# NEP (2020) in the Light of Education 5.0

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## Abstract

National Education Policy or NEP is the current policy of education in India. It came in the history of India's educational system on 29th July, 2020 after 34 years of National Policy of Education (1986). The 34 years gap between the last policy and the current education policy gave birth to an entire new educational system. The expectations from the educational system evolved a lot during the gap period. During late 90s, we were basically at Education 1.0 and adjusting within Education 2.0 model but now we have achieved Education 3.0, working on Education 4.0 and preparing to move towards Education 5.0 in future. Policies are always important to act as a cornerstone on which educational system is built and do follow educational models. Hence, this paper tries to analyse the different education policies in the light of education models. This will help us to analyse the thrust of the National Education Policy (2020) in terms of Education 5.0 model.

*Keywords*: NEP (2020), NPE (1986), NPE (1968), education 1.0, education 2.0, education 3.0, education 4.0, education 5.0

## Introduction

"Education is the most powerful weapon which you can use to change the world"-Nelson Mandela

Education is a powerful tool for the development of the world. It is fundamental for national prosperity through economic growth and scientific development. It helps to create a society of responsible and intelligent citizens, who can build an equitable and inclusive society. It provides a meaning to life and also become a means of personality development (Psacharopoulos, 2018).

Education policies play a critical role in shaping the education system of a country and determining the quality and accessibility of education for all individuals. They ensure that all children have access to quality education in a country. Education policies set clear goals and objectives to improve the standards of education (Haddad, 2013). The different policies in India are time-lined with different models of education, owing to the industrial revolution. Starting with National policy of education (1968) which came in late 60s, the use of technology in education was negligible. It was mainly a period of social and cultural change. It did not see an industrial revolution in education but prepared a ground for the future use of technology in education.

## National Policy of Education (1986) and Education 1.0

In the late 1990s, the educational system was one-way where knowledge was transferred from the teacher to the learner. It was based on 3Rs: receiving, responding and regurgitation. Learners were the receptors and responders of educational system and were expected to regurgitate through exams. Primary focus was on rote learning (Smith & Jones, 2012). Learners use to memorize only and did not focus on understanding the concepts (Lee & Kim, 2020). The reason was the educational system, which was quite boring and heavy, and students were passive learners only. The use of technology and innovation was very less. Technology was used in education in the form of CDs, television and radio programmes only. Internet service was not available in India till 1995, when it was launched for the first time in the country through Videsh

Sanchar Nigam Limited (VSNL). Teacher and books were the only resources available to learn (Brown & Miller, 2015). Visiting libraries to study through books was the key to success. Child was not able to learn at its own pace from home. This was the phase of education 1.0. model. When National policy of education (1986) was launched, it focussed on expanding the AIR (All India Radio) educational programmes for primary and secondary school students because radio than television was easily available with the common population. Centre of Educational Technology was set up in the National council of educational research and training (NCERT) to promote the use of technology in education. NPE (1986) talked about the "Integration of computer education modules in professional and general degree courses at degree level and provision of computer facilities to these institutions". The Education 1.0 model was marked by the minimal use of technology in education. Technology was in the form of CDs, Radio and television. Internet facility was launched after 10 years of NPE (1986). The Fast technological advancements gave rise to industry revolution 2.0 which in turn moved the system to education 2.0.

## Education 2.0, 3.0 and 4.0

It is necessary to understand the middle transformational models of education before discussing Education 5.0. By the year 2000, Education 2.0 brought technology in the classroom in the form of computers, videos and animations through which classes became interactive and engaging (Johnson & Smith, 2010). There was a shift from rote learning to active and collaborative learning. Use of overhead projectors, power point presentations created the scope for creativity. The traditional classrooms became more enjoyable (Lee & Kim, 2019). Through internet, education was accessible to all regardless of location and socio-economic background. Students were able to learn at their own pace from sources other than the classroom teaching.

