant legislative reforms, this century was critical for Indian education. The Diarchy system was established by the Government of India Act of 1919, which gave provincial governments authority over education. This was further expanded by the Government of India Act of 1935, which gave complete provincial autonomy and gave local ministers direct authority over education. This led to the establishment of teaching-cum-residential universities and numerous statutes to broaden primary education. When the Simon Commission was established in 1928, it found 102 problems with the current system. The Wood and Abbot Committee, which was established in 1936–1937, addressed the ineffectiveness of an excessively literary curriculum and concentrated on advancing vocational education (Goyal & Aggarwal, 2015).
8. Committee on Hartog (1929) - Concerns about teacher preparation were mostly addressed by the Hartog Committee. It was discovered that only 28% of primary school teachers had finished middle school and only 44% had the necessary training. The committee suggested improving the quality of teacher preparation, lengthening training programs, and making sure that training facilities had enough staff members in light of these findings. Additionally, it promoted professional growth and frequent refresher courses for currently employed instructors. The introduction of the Bachelor of

Education (B.Ed.) degree by Andhra University in 1936 and the Master of Education (M.Ed.) degree by Bombay University were two of its most noteworthy results (Goyal & Aggarwal, 2015).

9. University Growth (1922–1937) - Five new universities were founded at Delhi (1922), Nagpur (1923), Andhra (1926), Agra (1927), and Travancore (1937) between 1922 and 1937. The Indian higher education scene was greatly enlarged by these contributions. Approximately 2.15 lakh students were served by 20 universities and 500 related colleges by 1948. English remained the main language of instruction even as the variety of educational institutions increased (Goyal & Aggarwal, 2015).

Although it continued to be mostly available to urban, upper-caste men, higher education grew quickly in the early 20th century. Despite attempts at change, such as the 1944 Sargent Report, severe disparity remained until 1947, when India gained her independence (Choudhary, 2008). The Indian educational system was altered throughout colonial times to more closely mirror the British model, particularly in the 20th century as a result of Macaulay's influence. The primary goal of this system was to produce clerks for the local British government. Higher education was solely available in English, even if local languages were used to teach in schools. Additionally, several traditional schools were funded by the British, who transformed them into government-run establishments. During this time, education prioritized the arts and humanities over science and technology. In the 1920s, British-style education was further developed by missionary institutions (Pandya, 2014).

Post-Independence Education

Indian society has been greatly impacted over time by modernization, industrialization, urbanization, privatization, and globalization. Although literacy rates have gone up as a result of these changes, the educational system's ethical ideals have also decreased (Yadav, 2018).

- **Emphasis on Degrees, Not Education:** Rather than learning actual material or making a positive contribution to society, many students today place more importance on earning degrees and landing well-paying professions (Yadav, 2018).
- **Decline in Ethical and Moral Values:** There is an increasing prevalence of corruption, a lack of self-awareness, illegal activity, and indiscipline (Yadav, 2018).

- Weak National and Social Spirit: People who have not received moral and spiritual instruction are not responsible to their country and community (Yadav, 2018).

Rabindranath Tagore had long acknowledged the need for reform in India's educational system. Students today spend time and money, but they frequently fail to obtain a good education or land a fulfilling job. Sometimes, the fierce rivalry stifles originality and has disastrous results, such as student suicides. Instead of being viewed as a tool for individual development and society contribution, education is frequently just perceived as a way to get rich (Yadav, 2018).

1. Using Technology to Enhance Education

The quality of life has been enhanced by technology, and students need to understand how to use it effectively for cultural development and knowledge exchange. To promote greater learning, education should be given in serene, natural settings (Yadav, 2018).

2. Education Based on Skills

Exams are given too much weight in today's curriculum at the expense of practical skills. In order to ensure permanent empowerment rather than only temporary success, the system should assist students in identifying their strengths and acquiring pertinent skills (Yadav, 2018).

3. Employing Skilled Instructors

Although teaching ought to be a recognized career, some educators do not consider how they teach. Highly qualified and driven teachers who can motivate and guide pupils are needed (Yadav, 2018).

4. Engaging Classrooms

Classrooms should foster student interaction rather than passive learning. To grab students' attention and promote active engagement, teachers should employ interactive teaching strategies (Yadav, 2018).

Policies by the Government

India's higher education system, which had been left over from British colonial control, needed to be drastically changed as soon as the country obtained independence, according to its leaders. To represent the nation's new objectives, such as democracy, secularism, poverty

eradication, socialism, and national unity, Jawaharlal Nehru emphasized that education must undergo a revolution (Choudhary, 2008).

