

# New Education Policy 2020: Focus on Creativity, Research and Innovation

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## Abstract

With its vision to improve the overall quality of education, National Education Policy 2020 (NEP) released on July 29, 2020 after thirty four years of the earlier policy, brings paradigm shift in the education system of India. The policy has sought to overhaul the whole spectrum of Indian Education System by restructuring the contours of higher education. The important elements of the policy foster creativity, critical thinking and innovation among students. Various challenges being faced by the educational institutions and the educators of higher education in wake of changing and advanced technologies and communication means have been taken care. New age learning methods and tools are required to be applied. The educators need to learn and cope up with the changing methods, techniques and new areas of knowledge. Under the policy the educational systems need to achieve and assure quality, work for unified frameworks for assessment and strive for international recognition. The purpose of innovation is clearly woven through various initiatives in the policy. They are very well related to generation of new ideas and avenues with more outputs and less of the inputs. The innovations thus are the solutions to conserve and preserve the culture, the resources and the environments. Innovation has a tremendous impact on almost all the aspects of society because the result of the innovation always leads to improvement. Innovation has imminent link with research, as the research also always seeks to bring the change or improvement by seeking solutions to the various issues and problems existing all around us. Both research and innovation are the growth engines in this technologically driven era, where sustainability depends totally on these two factors. Research and innovation is so important in all spheres of our activity today, whether individual, societal, governmental or market levels, that innovation and critical thinking can not be ignored. It is directly related to developing innovative, progressive and prosperous nation. NEP puts emphasis on creating culture of innovation.

**Keywords:** Critical thinking, Transformation, Skilling, Knowledge, Empowerment.

## Introduction:

Creativity, critical thinking, research and innovation are very significant in bringing transformation by generating new knowledge in new areas. Innovation is what adds value to the products or the processes. Technological and scientific innovation is also the main source of development and economic growth. More so, can be aptly said, in relation to market oriented economies where, innovation and research are the buzzwords and which they put lot of emphasis on. Innovation and research are important if one wants to remain relevant for today and

for tomorrow. The inquisitive minds needs to work on these creative areas with education at an early stage, so that it culminates to bring visible and sustained changes for good of nation and for all humanity.

Education must lead to nation building, “*What the nation wants is pluck and scientific genius. We want great spirit, tremendous energy, and boundless enthusiasm. A nation is advanced in proportion as education & intelligence spread among the masses*”. -Swamy Vivekananda. Implementation of NEP aligned with nation building would establish an energetic and vibrant knowledge society.

The NEP while facilitating extensive use of technology in teaching and learning stresses on removing language barriers and on planning of education management systems it also encourages innovation, out of the box ideas. The systemic shift to autonomy, empowerment and good governance would bring transformation in the teaching learning processes.

*“The NEP will bring about fundamental changes in the education set up from pre-nursery to PhD (research), as the need of the hour is for a multi-dimensional approach to become globally competitive and locally productive,”* PM Modi said. (ETGovernment.com, October 19, 2020)

The stress on research and innovation in NEP signifies the importance of both these elements for bringing change into our lives for betterment. The schools, universities and organisations need to engage themselves in inculcating the atmospheres of research in our education system and invigorate innovative practices to keep up these objectives and goals.

NEP was much needed as, ‘The studies show that India was much better at the time of independence in education sector. *Today’s youth lack skills which are marketable.....the colleges need to supplement their courses with vocational training, innovation and employability skills*’. (www.iouedu.com)

Today’s generation is very much at ease with new communication technologies: online, collaborative technologies and much more than the immediate earlier generations. Today’s young people—“digital natives”, are growing up in an immersive computing/digital environment. Notebook and pen may have formed the tool kit of prior generations, today’s students come to classes armed with smart phones, laptops and iPods to take down notes and instructions. This era of pervasive technology has significant implications for higher education. Skills today need to be institutionalised and given at early ages.

The creative minds lead to innovation and innovation comes from free and empowered atmosphere and environment of education. Innovation can be incorporated through various manners and ways into our educational systems.

*“The research and innovation investment in India is at current time, only 0.69% of GDP as compared to 2.8% in USA , 4.3% in Israel and 4.2 % in South Korea.”* (Source: <https://www.opindia.com/2020/09/nep-2020-modi-govt-conceptualised-new->

paradigm-higher-education/)

To deal with the major challenges which India faces in today’s time such as healthcare, quality education, sanitation etc. a topnotch science and technology interventions along with innovation are required.