MOOCs and Online courses were launched. The main shortcoming of Education 2.0 was that technology was not fully integrated with the education system. It was an option to be used or not. Teacher was still the primary source of information and collaborative learning was still limited. Education 3.0 was much advanced than education 2.0. During Education 3.0, technology was fully integrated with the education system. The recent pandemic Covid-19 played an important role in bringing the society towards Education 3.0. The reason being the shutdown of schools, colleges and universities. The only option left during pandemic was to fully adopt the technology in teaching-learning process. Online classes became a norm. Learning was personalized and became student-centred (Thomas & Brown, 2011). The critical thinking, creativity and problem-solving skills started improving through collaboration and teamwork. Social media and you-tube became popular platforms for learning (Brown & Jones, 2013). The main shortcoming of this model was that, despite the fully integration of technology in education, the opportunities for personalization were still limited. Due to covid-19 and lockdown in the world many students and teachers faced mental stress, isolation and issues related to general well-being which were not being addressed in education3.0. Another shortcoming was, advanced technology like artificial intelligence in education was not available in India.

Few years after the pandemic is over, during the year 2022, the advanced technologies like artificial intelligence, virtual and augmented reality were introduced in India. Artificial intelligence in the form of ChatGPT has now become very popular among student and teachers. The reason being the learning experiences are much more enhanced by the use of AI. virtual and augmented reality is mostly used by the corporate sector and private companies to stimulate the real-world under controlled environment to provide immersive hands-on experiences, for example online shopping sites.  In Education 4.0, with the introduction of gamification in education, teaching of complex and abstract concepts of science and other subjects can become

easy (Almarashdeh & Dabaj, 2018). But, Currently, the facilities for VR and AR are not widely available in Indian education system. At present, Indian educational system is coping to adjust itself with Education 4.0.

## Education 5.0

The fifth wave of industrial revolution is going through the world and hence, the movement towards education 5.0, latest version of educational models has already started. In India, education 5.0 can be called be the future of education. Many developed countries like Saudi Arabia and Malaysia have already adopted this version of education in their educational system. Education 5.0 is the most refined version of the previous models as it also focusses on the humanized aspect in consonance with the technology so that learner's needs and preferences are fulfilled, stressing upon personalized leaching. Education 5.0 represents the new phase of evolution in the field of education. Education 5.0 specially focusses on personalized learning i.e learner centric education but with special emphasis on social and emotional intelligence. In this version, the Artificial Intelligence (AI), internet, virtual and augmented reality and other technological tools are seen as a source for social transformation and this transformation tries to create a society of intelligent people who do not act as machines but as socially responsible humans. Education 5.0 focusses on out-come based education. It tries to bring the education to reality i.e learners get a chance to experiment and experience knowledge. According to it, there should not be gap between theory and practical life. The education should cover all spheres of life and human beings and they must be emotionally and socially aware of it. The main aim of education 5.0 is the overall or holistic development of humans. If we can relate, the education 5.0 is the outgrowth of education 4.0. The only difference being the focussed addition of humanized education because education 4.0 heavy relies on the use of technology and very less on human

interaction. The education 5.0 adds human perspective to learning so that it becomes helpful in solving future problems like promotion of health and safety and conservation of environment. This is possible only when learners collaborate and focus on interpersonal relationship with each other. It also welcomes creativity and tolerance. It's a future of learning. The ultimate goal is to create an efficient, effective and equitable education system that can adapt to the changing needs of the society (Ahmed, et.al,2023).

Education 5.0 directly connects to society 5.0 and is complementary to it as it nurtures critical thinking, problem solving and creativity. The holistic development of learners is the aim of education 5.0. It sees society as the one which is not just have cognitively skilled individuals but also emotionally intelligent and socially aware individuals. It believes that social awareness is required to solve human problems and promote happiness in the society.

## National Education Policy and Education 5.0

### Focus of National Education Policy 2020

The previous policies in education like NPE (1968) and NPE (1986) tried to vision education with or upto education 1.0 only but the recent policy in education which came after 34 years of the NPE (1986) brought a clear vision for transforming India through education 5.0.

The NEP (2020) focusses on education which is "less content and more towards learning about how to think critically and solve problems, how to be creative and multidisciplinary and how to innovate, adapt and absorb new material in novel and changing fields".

The policy specially focusses on extensive use of technology in teaching and learning, removing language barriers and educational planning and management. It looks pedagogy as more experiential, holistic, integrated, learner centred, flexible as well as enjoyable.

It says "Education must develop not only cognitive capacities-both 'foundational' and

'higher-order 'such as critical thinking and problem solving-but also social, ethical, and emotional capacities and dispositions" (NEP, 2020, page no 4).

According to NEP (2020), the fundamental principles that must guide the education system at large and in line with education 5.0 are:

1. Extensive use of technology in education.

2. Recognition, identification and fostering the unique capabilities of each student by sensitizing teachers as well as parents to promote each student's holistic development in both academic and non-academic spheres.