1. Radhakrishnan Commission (1948) - In addition to stressing the importance of education in assisting the nation in overcoming illiteracy, poverty, and illness, it called for universities to take the lead in industry, science, politics, and administration. It suggested changes like the 10+2 school system, lessening overspecialization, encouraging research, and providing education in a range of subjects like business, law, medicine, and agriculture. Additionally, it called for trilingual education (regional, national, and English languages), the gradual replacement of English with Indian languages, and improvements to student welfare (such as scholarships and hostels). Crucially, it promoted the establishment of institutions in rural areas and increased university autonomy. The University Grants Commission (UGC) was established as a result, and it is now the main organization in charge of regulating university growth (Choudhary, 2008).
2. Kothari Commission (1964-1966) - It suggested that education be completely redesigned to be more science-based while maintaining its roots in Indian culture and traditions. It promoted advanced studies, work-based learning, high-quality instruction and research, and advancements in agricultural education (Choudhary, 2008).
3. The 1968 National Policy on Education - The government implemented changes to enhance education at all levels after independence. Among the main highlights were:
 - Children up to the age of 14 are required to attend school for free.
 - promoting teacher autonomy and research.
 - a focus on cultural studies, technology, and science.
 - a particular emphasis on education for children with impairments, girls, and indigenous communities.
 - Despite having many positive aspects, the strategy was difficult to implement because of financial limitations and a lack of state participation (Mishra and Aithal, 2023).

4. National Education Policy (1986) - This policy recognized the need for modernization and implemented:
 - Education structure: 10+2+3.
 - greater emphasis on management and technical education.
 - extension of online education.
 - More rural universities to support agricultural research.
 - Notwithstanding its advantages, problems including high dropout rates and a lack of educational standardization persisted (Mishra and Aithal, 2023).
5. The National Policy of Education (1992) - It established objectives for educational advancement following India's independence. Many of these objectives are still unfulfilled, though. Rote learning still predominates in the system despite warnings against it. Evaluation criteria vary throughout state boards, and advancement has been further impeded by caste and religious reservations, political meddling, and corruption (Pandya, 2014).
6. 2020's National Education Policy - This policy, which sought to modernize education for the twenty-first century, highlighted:
 - Combining traditional schooling with vocational skills.
 - A change from memorization to problem-solving and critical thinking.
 - To monitor academic achievement online, use the Academic Bank of Credit (ABC).
 - By 2035, the goal is to raise the percentage of students enrolled in higher education from 26.3% (2018) to 50% (Mishra and Aithal, 2023).

UNSDG 4 in Education

Building on earlier global education programs, the United Nations created the Sustainable Development Goals (SDGs) as a framework for global development from 2015 to 2030. Beyond basic schooling, SDG 4 expands the definition of education to encompass all educational levels, from pre-primary to adult. It seeks to guarantee inclusive and equitable quality education and encourage lifelong learning (Sareen and Mandal, 2024).

By placing a strong emphasis on digital infrastructure, online learning environments, virtual labs, and closing the digital gap, India's National Education Policy (NEP) 2020 supports SDG

4. However, two indicators are mainly used to monitor progress at the national level (Sareen and Mandal, 2024):

1. The percentage of young adults (18–23 years old) enrolled in higher education is measured by the Gross Enrollment Ratio (GER).
2. Higher education enrollment for men and women is compared using the Gender Parity Index (GPI).

The reality of online and hybrid learning is not well represented by GER and GPI, despite the fact that they offer a comprehensive view, especially in rural and conflict-prone locations. The study makes the case that these metrics are inadequate for evaluating OBHE and urges the use of more pertinent metrics to efficiently monitor advancement (Sareen and Mandal, 2024).

The educational methodology known as Education for Sustainable Development (ESD) gives students the information, attitudes, values, and abilities they need to live sustainably. Meeting present demands without sacrificing the future is the foundation of the philosophy. It encompasses four interrelated domains: the economy, culture, environment, and society. ESD promotes a change in our way of thinking and acting, as well as responsible decision-making, respect for other people, and the environment (Priya, 2024).

SDG 4 encourages lifelong learning and inclusive, equitable, and high-quality education for all. It emphasizes how crucial it is to teach about (Priya, 2024):

- Human rights,
- equality of gender,
- sustainable ways of living,
- global citizenship,
- non-violence and peace (Priya, 2024).

