HORIZON

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UNVEILING POTENTIAL

A Closer Look at the Indian Education System

EMPOWERING MINDS

Navigating the Landscape of Indian Education

CONTENTS

EDITOR'S MESSAGE

In this issue, we turn our focus to one of the most enduring pillars of Indian society: the education system. From ancient Gurukuls to modern-day institutions, the journey of education in India has been a tapestry woven with tradition, innovation, and challenges.

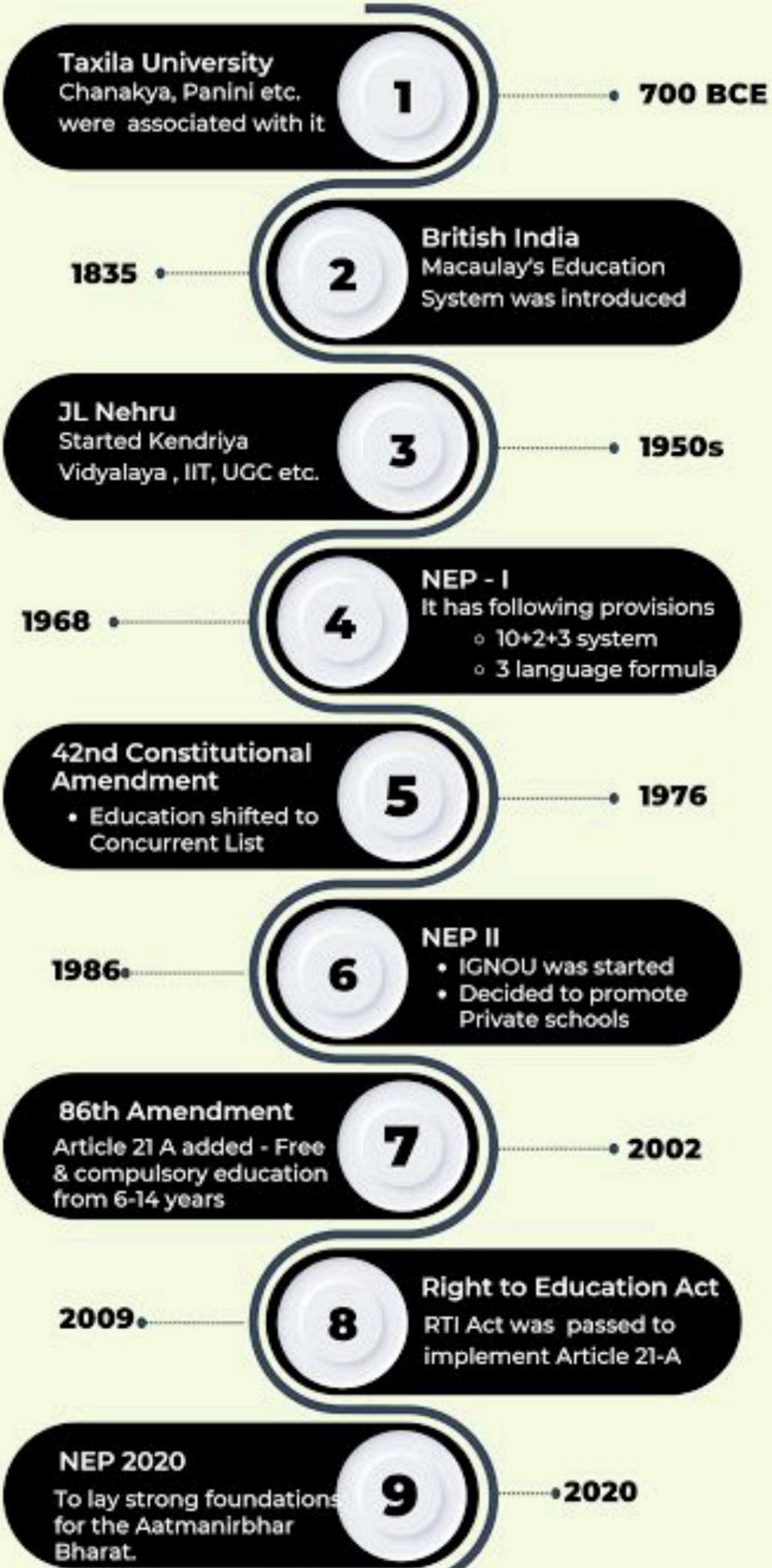
Exploring the rich tapestry of our educational heritage, we delve into the transformative phases that have sculpted the landscape we navigate today. From the Vedic era's emphasis on holistic learning to the colonial legacy that introduced institutionalized education, each chapter has left an indelible mark on our collective consciousness.

