

Exploring Creative Insight and Cultivating Higher Order Thinking Skills in Education Reform - A NEP 2020 Research Perspective

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Abstract

The National Education Policy (NEP) 2020 is a transformative force reshaping education in our nation. In the research paper titled "Beyond Boundaries: Exploring Creative Insight and Cultivating Higher Order Thinking Skills in Education Reform - A NEP 2020 Research Perspective," the profound changes introduced by NEP 2020 are critically examined. The policy serves as a guiding beacon, propelling education beyond traditional boundaries. Central to this transformation is the emphasis on creative insight and higher-order thinking skills. NEP 2020 recognizes these as dynamic forces capable of revolutionizing pedagogical approaches, curriculum design, and student engagement. Departing from rote memorization and standardized testing, the policy advocates for a nuanced and adaptive educational approach, nurturing creativity and fostering advanced cognitive processes (Chatterjee and Chakraborty, 2021). The paper delves into the intricate layers of NEP 2020, focusing on the interconnected themes of creative insight and higher-order thinking skills. It not only scrutinizes the policy's provisions but also examines real-world implementations, drawing insights from successful case studies. The goal is to envision the future of education, propelled by NEP 2020, as a holistic reimagining of the educational landscape. "Beyond Boundaries" beckons educators, policymakers, and stakeholders to transcend conventional education. The paper invites readers to explore a horizon where creative insight and higher-order thinking converge to shape learners equipped not only with knowledge but also with the ability to innovate, question, and navigate the complexities of an ever-evolving world. The NEP 2020 Research Perspective seeks to inspire, inform, and propel the discourse on education into uncharted territories, where the limitless potential of creative insight and higher-order thinking skills unfolds.

Keywords: NEP 2020, Creative Insight, Higher order Thinking Skills, Critical Thinking.

Introduction

The National Education Policy (NEP) 2020 marks a significant milestone in India's education system, aiming to foster innovation, creativity, and critical thinking among students. With its emphasis on holistic, flexible, multidisciplinary education and a departure from rote learning, NEP 2020 is heralded as a progressive reform that seeks to align the Indian education system with global standards. However, while the policy presents a promising vision, it also faces several challenges in implementation.

One of the primary concerns is the diverse and unequal educational landscape across India. Implementing NEP 2020 uniformly across rural and urban settings, government and private institutions, and varying levels of resource availability poses a significant challenge. Educators

have raised concerns about the feasibility of this policy, especially in under-resourced areas where the infrastructure and teacher training required for innovative pedagogical practices may be lacking (Gupta & Singh, 2021).

Furthermore, while NEP 2020 advocates for a shift from traditional rote learning methods to fostering higher-order thinking skills, the transition may not be seamless. There is apprehension among educators about the readiness of the current education system to adopt such drastic changes, particularly without sufficient groundwork in teacher training and curriculum development. The policy's success will heavily depend on addressing these concerns and ensuring that the necessary support structures are in place (Das & Choudhury, 2020).

Moreover, certain areas within NEP 2020 may require further development and refinement. For instance, while the policy promotes the integration of technology in education, the digital divide in India could exacerbate existing inequalities. Ensuring equitable access to digital resources and training for both students and teachers will be crucial to realizing the policy's goals (Sharma & Verma, 2020).

Swami Vivekananda's perspective underscores the transformative power of education in national development but does not specifically address innovation as understood in the context of NEP 2020. His emphasis on the spirit and enthusiasm required for national progress aligns with NEP's goals of creating a dynamic knowledge society. The focus of NEP 2020 on technology and educational reform resonates with Vivekananda's broader vision of educational empowerment. Putting NEP into practice in line with nation-building would create a dynamic knowledge society. In addition to supporting the widespread use of technology in education, the NEP places a strong emphasis on eradicating language barriers and organizing educational administration systems. It also promotes creativity and unconventional thinking. The teaching and learning processes would change as a result of the systemic movement towards autonomy, empowerment, and good governance.

