

A Comparative Analysis of E-Learning's Influence on the National Education Policy 2020 and the National Policy on Education 1986 in the Context of Technological Advancements.

¹Ratnartuh Mishra¹, Neeraj Kumar Tiwari², Sandeep Kumar Nayak³, Ravindra Nath⁴, Shankar K Lal⁵, Priya Tewari⁶, Khushboo Rawat⁷, Arunesh Kumar Awasthi⁸

¹ Department of Education, Chhatrapati Shahuji Maharaj University, Kanpur 208024, (NAAC A++University), Email ID- ratnartuh@gmail.com

²(Corresponding Author) Department of Information Technology, Babasaheb Bhimrao Ambedkar University (A central University) Satellite Centre, Tikarmafi, Amethi-227413 (NAAC A++University), Email ID- neerajmtech@gmail.com, dr.neeraj@bbau.ac,

³ Department of Information Technology, Babasaheb Bhimrao Ambedkar University (A central University) Satellite Centre, Tikarmafi, Amethi-227413 (NAAC A++University)

⁴ Department of Computer Science, Babasaheb Bhimrao Ambedkar University (A central University) Satellite Centre, Tikarmafi, Amethi-227413 (NAAC A++University),

⁵, Department of Sociology, Babasaheb Bhimrao Ambedkar University (A central University) Satellite Centre, Tikarmafi, Amethi-227413 (NAAC A++University).

⁶ Department of Education, Chhatrapati Shahuji Maharaj University, Kanpur 208024, (NAAC A++University).

⁷ Assistant Professor, Department of Commerce, University of Lucknow, Lucknow 226201, (NAAC A++University).

⁸ Department of Teacher Education, Dayanand Brajendra Swaroop PG College, A Government aided college affiliated to CSJM University, Govind Nagar, Kanpur

How to cite this article: Ratnartuh Mishra, Neeraj Kumar Tiwari, Sandeep Kumar Nayak, Ravindra Nath, Shankar K Lal, Priya Tewari, Khushboo Rawat, Arunesh Kumar Awasthi (2024). A Comparative Analysis of E-Learning's Influence on the National Education Policy 2020 and the National Policy on Education 1986 in the Context of Technological Advancements. *Library Progress International*, 44(3), 12836-12852.

ABSTRACT

Objective:

This study examines the impact of e-learning on India's education system by comparing the National Education Policy (NEP) 2020 and the National Policy on Education 1986 (NPE 1986). The objective is to understand how technological advancements and digital education have influenced educational strategies and outcomes across these two policies.

Methods:

A comparative analysis approach was used to evaluate the key features of NEP 2020 and NPE 1986, focusing on their approaches to technology integration, educational accessibility, and inclusivity. The study relied on policy documents, relevant literature, and educational statistics to assess the impact of e-learning in the context of both policies.

Results:

The analysis reveals that NEP 2020 marks a significant shift towards technology-enhanced learning, with initiatives like DIKSHA and the National Educational Technology Forum (NETF) fostering digital literacy and blended learning models. In contrast, NPE 1986 primarily focused on expanding primary education and vocational training but faced challenges due to inadequate infrastructure and regional disparities. The study finds that NEP 2020's emphasis on e-learning has the potential to address some of these long-standing issues, particularly in terms of accessibility and equity.

Conclusions:

While NEP 2020's technology-driven approach offers promising avenues for reform, it also highlights the critical

Ratnartuh Mishra, Neeraj Kumar Tiwari, Sandeep Kumar Nayak, Ravindra Nath, Shankar K Lal, Priya Tewari, Khushboo Rawat, Arunesh Kumar Awasthi

need to bridge the digital divide to ensure its success. The comparative study underscores the transformative potential of e-learning but also calls for sustained efforts in building robust digital infrastructure and providing comprehensive teacher training.

Significance:

This study contributes to the broader understanding of the evolving role of technology in education and its implications for future educational policies in India.

Keywords:

E-learning, National Education Policy (NEP) 2020, National Policy on Education 1986 (NPE 1986), Digital Education, Educational Reforms.

1. INTRODUCTION

Background and Rationale

The National Education Policy (NEP) 2020 represents a transformative shift in India's educational landscape, emphasizing the crucial role of technology and e-learning in democratizing education. By focusing on accessibility, inclusivity, and relevance to contemporary needs, NEP 2020 aims to reshape education in the country. Key initiatives include the Digital Infrastructure for Education (DIKSHA), which offers a comprehensive platform with interactive content, teacher training, and assessment tools, developed in collaboration with state governments to ensure localized relevance. The National Educational Technology Forum (NETF) plays a pivotal role as a platform for the exchange of ideas on educational technology, providing guidance on its deployment, fostering innovation, and promoting research. The policy also highlights the importance of online and digital education, emphasizing the development of high-quality e-content, the integration of digital literacy into curricula, and the adoption of blended learning models that combine traditional and online methods. The SWAYAM platform, which provides Massive Open Online Courses (MOOCs) in multiple languages, further expands access to education, supporting skill development and lifelong learning across the nation.