Through insightful analysis and firsthand accounts, we navigate the complexities of the present-day Indian education system. From debates surrounding curriculum reforms to the ever-evolving role of technology, we confront the pressing issues that shape the educational experience of millions.

As we reflect on the past, our gaze remains firmly fixed on the horizon of possibility. Together, let us embark on a journey of exploration, introspection, and advocacy, envisioning a future where every individual has access to quality education that empowers and enlightens.

Join us as we navigate the labyrinth of the Indian education system, unraveling its intricacies and envisioning pathways to a brighter tomorrow.

SIDDHI SHASTRI


Taxila University
Chanakya, Panini etc. were associated with it
1
700 BCE
1835
2
British India
Macaulay's Education System was introduced
JL Nehru
Started Kendriya Vidyalaya , IIT, UGC etc.
3
1950s
1968
4
NEP - I
It has following provisions
10+2+3 system
3 language formula
42nd Constitutional Amendment
Education shifted to Concurrent List
5
1976
1986
6
NEP II
IGNOU was started
Decided to promote Private schools
86th Amendment
Article 21 A added - Free & compulsory education from 6-14 years
7
2002
2009
8
Right to Education Act
RTI Act was passed to implement Article 21-A
NEP 2020
To lay strong foundations for the Aatmanirbhar Bharat.
9
2020

HISTORY OF INDIAN EDUCATION SYSTEM

The Indian education system has gone through many transformations since the beginning of time. As we delve deep into the Indian education system, it is important to understand what all changes it has been through and the impact of these past experiences in the current education scenario.

- **Ancient Period (Pre 1000 BCE)**

In the ancient period the education was mainly imparted in the Gurukuls. The word has 2 parts Guru meaning teacher and kula meaning home. Hence, in those times, shishyas (students) used to stay with their Gurus for education. The schooling mainly included subjects of Upanishads, Vedas, scriptures, philosophy, literature, mathematics, astronomy and warfare. The Vedas included 4 principles; Rig-Veda, Samaveda, Yejurveda and Atharvaveda. It also included the ancient Indian medical science of Ayurveda. The Gurukuls were a hub for knowledge, ethics and values. The Gurukuls also practiced Yoga for the mental, physical and spiritual well-being of the students.

The great Indian mathematician Aryabhata was a Gurukul shishya. He was one of the great astronomers of his time and had formulated many theories of Algebra, Trigonometry and Geometry. He is well known all over the world for invention of Zero.

- **Classical Period (1000 BCE – 1200 CE)**

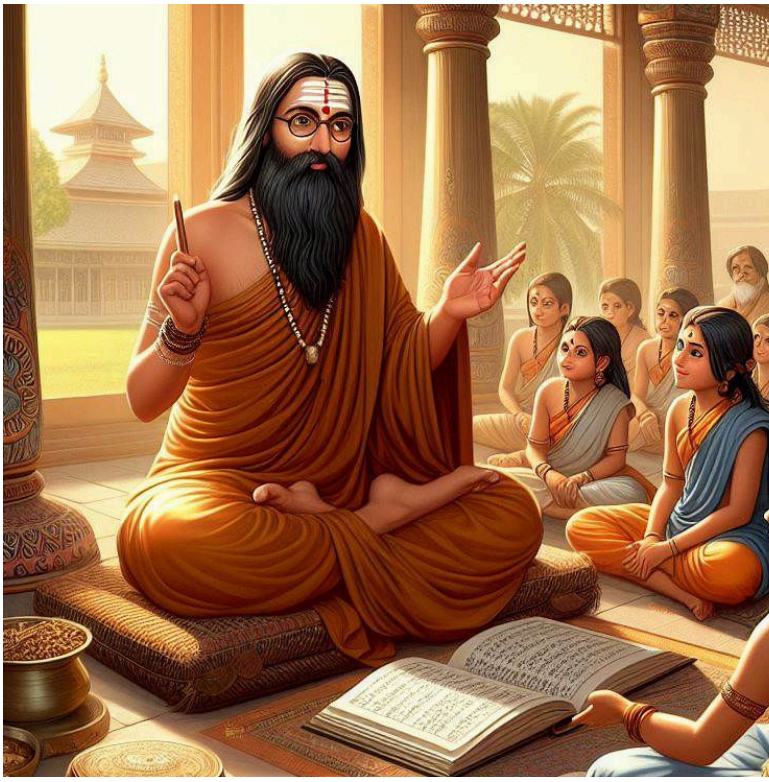
This era was mainly characterized by the establishment of universities. One the oldest universities in India such as Nalanda, Takshashila, Vikramashila and Valabhi emerged in this era. The era also saw the rise of scientists such as Aryabhata, Bramhagupta and Charaka making valuable contributions to the field of science and mathematics. In that time Buddhist and Jain education also prevailed disseminating knowledge and preserving texts. Buddhism also imparted similar knowledge as Hinduism with the 3 main pillars of education being discipline, meditation and wisdom. Instead of Gurukuls, they had Monasteries and Viharas where a Monk would be the teacher and guardian of the students.