"The NEP will bring about fundamental changes in the education setup from pre-nursery to research, as the need of the hour is for a multi-dimensional approach to become globally competitive and locally productive," PM Modi (2020). NEP places a strong emphasis on innovation and research, highlighting the significance of these two components in transforming our lives for the better. To maintain these aims and objectives, institutions of higher learning, organizations, and schools must actively foster a culture of research in our educational system and encourage creative thinking (Agarwal & Agarwal, 2021).

In order to analyze the connection between NEP 2020 and the fostering of innovation, this paper employs a mixed-methods approach. Quantitative data will be gathered through surveys

and standardized assessments administered to students and educators across various educational institutions implementing NEP 2020. This data will help measure the extent to which innovative practices, such as higher-order thinking and creative insight, have been integrated into the curriculum.

Additionally, qualitative insights will be obtained through interviews and focus group discussions with educators, policymakers, and students. These qualitative methods will provide a deeper understanding of the challenges and successes encountered during the implementation of NEP 2020, as well as the perceptions of those directly involved in the educational process. The combination of quantitative and qualitative data will allow for a comprehensive analysis of how NEP 2020 influences innovation in education. By triangulating these data sources, the research aims to present a well-rounded perspective on the policy's impact, enhancing the credibility and robustness of the findings.

In summary, while NEP 2020 offers a visionary approach to reforming India's education system, its implementation will require careful consideration of the challenges and concerns raised by educators. By addressing these issues, the policy can truly transform the educational landscape and fulfill its promise of fostering innovation and creativity in the coming generations.

The open and empowered culture and educational environment foster the creative brains that lead to innovation. There are several ways that we might integrate innovation into our educational institutions. According to Singh (2021) "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".

Modern India has several key issues, including those related to healthcare, education, sanitation, and other areas requiring innovative solutions in addition to top-notch science and technology (Agarwal & Agarwal, 2021).

Highlights of Higher order thinking skills and Creative Insight skills in NEP 2020

The development of each person's creative potential is given special attention in education policy. It is predicated on the idea that education has to foster social, ethical, and emotional aptitudes in addition to cognitive abilities, including "higher-order" cognitive abilities like critical thinking and problem solving and the "foundational capacities" of literacy and numeracy. (Pg 4 NEP 2020)

The core ideas that will direct the entire educational system as well as specific institutions are creativity and critical thinking, which promote rational decision-making and innovation. (Pg 5 NEP 2020)

NEP 2020 prioritizes the development of higher-order thinking skills and creative insight. It advocates for a shift towards inquiry-based, holistic learning, aiming to reduce rote memorization and enhance critical thinking and problem-solving abilities. The curriculum is designed to focus on essential elements that encourage interactive, exploratory, and collaborative learning (NEP 2020, Sections 4.5)

The policy emphasizes an interdisciplinary approach and the integration of vocational training with academic education. By combining STEM with the humanities and arts, NEP 2020 aims to foster well-rounded education that enhances creativity, innovation, and practical skills. This approach is intended to improve learning outcomes and better prepare students for future challenges (NEP 2020, Section 11.2)

Elevating Higher Order Thinking, Creative Insight in Research and Innovation

Innovative and transformative projects:

NEP places more of an emphasis on learning than on studying; by stepping outside of established frameworks and exploring uncharted territory, research can be both innovative and transformative (See fig. 1.). Innovative and creative ideas give rise to disruptive initiatives (Facione, 2011).