Creativity, Research and Innovation in NEP:

**1. Transformative cutting edge initiatives:**

NEP emphasising more on learning than studying; looking beyond the laid down structures and indulging in new areas of research would lead to transformation and create innovation. Out of the box thinking and lateral thinking leads to disruptive initiatives. Search of new areas, the niche areas for research and innovation are important. Rote learning is to be replaced with holistic learning that aims to enhance the foundational numeracy and literacy, life skills, cognitive, social and emotional development of a child with emphasis on vocational training at school and college levels. Summative assessments are to be replaced with formative assessments. A national repository of high quality resources on foundation of literacy and numeracy is to be made available through DIKSHA (Digital Infrastructure for knowledge Sharing) to bridge the language barriers. Mathematics and computational thinking at formative stages will bring innovation related to AI. Also, high quality translation with technology is going to be introduced to develop books in local and Indian languages to be made available at school and public libraries. Professional technical education in various fields to get a boost at higher education. An autonomous body, the National Education Technology Forum (NETF) will provide a Platform for the free exchange of ideas to enhance planning, administration, assessment and learning at school and higher education levels. NEP will focus on competency based education to meet the learning outcomes. The scope of open and distance learning in schools through NIOS is also going to be expanded. Vocational education got a boost. It is proposed in the National Education Policy that at least 50% of learners shall have exposure to vocational stud-

ies by 2025. Adult education has also got a push.

2. **Always keep mind, eyes and ears open to challenging situations:** Challenging situations on one side give rise to competition and on the other to the competencies. Competition and fight for survival drives the people out of the comfort zones and helps them prove their worth, is another aspect which would result in an innovative spirit. Also, experiential leaning opens the doors for research and innovation. People need to find solutions in their surroundings through applying research and innovative experiments. Higher Education Institutes (HEI) also must focus on creating innovative environments by setting up: incubation centres, technology development centres, centre for frontier areas of research etc. HEI develop specific hand holding mechanisms and competitions for promoting interaction among students and communities. In order to encourage and to catalyse quality research applicability to society NRF in NEP would support outstanding research initiatives at college and University levels through mentoring and funding processes. The policy also recommends certain key initiatives such as content creation, digital repository and dissemination.
3. **Go to basics and to roots :** Go to the fundamental methods to be creative and innovative. It is important to go to the core for basic understanding through research and then innovate. Never ignore the Indian culture of observation and enquiry and seeking solutions. It is this aspect of curiosity which leads to evolvement of history, art, language and culture in any society. Social knowledge and scientific temper finds due emphasis in NEP.
4. **Reinvent:** NEP focuses on revival, reinventing through newer approaches in new environments driven by technology. The existing issues need to be solved by applying innovative learning through the modern tools of gamification, applications (apps), artificial intelligence etc. The stress on regional languages in NEP would lead to reinventing existing knowledge.
5. **Interdisciplinary approach:** Interdiscipli-

nary approach is important to understand knowledge in its totality. The created boundaries of disciplines hinder the spread and insights of different perspectives. NEP fosters on this aspect and offers education beyond set subjects of disciplines and offers various combinations and mutations for study.

6. **Collaborate, communicate, contextualise:** Collaboration leads to correlations through communication, which in turn lays down the path to innovation and success. Knowledge sharing is a big booster for innovation. NEP would allow high performing universities to collaborate as well as, set up campuses in other countries. The top universities of the world will also be encouraged to come to India.
7. **Anticipate:** Education guides us to anticipate and to be prepared for worst of the situations and crises. Clarity and objectivity to go to the causes in any case is important. The ongoing pandemic has taught us the same and highlighted the need for alternative modes of knowledge transmission and knowledge sharing. NEP recognises both the advantages and disadvantages of technology and guides to take preemptive measures before it is too late.
8. **Believing in self for empowerment:** Self empowerment comes from developing and having innovative spirits and temperament. NEP offers enough space in administrative, academic and financial autonomies which would lead to empowerment of faculty. Application of newer teaching methods and research on niche areas would enable them produce quality innovative and creative projects. Freedom to develop curriculum, pedagogy and assessment would also broaden the framework and value of education.
9. **Spiritual aspects:** Never ignore the intuitive power of human brain. Train it on spiritual path to reach to the realms of unknown truths. Spiritual mindset leads to the solutions with no subjectivities and goes beyond the self interests. A free mind is the originator of free and innovative ideas. This in turn leads to progressive and enlightened ap-

proach with true understanding of things and would take nation on a right direction. The stress on scientific temper in NEP is an approach to generate free and logical thinking, which basically emerges from spiritual and objective mindset.

- 10. Innovative and significant areas for research and innovation:** NEP focuses on importance of keeping pace in changing times, especially in education. The newer areas of innovative courses viz Artificial Intelligence, Big data analytics, Data mining, Data Visualisation, Data Journalism, Robotics, Pharmaceutical Engineering, Augmented Reality, Simulation, Cyber Security, Internet of things, Satellite technologies, people management Environmental studies and much more needs to be explored.