SDG 4 is in line with India's National Education Policy (NEP) 2020. From early childhood to higher education, it seeks to modernize the entire educational system with an emphasis on (Priya, 2024):

- interdisciplinary education,
- Combining abilities and principles,
- Increasing the inclusivity of education,
- Promoting global cooperation (e.g., international universities),

- encouraging problem-solving and critical thinking.
- The goal of NEP 2020 is to preserve traditional values while equipping Indian citizens with 21st-century capabilities. Additionally, it highlights accountability and openness in educational establishments (Priya, 2024).

A multidisciplinary approach that addresses social, ethical, economic, and environmental facets is recommended by experts for teaching sustainability. Integrating sustainability into teaching strategies, learning objectives, and curriculum is crucial. Fostering critical and creative thinking, flexibility, and well-informed decision-making are the objectives (Priya, 2024).

Issues

Even though India has one of the biggest educational systems in the world, issues with equity, quality, and access continue to plague it. Systemic problems that impede educational attainment have been noted by a number of academics and policy papers, especially in underprivileged and rural areas. This literature emphasizes the problem's multifaceted nature, which includes government inefficiencies, educational flaws, and infrastructure deficiencies (Hill & Chalaux, 2011).

Despite higher enrollment numbers, studies like Kingdon (2007) and the ASER reports consistently highlight pupils' learning deficiencies. These results imply that the quantitative growth of education has not resulted in qualitative improvements. Similar to this, the National Education Policy (NEP) 2020 promotes fundamental reading and numeracy as top priority and stresses a comprehensive and adaptable approach. Early childhood care, vocational education, and teacher preparation are emphasized in the policy framework as key components of systemic change (Hill & Chalaux, 2011).

Inadequate financing, shoddy facilities, an antiquated curriculum, and unequal access in rural areas are some of the issues facing the Indian educational system today. Exam revisions, a lack of creativity, and the commercialization of education are further problems. The system has advanced significantly in spite of these failures, particularly in domains like IT, engineering, and medicine. India excels in innovation, producing highly qualified people and providing affordable medical treatments, even though it may not be the leader in original inventions (Pandya, 2014).

Current Developments

1. Secondary Level Grading System Introduction (2010) -
The CBSE implemented a grading scheme for Class 10 pupils in March 2010. Creating a more laid-back and happy learning atmosphere was the primary objective. The goal of the grading scheme was (Goyal & Aggarwal, 2015):
 - Don't evaluate kids just on their grades.
 - Cut down on unhealthy rivalry between pupils who perform well.
 - Reduce social pressure and give students greater freedom.
 - Encourage a fun and stress-free learning environment (Goyal & Aggarwal, 2015).
2. Comprehensive and Ongoing Assessment (CCE) (2009) - In order to evaluate pupils more fairly, CBSE implemented the Continuous and Comprehensive Evaluation (CCE) in 2009. CCE examined a student's academic, personal, and emotional growth rather than merely their test results (Goyal & Aggarwal, 2015).
 - Students are assessed on a frequent basis throughout the year thanks to continuous assessment.
 - A thorough review takes into account personality development and extracurricular activities in addition to academic performance.
 - Reducing exam pressure and giving a more comprehensive picture of each student's development were the objectives (Goyal & Aggarwal, 2015).
3. The Right to Education Act of 2009 - Every Indian kid between the ages of six and fourteen now has the legal right to an education thanks to the Right to Education Act (RTE), which was passed in August 2009. It guarantees (Goyal & Aggarwal, 2015):
 - Up until the completion of primary school, attendance at local schools is free and required.
 - The government must guarantee that all children are admitted, attend, and finish school if it is mandatory.