- **Medieval Period (1200 CE – 1700 CE)**

With the rise of Islamic rule in India during the medieval period, the Indian education system saw a transformative change. Now the two main institutions for education were Gurukuls and the Madrasas. Madrasas were Islamic schools where the teachings were based on Islamic philosophies, Quran, Hadith (sayings of the Prophet), Arabic language and the Islamic law. The education also included astronomy, mathematics and medicine. Madrasas and Gurukuls played a key role in imparting and preserving knowledge which immensely contributed in the development of Indian culture. In the medieval times, education for women was limited. Girls were not given equal opportunities as boys. Though this was the situation, yet some people encouraged education for women too. Akbar established a school for girls in the 16th century. The medieval period also gave birth to many noted scholars such as Kabir, Tulsidas, Ramanuja, Ibn Battuta and many more. These were mainly poets, saints and travelers.

- **The British Era (1700 CE – 1947 CE)**

During the 18th century the rise of colonial period began when the Britain started ruling over India. The British East India Company completely changed the education system majorly impacting the Indian history and culture. The education during the British era mainly focused on western philosophies. In 1771, Charles Grant suggested that western education be implemented in India. He also proposed that English be made the national language of India and that English be used in teaching.



However, this proposal was rejected because the British Raj did not want any more tensions to be caused by this decision. The education was limited and focused on catering to the goals and objectives of the colonial administration. Thus, the subjects taught were in English and relating to English literature, science and mathematics. The Charter Act of 1813 gave a 1 lakh rupees provision for education of the locals. In 1835, Thomas Babington Macaulay laid out his infamous Macaulay's Minute stating the importance of imparting English education to the Indian natives. According to him, English education should be imparted because the traditional Indian education was 'defective' and 'unholy'. He suggested that the education be given to the upper and middle-class citizens. During this period many universities were established preaching western education to the locals. This slowly devasted the traditional Indian education system and created a system that facilitated the colonial rule.

• Post Independence Era

The Britain ruled for over 200 years and left their mark upon the Indian culture. English was now predominant in India and still continues to be till date. In 1951 India's literacy rate was mere 19.3% which grew substantially to 74% in 2011. These changes happened through many reforms and government schemes for educating the Indian public. The Planning Commission was established by the Indian government in 1950 to create a blueprint for the advancement of several facets of society, including education.

Thereafter, more plans were created and put into action, usually every five years. These plans aimed to accomplish the following main objectives:

- Establish universal elementary education.
- End illiteracy.
- Create programs for vocational and skill training.
- Modernize and upgrade standards at all educational levels, emphasizing science, technology, and environmental education.
- Provide facilities for high-quality education in every district of the nation.

Many important governmental bodies were established to facilitate making and regulating the education policies. These included the All-India Council of Technical Education (1945); responsible for maintaining a standard for technical education, the University Grants Commission (1953); responsible for determining the standards for teaching, evaluation and research in universities, the National Council of Education Research and Training (1961); responsible for upholding the quality of school level education. In 2001, government of India announced Sarva Shiksha Abhiyan (SSA) is an education plan for students aged 6 to 14 providing Universal Elementary Education to every student. The program aims to provide top quality education and continuously improve this quality to make the students competitive in the world.

THE NATIONAL POLICY ON EDUCATION (NPE) OF 1986 WAS A LANDMARK DOCUMENT THAT OUTLINED THE VISION AND FRAMEWORK FOR EDUCATION IN INDIA.