3. Flexibility so that learners learn at their own pace.

4. Multidisciplinary and holistic education of learners.

5. Focus on creativity and critical thinking among learners.

6. Focus on 21st century skills such as communication, cooperation and teamwork.

The policy focusses on digital infrastructure which remain updated with the latest trends and advancement. It talks about creation of virtual labs with existing learning platforms like DIKSHA, SWAYAM and SWAYAM PRABHA. Augmented and virtual reality-based programmes are expected to be developed in educational field with gamification in Indian art and culture in multiple languages. National educational technology forum (NETF) will be set up in the coming years to set up standards of technology-based teaching learning platforms.

The vision of NEP 2020 is to bring a vibrant and knowledgeable society through providing high quality education to all through education 5.0. One can observe that, apart from the use and integration of technology in education the national education policy is more focussed towards creating a more humanized society.

According to National education policy (2020) "The vision is to instil in learners a profound pride in being Indian, evident not only in their thoughts but also in their actions and

intellect. The policy seeks to develop amongst students' knowledge, skills, values, and attitudes that promote responsible commitment to human rights, sustainable living, and global well-being, making them true global citizens".

## Discussion

Education 5.0 is composed of two domains; one is the use of advanced technology to enhance the personalized learning experiences of learners and the second is preparing humanized learners who are not just information or technology rich machines but able to work as humane society collectively and efficiently for the changing needs of the society. The aim is "Judicious use of technology so that it is beneficial for human life". If we analyse National education policy (2020), it visualizes the future India on the highlights of education 5.0 as it not just talks about the integration of advanced technology in education but the preparation of "equitable and vibrant knowledge society and thereby making India a global knowledge society". The vision is sustainable development and living, global well-being and preparation of a truly global citizens. But the question arises here is, do we have already adopted education 4.0 model successfully or gained success to implement it all over the country? The answer is NO. because the concept of education 4.0 is still new for a developing country like India. We can think of education 5.0, once we are successful achieving education 4.0. Let us reflect on the challenges in the implementation of education 5.0 in our country. First and foremost reason is, we are not ready to adopt education 4.0 yet, once we reach there then we can think about education 5.0. Secondly, the cost of creation of technology like AI, virtual and augmented reality tools is very high. The budget allocation in India on education is not so high as compared to other countries. Its only 2.9 percent of GDP whereas in other countries like US and UK it is 6 and 4.2 percent of GDP (British council, n.d). If the allocated budget could be increased from 2.9 to at least 5 then the creation and implementation of technological tools will become much easy. Not just creation but

updating of technologies over time require funds. Thirdly, a difficult challenge to implement education 5.0 in India is digital divide among urban and rural population. Out of the total India's population 68.8 percent lives in rural areas which is 2-3rd of the total population. According to India inequality report (2022): digital divide, only 31 percent of the rural population uses the internet compared to 67 percent of the urban counterparts (Sharm & Maheshwari,2017). Also, the people living in remote areas face connectivity issues from rest of the world. Due to the digital divide, it becomes very difficult to provide equal access to technology to all the learners. Another challenge is, English language barrier. In Indian constitution, officially there are 22 Indian languages. There is diversity of mother tongue. English is not the dominant language in India (Jha, 2017). Despite translations and presenting content in mother language, majority of content present on internet and AI tools are in English language. Due to which most of the learners find it difficult to learn from such content and feel demotivated. As a result, it becomes difficult for non-English background students to get benefitted from online resources and they step back. Teachers are an important element of educational system. Education 5.0 do not discard the role of teacher in learning. It stresses on the importance of role of the teacher as resource specialist, support person, mentor as well as a learner. In education 5.0, there is orchestration of technology in the classroom, there is AI based smart Grading and supervision technologies. There is a need of trained teachers who are competent enough to use the advanced technology as well as in providing 21 century skills among learners without which the aim of education5.0 can't be fulfilled (Singh,2023). Another issue with teachers in a country like India is the resistance to change. Most of the time, despite having resources, the teachers do not show positive behaviour towards the change and continue to use traditional pedagogy methods like lecture method (Darling-Hammond, 2017). `

In a country like India, privacy and security is a big issue because of corruption and

illegal activities. On one hand, Cyberattacks and data breaches are very common. On the other hand, education 5.0 propagates the agenda of privacy and security of data of learners. It says that data of learners should not be shared with anyone and kept private. In India, in 2023 there were around 2138 weekly cyber-attacks per organization which increased about 15 percent from 2022 (Jain, 2024). Hence, the question of privacy and security becomes a big challenge. Last but not the least, technology requires internet and internet requires speed. High speed internet is essential for fastest delivery of digital resources. The collaboration and communication become easier with faster internet especially the remote area learners. Williamson (2019) found that high speed networks have a significant positive impact on quality of education. But in a country like India, in the era of 5g internet, in many states like Madhya Pradesh, Bihar and Jharkhand the remote areas have 2g network speed only, which is a barrier to education.