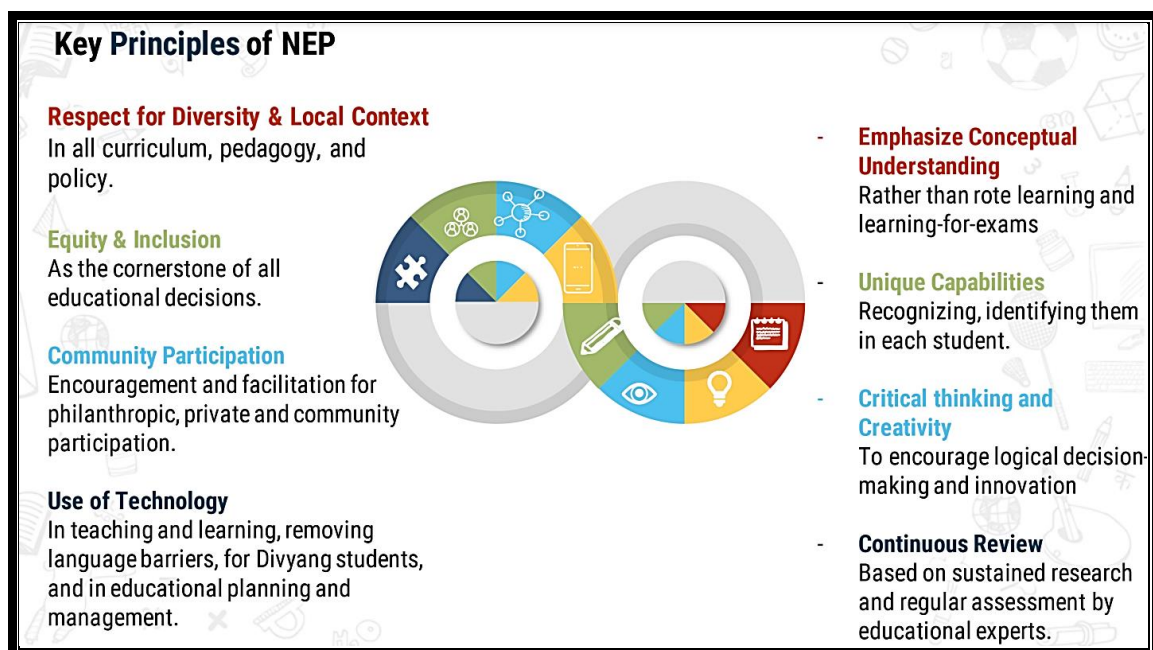


Fig. 1. Principles of NEP- 2020

Finding new fields and specialised areas for study and invention is crucial. Holistic learning, which places a focus on vocational training at the high school and college levels, will take the role of rote learning in order to improve a child's life skills, cognitive, social, and emotional development, as well as their foundational literacy and numeracy. Formative evaluations are to take the place of summative ones. To overcome linguistic obstacles, DIKSHA (Digital Infrastructure for Knowledge Sharing) will provide a nationwide repository of excellent resources on the foundation of literacy and numeracy. Innovation in AI will come from early phases of mathematics and computational reasoning. In addition, literature in the local and Indian languages will be developed and made available in public libraries and schools through the use of high-quality translation technology. Gain experience in a variety of fields with professional technical education to advance in higher education (Sharma and Kapoor, 2018). In order to improve planning, administration, assessment, and learning at the school and postsecondary education levels, the National Education Technology Forum (NETF), an independent organisation, will offer a forum for the open exchange of ideas. NEP will prioritise competency-based instruction in order to achieve the learning objectives. Additionally, the reach of distant and open learning in schools via NIO will grow. Vocational training experienced growth. The National Education Policy suggests that by 2025, a minimum of 50% of students should be exposed to vocational studies. There is also a push for adult education.

Remain alert and aware of difficult circumstances at all times:

Competitive environments foster competencies on the one hand and rivalry on the other. An inventive spirit can also be produced by competition and the struggle for existence, which push people outside of their comfort zones and enable them to demonstrate their value. People must use creative experimentation and investigation to uncover answers in their environment.