KEY FEATURES:

1. Universalization of Education: The NPE aimed to achieve universal access to education for all children up to the age of 14 (now extended to 18 under the Right to Education Act). It emphasized the importance of providing free and compulsory education to all children to eliminate disparities in access.

2. Improvement of Quality: The policy emphasized the need to improve the quality of education at all levels, from primary to higher education. It sought to enhance the relevance and effectiveness of educational programs to meet the needs of a rapidly changing society.

3. Promotion of Science and Technology: Recognizing the importance of science and technology in national development, the policy emphasized the promotion of scientific temper, innovation, and technological advancement through the education system.

4. Education for Social and National Integration: The NPE emphasized the role of education in fostering social cohesion, national integration, and the preservation of India's cultural heritage. It sought to promote values of democracy, secularism, social justice, and equality among students.

5. Adult Education: The policy recognized the importance of adult education in empowering marginalized and disadvantaged groups, such as women, rural populations, and minorities. It called for the expansion and strengthening of adult education programs to promote lifelong learning opportunities.

Examination System:

Under the 1986 education policy, the examination system aimed to assess students' knowledge, skills, and understanding of the curriculum. Key features of the examination system included:

- Periodic assessments: Regular tests and examinations conducted throughout the academic year to evaluate students' progress.
- Board examinations: Standardized board examinations conducted at the end of certain stages of education (e.g., Class 10 and Class 12) to certify students' completion of those levels.
- Emphasis on continuous evaluation: Encouragement of continuous and comprehensive evaluation methods to assess students' overall development, including cognitive, affective, and psycho motor domains.

Syllabus:

The syllabus under the 1986 education policy were designed to provide a balanced and comprehensive education that encompassed various subjects and disciplines. Key aspects of the syllabus included:

- Focus on core subjects: Emphasis on foundational subjects such as mathematics, science, social studies, and language arts to develop students' critical thinking, problem-solving, and communication skills.
- Integration of vocational education: Introduction of vocational subjects and skill-based courses to prepare students for employment opportunities and entrepreneurship.
- Flexibility and choice: Provision of flexibility in the curriculum to accommodate diverse learning needs and interests, allowing students to choose elective subjects and pathways based on their career aspirations and aptitudes.

- Emphasis on values education: Integration of value-based education to instill ethical values, social responsibility, and citizenship among students, promoting holistic development.

Other Important Information:

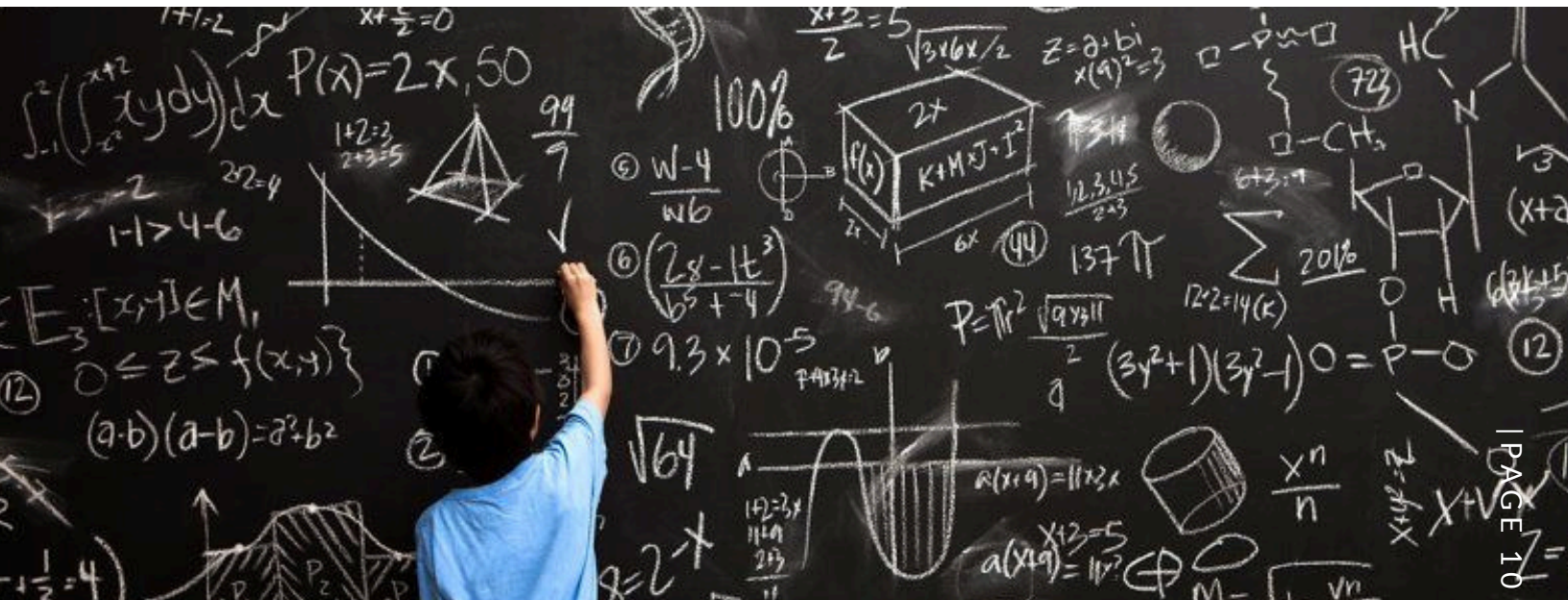
- Teacher Training: The NPE emphasized the importance of teacher training and professional development to enhance the quality of teaching and learning. It called for the establishment of teacher training institutions and the implementation of in-service training programs for educators.
- Educational Infrastructure: The policy underscored the need for adequate educational infrastructure, including schools, classrooms, libraries, laboratories, and instructional materials, to support effective teaching and learning.
- Funding and Governance: The NPE highlighted the role of government funding and decentralized governance structures in ensuring equitable access to education and efficient management of educational institutions.