India's education system has long been a cornerstone of its socio-economic development, crucial in shaping the nation's future. Over the years, the country has experienced significant shifts in its education policies, each reflecting the evolving priorities and challenges of the times. The National Policy on Education 1986 (NPE 1986) was a milestone in this journey, focusing on access, equality, and quality in education, particularly for marginalized communities. It laid the groundwork for expanding education across India. However, the educational landscape has since undergone a radical transformation, driven by technological advancements and the internet's proliferation. In response, NEP 2020 was introduced, marking a significant departure from previous policies by placing a strong emphasis on integrating technology and e-learning into the education system. This shift reflects not only technological progress but also the urgent need to equip students with the skills required to thrive in a rapidly evolving global economy.

Overview of the Evolution of Education Policies in India

The evolution of education policies in India can be traced back to the post-independence era, beginning with the first National Policy on Education in 1968. This policy aimed to standardize and regulate the education system across the country, addressing issues like language development, curriculum standardization, and the promotion of scientific temper. The 1968 policy laid the groundwork for a more unified and inclusive education system but was limited in its scope concerning the broader challenges of the time.

The National Policy on Education 1986 was a more comprehensive attempt to reform the Indian education system. It introduced significant changes aimed at universalizing primary education, expanding vocational education, and improving adult literacy. The policy was particularly notable for its emphasis on equity, aiming to reduce disparities in educational access and outcomes across different social groups. However, the implementation of

NPE 1986 faced several challenges, including inadequate infrastructure, limited resources, and resistance to change, particularly in rural areas.

The introduction of NEP 2020 marked a new chapter in India's educational journey. This policy is a response to the demands of the 21st century, emphasizing the need for an education system that is flexible, inclusive, and globally competitive. A central feature of NEP 2020 is its focus on technology and e-learning, which are seen as critical tools for expanding access to education, particularly in remote and underserved areas. The policy aims to create a more holistic education system that not only imparts knowledge but also fosters critical thinking, creativity, and lifelong learning.

Importance of Technology and E-Learning in Modern Education

Technology has become an integral part of modern education, offering new possibilities for teaching and learning. E-learning, in particular, has transformed the educational landscape by making learning more accessible, interactive, and personalized. It allows students to learn at their own pace, revisit challenging concepts, and engage with a wide range of multimedia resources that cater to different learning styles. Furthermore, e-learning platforms can reach students in remote areas where traditional educational infrastructure may be lacking, thereby democratizing access to education.

The integration of e-learning into education also has significant implications for inclusiveness and equity. Digital tools can be designed to accommodate students with disabilities, offering adaptive technologies that make learning more accessible to all. Moreover, e-learning provides opportunities for continuous professional development for teachers, enabling them to stay updated with the latest educational practices and technologies.

However, the adoption of e-learning also presents challenges, particularly in a country like India, where there is a significant digital divide. Issues such as access to devices, reliable internet connectivity, and digital literacy are critical barriers that need to be addressed to ensure that e-learning benefits all students, regardless of their socio-economic background.

Objectives of the Study

The primary objective of this study is to conduct a comparative analysis of the impact of e-learning on the National Education Policy 2020 and the National Policy on Education 1986. Specifically, the study aims to evaluate how e-learning has influenced the inclusiveness, accessibility, and quality of education under these two policies. By examining the similarities and differences between these policies, the study seeks to provide insights into the effectiveness of e-learning as a tool for educational reform in India.

Research Questions

To achieve these objectives, the study will address the following research questions:

1. How does e-learning influence the objectives and outcomes of NEP 2020 compared to NPE 1986?
2. What are the challenges and opportunities presented by e-learning under both policies?
3. How do the two policies differ in their approach to integrating technology and addressing the digital divide?
4. What lessons can be learned from the implementation of e-learning under NEP 2020 that could have been applied to NPE 1986, and vice versa?

This study will provide a comprehensive analysis of how e-learning has shaped and been shaped by India's educational policies, offering recommendations for future policy development in the digital age.

2. LITERATURE REVIEW

Historical Context of NPE 1986

The National Policy on Education (NPE) 1986 was a pivotal moment in the evolution of India's education system. Emerging at a time when India was grappling with numerous socio-economic challenges, the policy sought to address the disparities in educational access and quality across the country. NPE 1986 was designed to be comprehensive, covering various aspects of education from elementary to higher education, and placing a strong emphasis on ensuring equality and social justice. The policy was a response to the increasing recognition that education is crucial for national development and that significant reforms were necessary to meet the needs of a diverse and growing population.