### NEP and Ancient Indian Education:

India has a rich tradition of learning and education right from the antiquity. These were handed over from generation to generation either through oral or written medium. The highly esteemed Vedas have come down to us, they existed for nearly 2000 years before they were known in India. The making of man was regarded as an artistic and not a mechanical process. Nalanda was one of the earliest examples of residential-cum-teaching institution which housed thousands of monks devoted to learning, philosophy and meditation. Over 10,000 students including teachers resided and studied at the university. They came from various parts of the world apart from India, Central Asia, China and Korea. Though Nalanda was primarily a Buddhist university its curricula included Hindu scriptures, philosophy and medicine as recorded by Hiuen-Tsang.

*“He who is possessed of supreme knowledge by concentration of mind, must have his senses under control, like spirited steeds controlled by a charioteer.”* says the Katha Upanishad (iii, 6). From the Vedic age downwards the central conception of education of the Indians has been that it is a source of illumination giving us a correct lead in various spheres of life. Knowledge, says one thinker, is the third eye of man, which gives him insight into all affairs and teaches him how to act. (Subhishitaratnasandhoha p. 194). As per classical Indian tradition *“Sa vidya ya vimuktaye”*, (that which liberates us is education).

Learning in India through the ages had been prized and pursued not for its own sake, if we may so put it, but for the sake, and as a part, of religion. (It was sought as the means of self-realization, as the means to the highest end of life, viz., mukti or emancipation. The individual’s supreme duty is thus to achieve his expansion into the Absolute, his self-fulfilment, for he is a potential God, a spark of the Divine. Education must aid in this self-fulfilment, and not in the acquisition of mere objective knowledge. We maintain that education is a liberating force as also an evolutionary force, which enables the individual to rise from mere materiality to superior planes of intellectual and spiritual consciousness. NEP also recognises the importance of freedom in knowledge generation and dissemination.

*“There knowledge called him to her mystic peaks where thought is held in a vast internal sense and feelings swim across a sea of peace and vision climbs beyond the reach of Time”* (Sri Aurobindo, Savitri, p. 299, 1999) Great emphasis needs to be on life-long education and the realization of a learning society. Complete education, for the complete human personality is to be emphasized more and more imperatively. Contemporary problems can be resolved only if human nature is conditioned for mutual goodwill and spontaneous drive for cooperation, which can be ingrained in the human consciousness only through higher education. The urgent need for the creation of a new society which is non-exploitative and non-violent in character, by virtue of the integrated education approaches which help in pushing uninterrupted sustainable human development can be realised through NEP as engrained in Gandhian philosophy of education. NEP focusses on harmonious development of the personality -spiritual, intellectual, moral and physical. It puts emphasis on leaning by experience.

British Sanskrit scholar Arthur Anthony Macdonell (1854-1930) author of ‘A History of Sanskrit Literature’ says *“Some hundreds of years must have been needed for all that is found”* in her culture. The whole aim of education was, for the manifestation of the divinity in men and to touch the highest point of knowledge. And, in order to attain the goal, the whole educational method was based on ‘simple living and high thinking’, pursued all through Indian cultural ethos.

In Indian context the goal of perfection has to be achieved with education which takes the social

being to the ultimate realities beyond societal planes.

‘Education means enabling the mind to find out that ultimate truth which emancipates us from the bondage of the dust and gives us the wealth, not of things but of inner light, not of power but of love, making this truth its own and giving expression to it.’ —Rabindra Nath Tagore

True education cannot be complete if it does not teach us to give back to the society and care for the environment which we live in and to which we owe our living and well-being.

## Conclusion

Today’s knowledge is tomorrow’s ignorance. The greatest enemy of the educated is not ignorance but illusion of knowledge. One needs to be forward looking and not looking forward. So, learn, unlearn and relearn. Dive and discover is the mantra. Develop internal excellence. Engage with self first, explore the unexplored, create and innovate. Innovation is a very important and essential part of teaching learning environment. If we do not innovate, we will stagnate. It is that attitude which provides solution to the ever rising issues and challenges. We cannot confine ourselves to the current knowledge that we have. The ecosystems wherein there is enormous scope for experimenting and implementing newer initiatives for latest knowledge and skills shall only survive and thrive.

NEP is a comprehensive policy aiming to bring overhaul in the education system to transform it to promote innovation. It will encourage students to bring forth unique and creative skills and solutions. According to PM Modi, “the education system for the future required skilling, reskilling and upskilling and the new NEP which has been rolled out is addressing these requirements”. Modi also advised students to work on out of the box ideas, especially in

the area of start-ups for achieving self-reliance (atmanirbhar) in diverse areas. (Source: <https://www.newindianexpress.com/nation/2020/oct/19/skilling-reskilling-and-upskilling-need-of-hour-modi-says-nep-will-make-youths-more-competitive-2212321.html>)

NEP shall prove instrumental in creating better and brighter tomorrow for all and for making India a ‘Global Knowledge Superpower’ of future.

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