The policy also placed special emphasis on removing disparities and equalizing educational opportunities, particularly for Indian women, Scheduled Tribes (STs), and Scheduled Castes (SCs) communities

Overall, the National Policy on Education of 1986 laid the foundation for significant reforms and initiatives in the Indian education system, shaping the trajectory of education policy and practice in the country for decades to come.

NATIONAL EDUCATION POLICY 2020

The Indian education system has gone through many transformative changes and the National Education Policy 2020 was one of the most important changes in the context of modernization and development. Government of India has announced that 6% of GDP will be given to implementation of the NEP (which was 3% before). Let's delve deeper into the major changes implemented in this policy.



SCHOOL EDUCATION:

School is the foundation of all education and professional career. In the NEP 2020, school education is divided into 4 stages across 15 years. These are Foundation Stage, Preparatory Stage, Middle Stage and Secondary Stage. The foundation stage consists of 5 years; playschool, class 1 and class 2. The main feature of this stage is that there will be no examinations conducted in this stage so that students have fun learning and do not fear school rather get attached to school. After Foundation stage, the student will go through 3 years of preparatory phase in class 3, 4 and 5. NEP gives provision to students to opt for a regional language in the preparatory phase but doing so is not mandatory to the school. After this, the student will be admitted to Middle Stage consisting of class 6, 7 and 8. In this stage, subjects such as Mathematics, Science, Social Science, Computer Coding and Vocational Training will be provided. Apart from these 5 subjects, students have to study 1 Indian language such as Sanskrit, Urdu, Marathi, Gujrati etc. In the final phase of schooling i.e. Secondary phase consists of 4 years of class 9, 10, 11 and 12. In this stage, semester wise examinations will be conducted to evaluate the students. Apart from this, the government has abolished the practice of choosing streams in the 11th class such as science stream, commerce stream and arts stream. Rather, in the NEP, the students can choose subjects from multiple streams according to their interests.

HIGHER EDUCATION:

The NEP allows students to have a multi-disciplinary approach to studies, providing the opportunity to choose subjects of their interest from multiple streams. For example, a student pursuing a bachelor's degree in literature can choose an elective course in entrepreneurship to develop inter disciplinary skills. This is a unique provision allowing students to experiment their career options and gain a wholistic knowledge of all the courses.

The NEP also allows multiple entry and exit points to students in the course of their degree. This means, if a student completes one year of higher education and decides to drop out for personal reasons, he/she will receive a certificate, for 2 years, a diploma and for 3 years, a bachelor's degree and so on. In this way, a student can opt to exit out of the degree at any time, accumulate the number of credits and resume his/her education in a later stage and not lose any academic progress. This sort of flexibility is very useful to students. The NEP also proposed National Academic Bank of Credits, wherein the credits earned by the student will be stored digitally under the name of the said institute and will facilitate in the transfer of credits should a student choose to transfer to another institute, allowing him/her to resume the education without starting from scratch.