Goals and Achievements

NPE 1986 aimed to achieve universalization of elementary education, improve the quality of education at all levels, and promote vocational education to meet the needs of the labor market. One of the significant achievements of NPE 1986 was the focus on strengthening the infrastructure for education in rural and underdeveloped areas. The policy also introduced programs to enhance adult education, reflecting the government's commitment to lifelong learning. Additionally, the establishment of Navodaya Vidyalayas was a direct outcome of NPE 1986, aimed at providing quality education to talented children from rural areas.

Another noteworthy achievement was the emphasis on social justice, which led to the introduction of various schemes and programs for the education of marginalized communities, including Scheduled Castes, Scheduled Tribes, and women. The policy's focus on equity was further underscored by the expansion of non-formal education and special provisions for children with disabilities.

Challenges Faced During Implementation

Despite its ambitious goals, NPE 1986 faced several challenges during its implementation. One of the primary obstacles was the lack of adequate financial resources. The ambitious nature of the policy required substantial investment in infrastructure, teacher training, and curriculum development, but these areas often suffered due to budget constraints. Additionally, the policy's implementation varied significantly across states, leading to disparities in educational outcomes. The rural-urban divide also posed a significant challenge, with rural areas lagging in access (Gupta, S., & Achuth, P., 2021). quality education and infrastructure. The emphasis on social justice, while commendable, was often undermined by deep-rooted societal inequalities, making it difficult to achieve the desired level of inclusivity. Furthermore, the policy's focus on vocational education did not fully translate into the creation of employment opportunities, limiting its impact on the labor market.

Development of NEP 2020

The National Education Policy (NEP) 2020 marks a significant departure from the approaches of previous policies, including NPE 1986. Developed in a rapidly changing global context, NEP 2020 is a forward-looking document that envisions an education system aligned with the needs of the 21st century. The policy is built on the foundation of accessibility, equity, quality, and accountability, with a strong emphasis on transforming the educational landscape through the integration of technology and e-learning.

Vision and Objectives

NEP 2020 is driven by the vision of creating an education system that contributes to an equitable and vibrant knowledge society by providing high-quality education to all. The policy's objectives include achieving 100% Gross Enrolment Ratio (GER) in school education by 2030, universalizing early childhood care and education, and transforming the curriculum and pedagogy to foster holistic development. Additionally, NEP 2020

Ratnartuh Mishra, Neeraj Kumar Tiwari, Sandeep Kumar Nayak, Ravindra Nath, Shankar K Lal, Priya Tewari, Khushboo Rawat, Arunesh Kumar Awasthi

emphasizes the importance of multidisciplinary and flexible education in higher education institutions, aiming to break down the rigid boundaries between different streams of study.

3. METHODOLOGY:

Integration of E-Learning and Technology

One of the standout features of NEP 2020 is its strong emphasis on the integration of technology in education. Recognizing the transformative potential of e-learning, the policy advocates for the development of a robust digital infrastructure to support online and blended learning models. NEP 2020 also proposes the creation of the National Educational Technology Forum (NETF), which will serve as a platform for the exchange of ideas on the use of technology to enhance learning.

The policy also underscores the need for digital literacy, computational thinking, and coding to be integrated into the curriculum from an early stage. This focus on e-learning is seen as essential for preparing students for the demands of the global digital economy and ensuring that education is inclusive and accessible to all, including those in remote and underserved areas.

Impact of E-Learning in Global Education Systems

E-learning offers several significant benefits, including increased accessibility, personalized learning, cost-effectiveness, and enhanced engagement. By breaking down geographical barriers, it enables students in remote and rural areas to access quality education and supports learners with disabilities through adaptive technologies. Personalized learning is enhanced through adaptive learning technologies that tailor educational experiences to individual needs and progress, while self-paced learning allows students to revisit challenging concepts and advance quickly through easier material. E-learning is also cost-effective, as digital platforms facilitate resource sharing, reducing the need for physical textbooks, and allowing scalability to reach large numbers of students. Furthermore, it enhances engagement and interactivity through multimedia content, such as videos and animations, and incorporates gamification elements to motivate and engage learners, making the learning experience more dynamic and effective.

E-learning has had a profound impact on education systems globally, with many countries embracing digital technologies to enhance learning outcomes. Countries like the United States, Finland, and South Korea have been at the forefront of integrating e-learning into their education systems, offering valuable lessons for other nations, including India

Comparative Studies from Other Countries

In the United States, the integration of technology in education has led to the widespread adoption of e-learning platforms, particularly in higher education. Online courses and Massive Open Online Courses (MOOCs) have democratized access to education, allowing students from around the world to participate in courses offered by prestigious institutions. Finland, known for its high-quality education system, has successfully integrated digital tools into classroom teaching, promoting a blended learning approach that combines traditional methods with modern technology.