According to Gupta and Chakraborty (2023), Higher education institutions (HEI) also need to concentrate on developing innovative environments by establishing centres for frontier research, technology development centres, and incubators, among other things. In order to encourage contact between students and communities, HEI creates unique hand holding methods and competitions. Through funding and mentorship programmes, NRF in NEP would support exceptional research efforts at the college and university levels in an effort to promote and accelerate high-quality research with social relevance. Additionally, the policy suggests a number of important projects, including content creation, digital repositories, and dissemination.

Return to your roots and your basics:

Examine the foundational techniques for being inventive and creative. It's critical to conduct study to have a fundamental understanding before innovating. Never disregard the Indian tradition of making observations, asking questions, and looking for answers. In all community, the evolution of history, art, language, and culture is a result of this curious nature. In NEP, social knowledge and scientific temper are given the appropriate weight.

Reinvent:

NEP focuses on resurrection, reimagining in technologically driven new environments using fresher ways. The current problems must be resolved by implementing creative learning using contemporary techniques like artificial intelligence, gamification, and applications (apps). The NEP's emphasis on regional languages would cause current knowledge to be reinvented.

Interdisciplinary approach:

Understanding knowledge as a whole requires an interdisciplinary approach. Discipline boundaries that have been established obstruct the dissemination of diverse viewpoints and views. NEP focuses on this feature, provides instruction outside discipline-specific areas, and allows for a variety of study combinations and modifications (Singh and Kapoor, 2021).

Collaborate, communicate, contextualise:

Working together creates connections through communication, which paves the way for success and innovation. The exchange of knowledge greatly fosters innovation. High-achieving institutions would be able to work together and open campuses abroad thanks to NEP. There will also be an encouragement for the world's best universities to visit India.

Anticipate:

Education teaches us to anticipate and be ready for life's most difficult circumstances and emergencies. In any situation, it's critical to be objective and clear in determining the root issues. We have learned the same lesson from the continuing pandemic, which has also brought attention to the necessity for alternate channels for exchanging and transmitting knowledge. NEP acknowledges the benefits and drawbacks of technology and advises taking preventative action before it's too late (Narayan et al., 2023).

Having self-belief to empower oneself:

Developing and possessing an inventive spirit and temperament are the sources of self-empowerment. NEP provides ample room for academic, administrative, and financial autonomy, which would empower professors. They could develop excellent, imaginative, and creative products if they used more recent teaching techniques and conducted study in

specialised fields. The structure and purpose of education would be expanded by having the freedom to create curriculum, pedagogy, and assessment methods (Joshi and Kumar, 2022).

Spiritual aspects:

Never discount the human brain's capacity for intuition. Put it on a spiritual path to explore the domain of undiscovered truths. A spiritual perspective solves problems objectively and transcends self-interest. Creative and original thoughts come from a free mind. This would then set the country on the correct path and result in a progressive, enlightened approach with a true grasp of things. The NEP places a strong emphasis on scientific temper as a means of producing independent and reasoned thought, which essentially results from an objective and spiritual worldview.

Novel and important fields for investigation and creativity:

Mishra and Singh, (2023) stated that NEP emphasises how critical it is to adapt to the changing times, particularly in education. It is necessary to investigate the more recent fields of innovative courses, such as robotics, pharmaceutical engineering, augmented reality, simulation, cyber security, internet of things, satellite technologies, people management, environmental studies, big data analytics, data mining, data visualisation, data journalism, and robotics.

NEP 2020 and India's Educational Heritage

India has a long history of education dating back thousands of years. These were passed down orally or in writing from generation to generation (Singh, 2018). The revered Vedas have been passed down to us; they were known in India about 2,000 years before they were created. It was believed that the process of creating man was artistic rather than mechanical. Thousands of monks committed to study, philosophy, and meditation were housed at Nalanda, one of the first residential-cum-teaching institutions. The university was home to about 10,000 residents and students, including teachers. Except from China, Korea, India, and Central Asia, they were from all around the world. Hiuen-Tsang records that although Nalanda was essentially a Buddhist university, its curricula encompassed Hindu scriptures, philosophy, and medicine. According to the Katha Upanishad (iii, 6), "He who is possessed of supreme knowledge by concentration of mind, must have his senses under control, like spirited steeds controlled by a charitoteer." Indian education has always been based on the fundamental belief that it provides illumination and appropriate guidance in all aspects of life, dating back to the Vedic era. According to one philosopher, knowledge is man's third eye, providing him with insight into all situations and teaching him how to behave.