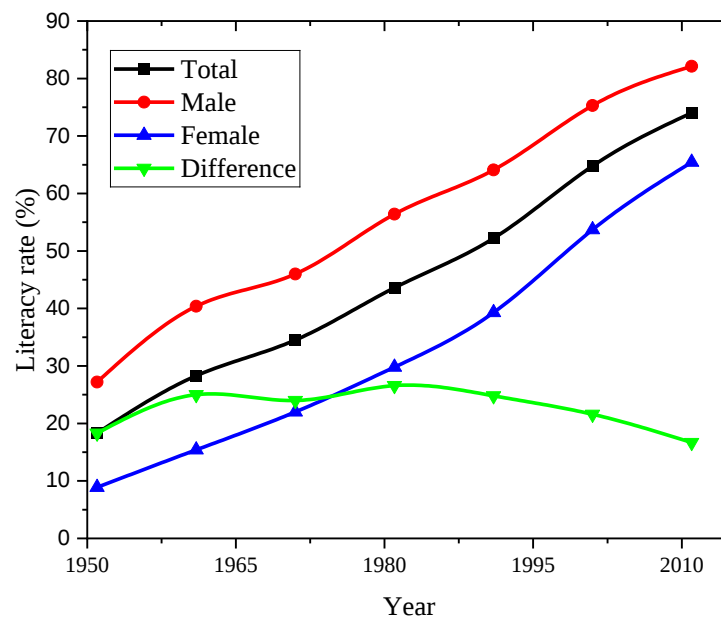
- Free means that there are no costs or levies that prevent any child from receiving an education.
 - It is possible to place unenrolled children in age-appropriate classes.
 - The Act lays out exactly what the government, local governments, and parents are supposed to do.
 - It establishes guidelines for teacher working hours, school days, class sizes, and school facilities.
 - Except for disaster relief, elections, and censuses, teachers must be suitably qualified and cannot be entrusted to non-teaching tasks.
 - It outlaws detrimental practices such as administering screening tests at the time of enrollment, demanding capitation fees, mental harassment, and physical punishment.
 - Additionally, it forbids operating unapproved schools and allowing teachers to tutor students privately.
 - The curriculum should foster creativity, support general development, and remove pressure and fear from learning (Goyal & Aggarwal, 2015).
4. The goal of the Rashtriya Uchchatar Shiksha Abhiyan (RUSA) is to raise the standard, equity, and accessibility of higher education throughout India. In order to assist growth, it encourages private sector involvement while concentrating on growing current institutions and building new ones in underserved areas. Through the establishment of new colleges, professional institutes, and vocational training, one of the main objectives is to lessen regional inequities and advance chances for socially and educationally disadvantaged groups, especially SC/ST populations (Ghara, 2018).

According to the larger perspective, education is an essential instrument for development, with a focus on social justice, human rights, and sustainable advancement. It seeks to remove gender discrimination in education and places a high priority on inclusive policies, particularly for underrepresented groups and people with disabilities. To improve the quality of education, science, innovation, and ICT utilization must be strengthened (Ghara, 2018).

Aiming for 4–6% of GDP or 15–20% of overall public spending, governments are urged to boost education spending. Indicators such as institutional dispersion and enrollment patterns will be used to gauge progress (Ghara, 2018).

Results and Discussion

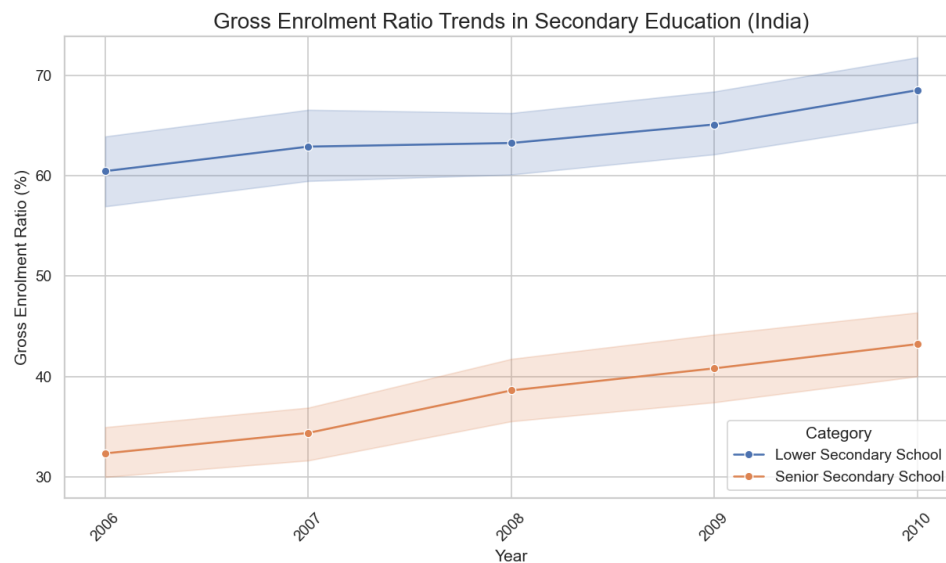
Fig. 1: Literacy rate according to gender and difference between them



Source: Open Government Data (29 April 2025)

The literacy rates for men and women over time are shown in the fig. 1. It draws attention to a persistent inequity, where men attain greater reading levels than women. Even so, there have been steady advancements for both sexes, demonstrating India's efforts. However, male literacy rate is higher when compared with total and female, though the literacy rate difference between male and female shows a decreasing trend. This shows that through many educational schemes like Sarva Shiksha Abhiyan and Beti Bachao Beti Padhao reduction in literacy rate difference between males and females have been observed.