## References

Ahmad, S. (2023). Education 5.0: Requirements, enabling technologies, and future directions. arXiv.org. https://arxiv.org/abs/2307.15846

Almarashdeh, I., & Dabaj, F. (2018). Education 4.0: A New Paradigm for Learning. International Journal of Advanced Computer Science and Applications, 9(8), 59-63.

Ananiadou, K., & Claro, M. (2009). 21st Century Skills and Competences for New Millennium Learners in OECD Countries. OECD Education Working Papers, No. 41, OECD Publishing. https://doi.org/10.1787/218525261154

Brown, L., & Jones, C. (2013). Collaboration and communication in Education 2.0: A case study analysis. Journal of Educational Technology & Society, 16(3), 127-139.

Brown, L., & Miller, K. (2015). The role of the teacher in Education 1.0: A comparative analysis. International Journal of Educational Studies, 3(2), 45-58.

Darling-Hammond, L. (2017). Teacher education around the world: What can we learn from international practice? European Journal of Teacher Education, 40(3), 291-309.

Haddad, W. D. (2013). Education policy-making in developing countries. International Journal of Educational Development, 33(5), 453-455.

India Inequality Report 2022: Digital Divide | Oxfam India. (n.d.). Oxfam India(OIN). https://www.oxfamindia.org/knowledgehub/workingpaper/india-inequality-report-2022-digital-divide

India's National Education Budget for 2023-24 | British Council. (n.d.). https://opportunities-insight.britishcouncil.org/blog/india%E2%80%99s-national-education-budget-2023-24#:~:text=According%20to%20India's%20latest%20Economic,for%20the%20last%20four%20years.

Jain, B. (2024, January 4). India saw 129 cybercrimes per lakh population in 2023. The Times of India. https://timesofindia.indiatimes.com/india/india-saw-129-cybercrimes-per-lakh-population-in-2023/articleshow/106524847.cms

Jha, P. (2017). The myth of English as an official language in India. Economic and Political Weekly, 52(45), 30-31.

Johnson, M., & Smith, A. (2010). The impact of technology integration on student engagement in Education 2.0. Computers & Education, 55(2), 342-360.

Lee, S., & Kim, D. (2019). The role of the teacher in Education 2.0: A comparative study of pedagogical practices. Teaching and Teacher Education, 75, 245-257.

Lee, S., & Kim, D. (2020). The impact of Education 1.0 on student creativity: A case study. Creativity Research Journal, 42(3), 345-358.

Mhrd. (2020). National education policy 2020. https://www.education.gov.in/sites/upload_files/mhrd/files/NEP_Final_English_0.pdf

Psacharopoulos, G. (2018). Education as a Development Tool. In G. Psacharopoulos (Ed.), Education Policy: Globalization, Citizenship and Human Rights (pp. 95-118). Springer.

Sharma, R. C., & Maheshwari, S. (2017). Bridging the Digital Divide: A Study on ICT Penetration and Internet Usage in India. Journal of Global Information Management (JGIM), 25(4), 93-110.

Singh, R.J. (2023). Issues in teacher education in India. International journal of multidisciplinary research in arts, science and technology,1(2),11-17.

Singh, R., & Chawla, M. (2018). Cybersecurity in India: Challenges and Solutions. Journal of Advances in Management Research, 15(3), 277-289.

Smith, B., & Jones, C. (2012). Rote learning in the classroom: A review of the literature. Educational Research Review, 7(1), 123-135.

Thomas, D., & Brown, J. S. (2011). A new culture of learning: Cultivating the imagination for a world of constant change. CreateSpace Independent Publishing Platform.

Williamson, B. (2019). Policy networks, performance metrics and platform markets: charting the expanding data infrastructure of higher education. British journal of educational technology,50(6),2794-2809.