(Page 194, Subhishitaratnasandhoha). According to the ancient Indian saying, "Sa vidya ya vimuktaye" (knowledge is the means by which we are set free). Throughout history, education has been valued and sought after in India, but not for its own purpose; rather, it has been a component of religion.

(It was pursued as a path to mukti, or emancipation, the ultimate goal in life, and as a way of self-realization. Hence, the individual's highest responsibility is to realise his or her self-fulfilment and expansion into the Absolute, since they are divine sparks and potential gods. Education should support this self-fulfilment rather than just imparting external knowledge (Smith, 2017).

We contend that education is both an evolutionary and a liberating force that lifts people up from lower states of material consciousness to higher states of intellectual and spiritual awareness. NEP acknowledges the value of freedom in the creation and exchange of knowledge. "There knowledge called him to her mystic peaks where feeling swims across a sea of peace and vision climbs beyond the reach of Time, where thought is held in a vast internal sense" (Sri Aurobindo, Savitri, p. 299, 1999) The realisation of a learning society and lifelong learning must receive a lot of attention. More and more imperatively, complete education is needed to emphasise the entirety of the human psyche. Only until human nature is conditioned for reciprocal goodwill and an innate impulse for cooperation—conditions that can only be established in human consciousness via higher education—will contemporary challenges be overcome (Sharma and Singh, 2021). NEP, which is ingrained in the Gandhian philosophy of education, can assist realise the urgent need for the construction of a new society that is non-exploitative and non-violent in character due to integrated education techniques that support uninterrupted sustainable human growth. The goal of NEP is the harmonious development of the individual's moral, intellectual, spiritual, and physical qualities. It emphasises learning through experience (Kumar and Kapoor, 2019).

Author of "A History of Sanskrit Literature," British Sanskrit scholar Arthur Anthony Macdonell (1854–1930), states that "some hundreds of years must have been needed for all that is found" in her culture. The ultimate goal of education was to elevate humankind to the pinnacle of knowledge and to manifest divinity in them. Additionally, the entire educational approach was built on the Indian cultural ideal of "simple living and high thinking" in order to achieve the goal. In the Indian framework, education—which elevates the social being to ultimate realities beyond societal planes—is the means by which perfection is to be attained.

The definition of education is "*enabling the mind to discover that ultimate truth which sets us free from the bonds of the dust and bestows upon us wealth, not of material possessions but of*

inner light, power, and love, giving expression to this truth and making it its own."

Rabindranath Tagore. If we are not taught to contribute to society and take care of the environment we live in, which is what gives us our life and well-being, then no education is truly complete.

Conclusion

Knowledge evolves constantly, and today's understanding can become outdated tomorrow. The greatest challenge for the learned is not ignorance itself but the illusion of complete knowledge. It is essential to continually seek new knowledge, explore the unknown, and foster innovation. Embracing this mindset where acquiring, unlearning, and re-learning is a continuous process ensures that we do not stagnate but instead thrive through innovation and creativity.

NEP 2020 is a comprehensive policy designed to overhaul India's educational system to foster innovation and creativity. It aims to inspire students to develop original and imaginative skills by creating an environment that supports experimentation and interdisciplinary learning. Addressing challenges such as infrastructure and teacher training is crucial for the policy's success. By doing so, NEP 2020 aspires to position India as a global leader in knowledge and education. The policy's focus on holistic and innovative education is vital for shaping a brighter future and advancing India's status as a "Global Knowledge Superpower."

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