The NEP also proposes to have a single statutory body for handling the quality and standards of higher education which is called Higher Education Commission of India (HECI). The HECI is set to replace multiple statutory bodies such as University Grants Commission (UGC) and All-India Council for Technical Education (AICTE). NEP has also proposed to emphasise on research and innovation and set up the National Research Foundation (NRF) aimed at funding research-based activities across multiple disciplines in many institutions. Technology integration is also a key aspect of NEP. It plans to set up the National Educational Technology Forum (NETF) to facilitate the integration of technology for teaching, learning and assessment.

TEACHER TRAINING AND DEVELOPMENT

To implement all the changes set forward in the NEP, teachers have to play the most important role in imparting the knowledge based on the new policy. Hence, NEP proposes to train teachers with new techniques to help them get students acquainted to the new ways of education. Teachers now have to continuously learn new skills and upgrade their knowledge to keep the students up-to-date. National Professional Standard for Teachers (NPST) was established to train teachers with high-quality professional knowledge and skills.

Like everything, the NEP has its own drawbacks such as:
1. NEP has made all degree courses of 4 years, compelling a student to go through 4 years of learning whereas he/she can dropout with a diploma in just 2 years. This puts doubt in the students' mind whether to complete all 4 years of education.

2. The NEP proposes integration of technology in teaching and learning. While this is beneficial for the urban sector, it poses as a disadvantage to the rural sector as they may find it challenging to keep up with it because of financial and knowledge setbacks. This will deeply reflect in the competitive examinations where urban students will perform well because of the resources they are provided with and the rural students who lack them.

3. NEP provides flexibility students in choosing their languages and subjects. This provides a challenge of decentralization leading to disparity in terms of standardization and quality control of education across the country.

4. The NEP proposes many changes but in order to implement them, substantial resources of finance and man power will be required. Institutions will have a major challenge with keeping up with these problems.

5. NEP proposes a centralized system for quality control and accreditation in the form of HECI, abolishing the UGC and AICTE. This will cause a bureaucratic challenge for the government and will lose the special focus for the intended bodies.

RELEVANCE OF NEP IN MODERNIZATION

Looking forward into the future, the NEP has to be relevant in the context of modernization and development. Does it promise to be relevant in this context? Let's find out.

- The NEP 2020 promotes overall development of the students by developing critical thinking, innovative thinking, communication and digital literacy. These skills help students be competitive in the fast-changing world.

- The NEP provides multi-disciplinary approach to education for the students. Students can acquire skills from more than one discipline and increase their options of professional career and reducing the chances of failure.

- Vocational Skills: A student will feel confident in his/her field of interest and will be able to express their knowledge and skills confidently in that field. NEP provides the opportunity to have those vocational skills along with the mainstream education.

- Adaptability: Students can learn and adapt any new skill that they wish. This adaptability and flexibility become a habit in their life and helps in overcoming professional challenges.

- Inclusiveness: NEP promotes the educational development of all classes and sectors of India, thus promising the overall development of the country. Though it has its drawbacks in implementation in the rural sector, it will slowly make its way into all the economic classes.

The National Education Policy 2020 is a promising start to modernize the Indian education system. With its flexible provisions, it is an aid to an already stressed student life in the competitive world. NEP has many drawbacks as of now, but the intent of the policy promises development of the nation.

MODERN METHODS OF TEACHING

Education has evolved drastically over the years and so has the teaching-learning process. With information available at our fingertips in the form of smartphones and laptops, educational institutes are adopting new methods of teaching in their curriculum to engage and impart the students. COVID-19 pandemic was the inception of digitized learning. With lockdown all over, universities, colleges and even schools had to shift to an online form of teaching-learning to continue the process of knowledge transfer. Gone are the days of traditional learning methods. Many universities are now aiming to be a completely digital university, eradicating the old and monotonous methods.

In the previous years, teaching used to be a one-sided activity which has now been transformed into a teaching-learning process, which is two ways. It is no longer teacher coming and lecturing the students for an hour with no heed to whether the students understood or not. Modern methods are more interactive, compelling the student to think about the subject, develop ideas and ask question such as “how” and “why”. Let us discover some new teaching methods being implemented in the current education scenario:

1. Active Learning:

It is a form of learning where in the participation of the students is equally important as the teacher’s. Students explore the subject through group discussions, research and presentations. This helps in engaging the students in the academic activity and also enhances the learning experience as compared to just lecturing.