Fig. 2: Gross Enrolment Ratio in Secondary Education in India



Source: Open Government Data (29 April 2025)

The Gross Enrollment Ratio (GER) in fig. 2, shows that secondary school enrollment is on the rise in India. This illustrates the effectiveness of government programs like the Rashtriya Madhyamik Shiksha Abhiyan and the Right to Education Act. The growing trend points to increased accessibility and awareness, but in order to guarantee long-term educational progress and retention at the secondary level, concerns like dropout rates and educational quality still need to be addressed.

Conclusion

The Gross Enrollment Ratio (GER) graph shows that secondary school enrollment is on the rise in India. This illustrates the effectiveness of government programs like the Rashtriya Madhyamik Shiksha Abhiyan and the Right to Education Act. The growing trend points to increased accessibility and awareness, but in order to guarantee long-term educational progress and retention at the secondary level, concerns like dropout rates and educational quality still need to be addressed.

India's authorities came to understand the critical role that education plays in the country's growth after independence. Broadening access, improving quality, and coordinating education with national objectives were the objectives of several commissions, reforms, and programs, including the Radhakrishnan Commission (1948), the Kothari Commission (1964–66), and succeeding National Education programs. Although quality inequalities still exist, programs

like the Rashtriya Uchchatar Shiksha Abhiyan, the Right to Education Act, and the Sarva Shiksha Abhiyan greatly raised literacy rates and enrolment ratios.

The adoption of the Sustainable Development Goals (SDGs), especially UNSDG 4, represents a global recognition of the importance of education in attaining social justice, equality, and sustainable development. With its emphasis on diversity, multidisciplinary learning, and lifelong learning, India's NEP 2020 is a move in line with SDG 4. A forward-thinking strategy to prepare students for global issues is shown in the transition to a 5+3+3+4 structure, the integration of traditional knowledge systems, and the emphasis on digital literacy, early childhood education, and vocational training.

There are still issues in spite of these forward-thinking developments. India's educational objectives are still hampered by gender differences in literacy rates, unequal access to high-quality education in rural and underserved areas, and inadequate infrastructure. Strong digital infrastructure and integrated learning solutions are desperately needed, since the COVID-19 epidemic further revealed flaws, especially the digital divide. Initiatives supporting online and hybrid learning are growing, but they need careful planning to guarantee equal access, particularly in areas like Jammu & Kashmir and Ladakh that are prone to conflict.

Additionally, the emphasis needs to change from memorization to the development of creativity, critical thinking, and problem-solving skills. The education system must become more resilient, flexible, and student-centered, and teacher quality and training must be improved. Reintegrating moral and ethical education is necessary to create citizens who are not only capable but also accountable.

In conclusion, despite the complexity and diversity of India's educational history, the current NEP 2020 reforms and UNSDG 4 initiatives provide a promising future. The government, institutions, educators, and society at large must all make a consistent commitment if the goal of inclusive, egalitarian, and high-quality education for everyone is to be realized. The foundation for enabling India's future generations and promoting sustainable national and international development would be a comprehensive strategy that values innovation, tradition, equity, and excellence.

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Definitions

UNSDG 4: a worldwide objective to guarantee universal access to high-quality, inclusive, and egalitarian education by 2030, including possibilities for lifelong learning.

NEP: From early childhood to higher education, India's 2020 education reform agenda encourage transdisciplinary, flexible, and holistic learning.

BRICS: Brazil, Russia, India, China, and South Africa are five growing economies that work together on global concerns, including education.

Policies: Governments and institutions establish policies and plans to direct the development and operation of educational systems.

Infrastructure: Classrooms, labs, libraries, the internet, and learning platforms are examples of the digital and physical resources needed for education.

COVID-19: a worldwide pandemic that caused significant disruptions to education, including school closures and a move toward remote and online instruction.

Online Education: An online learning approach that provides remote access to virtual classrooms and instructional materials.

STEAM: a method of teaching that promotes creativity and invention by combining science, technology, engineering, the arts, and mathematics.