2. Project Based Learning:

A very effective form of teaching-learning experience where in the students are given a course project that they carry out throughout the duration of the course. This project encompasses all the theories and content of the syllabus into a practical form. The project statements or problem statements are concerned with real-life problems which develops critical thinking among students and makes them problem solvers.

3. Technology Integration:

Digital learning is a booming concept and it is a more interactive and easily comprehensible form of learning. These include presentations, educational apps, online certification courses and much more. When it comes to e-learning, sky is the limit. Universities are now implementing technologies such as tablets for conducting examinations.

4. Curiosity Learning:

Students are very curious as they should be at their age. Curiosity develops into questions such as “Why so?”, “How is that?”, “Why not so?”. Students who ask these questions have the ability to explore unimaginable things and find logic in situations. The students have to be given freedom to ask questions and themselves come to a reasonable conclusion based on the facts that the teacher produces to them.

5. Case-study Based Learning:

Another practical approach to teaching is case-study based learning wherein the students are presented with a real-life case related to the subject which acts as an example to better understand the subject. In areas such as business administration, these cases act as a benchmark for students to apply the solutions to their problems.

UNIQUE METHODS OF EVALUATION

A student enters a higher education institution from a closed and supervised learning ecosystem in school education to a semi-open and semi-supervised learning ecosystem. As the student graduates he enters an open and unsupervised environment in the job market and is supposed to solve real-life problems. Therefore, the objective of any higher education system is to make appropriate interventions during his studies to prepare the student for facing an unsupervised and open environment after his/her graduation. One of the important interventions in preparing the student is effective assessment and evaluation system.

A typical higher education programme has well-defined programme outcomes or graduate attributes. These outcomes are statements that clearly state the ability of a student to demonstrate a particular knowledge, skill and attitude required at the end of the programme under consideration. Based on the programme outcomes, courses are designed and delivered to the students. A well-designed course aligns with the desired programme outcomes through the meticulously defined course outcomes. However, the main challenge is the delivery of the designed content for effective learning so as to achieve the desired outcomes. Although a teacher starts his delivery as per the syllabus, the students start preparing as per the assessment pattern as the students learning is always driven by assessment and not by content (syllabus). Therefore, assessment plays a key role in achieving the desired outcomes.

The main challenge for any teacher is the formative assessment which drives his strategy of delivery for achieving the learning outcomes. It is important to understand that formative assessment if “for learning” and summative assessment is “of learning”.
Formative assessment is an informal assessment strategy for gathering the information on student learning during the delivery of the content. The formative assessment strategies to be used depend on many factors like learning preferences of students, what aspect of students learning is to be measured and so on.

The learning outcomes of a student can be assessed at different cognitive levels of Bloom’s Taxonomy like remembering, understanding, applying, analysing, evaluating and creating. It is normally very difficult to assess the higher order thinking skills like analysing, evaluating and creating through summative assessments. Therefore, many formative assessment strategies can be used based on the context of learning and nature of the course to assess the higher order thinking skills.

It is also equally important to declare the way the learning outcomes are assessed by the teacher in advance so that students are motivated to learn, Following are some of the formative assessment strategies used.

1. Discussion: This can be in pairs or small groups which can start midway during a class. The teacher can list out words related to the topic under consideration and engage the students in discussion using those words as key words. The teacher will be able to assess what the students have understood and makes suitable interventions to improve learning.

2. Conference: This can be used as a tool to motivate students to express themselves and their learning can be assessed through thoughtful questions by the teacher.

3. Mini projects: After the end of lesson the students can be asked to take real-life situation related to the topic, identify and define the problem and try to give multiple solutions to the defined problem.

4. Questions on email: Pose questions to check higher order thinking skills through official email and ask them to respond in a given time frame.

5. Fist of Five: Ask your students to raise one finger if a student is unsure of his understanding of the topic, two for fair understanding and so on. After seeing the fingers, the teacher will get a fair assessment of students' level of learning.

6. Peer assessment: Peer assessment by the students themselves can be quite effective as the students are excited to assess others and feel confident when they compare their performances with the peers.

The formative assessment is not only a tool to gauge the understanding of the students but also effective in adjusting the delivery strategy as per the requirements of measured learning outcomes. A proper combination of delivery strategies and formative assessment strategies will achieve the learning outcomes of the students. A student having the appropriate graduate attributes will confidently face the open and unsupervised ecosystem of job market.

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Fun FACTS

- IIT Kanpur has its own Flight Laboratory.
- City Montessori School (CMS) located in India is the world's largest school
- Indian government provides free education to all children between the age of 6 to 14 years
- The current education system in India is the world’s second-largest
- India is a linguistically diverse country, with students learning at least 3 languages.
- India has witnessed innovations in education delivery, including online learning platforms, massive open online courses (MOOCs), and virtual classrooms.
- Nalanda University is renowned as the oldest continuously operating university globally.

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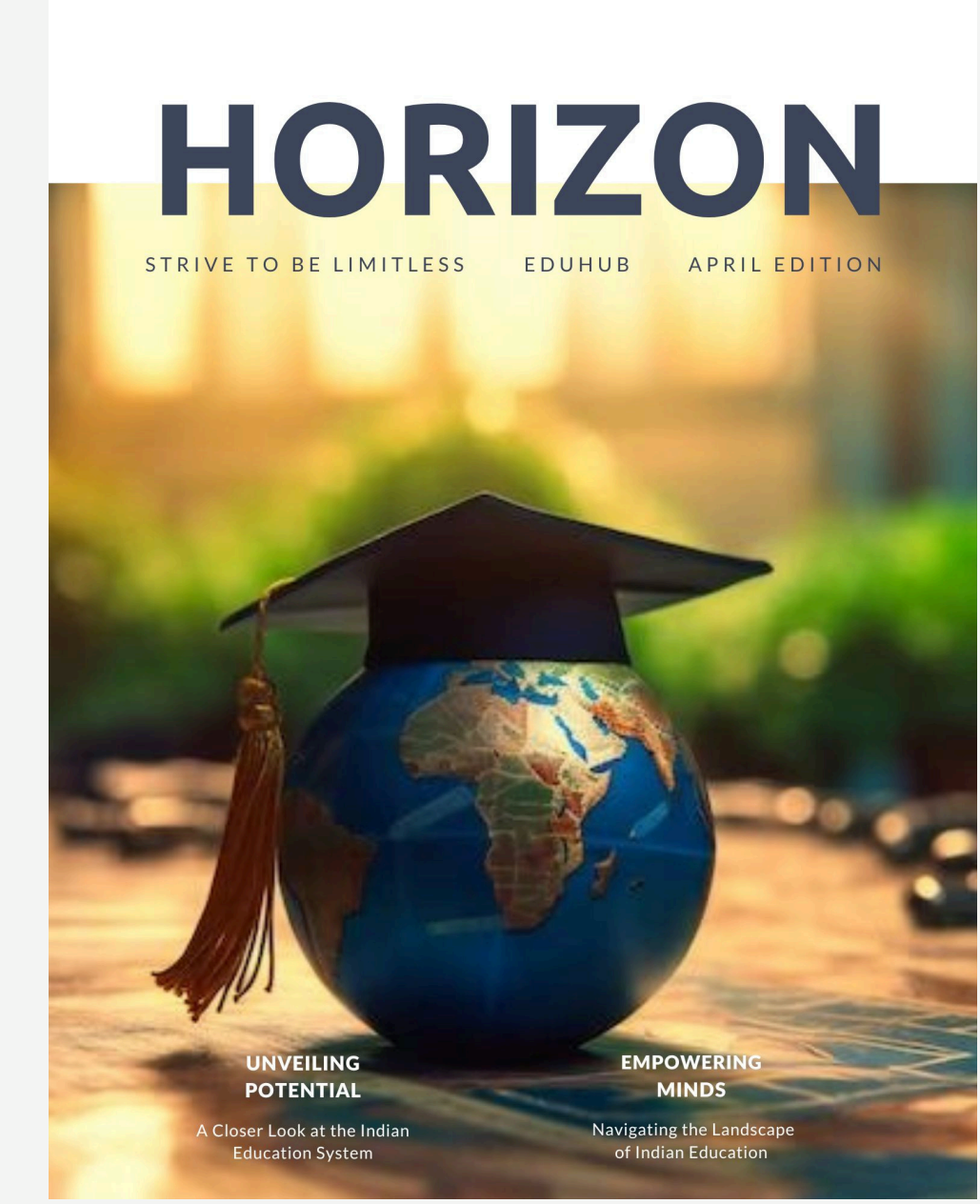

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