South Korea, with its advanced technological infrastructure, has leveraged e-learning to ensure that students have access to high-quality educational resources regardless of their location. The country’s focus on digital literacy from an early age has also contributed to its students’ success in international assessments



Figure 1: Benefits of E-Learning

Lessons Learned and Best Practices

The experiences of these countries offer several lessons for India as it implements NEP 2020. First, the importance of building a robust digital infrastructure cannot be overstated. Access to reliable internet and digital devices is crucial for the success of e-learning initiatives. Second, teacher training and professional development are essential for effectively integrating technology into education. Teachers need to be equipped with the skills to use digital tools and platforms to enhance learning.

Finally, the success of e-learning depends on creating engaging and interactive content that is culturally relevant and accessible to all students. As India moves forward with NEP 2020, these lessons and best practices can guide the development of a more inclusive and effective education system that leverages the power of technology to meet the needs of the 21st century.

4. COMPARATIVE ANALYSIS OF NPE 1986 AND NEP 2020

Policy Framework and Objectives

The National Policy on Education (NPE) 1986 and the National Education Policy (NEP) 2020 are two landmark documents that reflect the evolving priorities and challenges of the Indian education system. The NPE 1986 was developed in a context where the focus was primarily on addressing the basic educational needs of the nation. The key objectives of NPE 1986 included achieving universal access to education, improving the quality of education, and promoting social integration and national development through education. This policy emphasized equity and aimed to reduce disparities in educational access and outcomes across different regions, social classes, and gender.

One of the core focus areas of NPE 1986 was the universalization of elementary education. The policy aimed to provide free and compulsory education to all children up to the age of 14, a goal that was seen as essential for achieving broader social and economic development. Additionally, the policy sought to strengthen the vocational education system to align educational outcomes with the needs of the labor market. This approach was intended to enhance the employability of graduates and support the country's economic growth.

In contrast, NEP 2020 represents a shift towards a more holistic and forward-looking approach to education. While it retains the focus on accessibility and quality, NEP 2020 also introduces new dimensions, such as the integration of technology and e-learning, to meet the demands of the 21st century. The policy envisions an education system that not only imparts knowledge but also fosters critical thinking, creativity, and digital literacy. The inclusion of technology in education is a defining feature of NEP 2020, which aims to bridge the digital divide and ensure that all students, regardless of their socio-economic background, have access to quality education.

Implementation Strategies

The implementation strategies of NPE 1986 and NEP 2020 reflect the differing educational contexts and challenges of their respective times. NPE 1986 primarily relied on traditional methods of learning, with a strong emphasis on classroom-based instruction and the expansion of physical infrastructure, such as schools and vocational training centers. The policy also focused on teacher training and curriculum development to improve the quality of education. However, the implementation of these strategies was often hampered by limited resources and regional disparities, which affected the uniformity of educational outcomes across the country.

The role of technology in education was minimal under NPE 1986, as the policy was developed at a time when digital tools and the internet were not widely available or integrated into the educational system. Consequently, the policy's implementation strategies centered around enhancing the existing traditional educational framework rather than exploring new methods of learning.

Ratnartuh Mishra, Neeraj Kumar Tiwari, Sandeep Kumar Nayak, Ravindra Nath, Shankar K Lal, Priya Tewari, Khushboo Rawat, Arunesh Kumar Awasthi

In contrast, NEP 2020 places a significant emphasis on the use of technology to transform education. The policy advocates for the expansion of e-learning platforms and initiatives, such as DIKSHA and SWAYAM, which provide digital content and online courses to students across the country. These platforms are designed to make education more accessible, especially for students in remote and underserved areas. NEP 2020 also proposes the establishment of the National Educational Technology Forum (NETF), which will serve as a platform for the exchange of ideas and best practices in the use of technology in education. **(Ministry of Human Resource Development, 2020)**

The implementation strategies under NEP 2020 include the development of digital infrastructure, the integration of digital literacy into the curriculum, and the promotion of blended learning models that combine online and offline instruction. **(Jebaraj, P. (2020, August 2).** These strategies aim to make education more flexible and personalized, allowing students to learn at their own pace and access resources that are tailored to their individual needs. The policy also emphasizes the importance of teacher training in the use of digital tools, ensuring that educators are equipped to facilitate technology-enhanced learning.

Impact on Educational Quality and Equity

The impact of NPE 1986 and NEP 2020 on educational quality and equity can be assessed by examining their effects on access to education and the inclusion of marginalized communities. NPE 1986 made significant strides in improving access to education, particularly in rural areas, by focusing on the expansion of schools and the provision of free and compulsory education. However, the quality of education in rural areas often lagged behind that in urban centers, due to disparities in infrastructure, teacher availability, and resources. **(Venkateshwarlu, B., 2021).**

Despite the policy's emphasis on equity, NPE 1986 faced challenges in achieving its goals of social justice and inclusivity. Marginalized communities, including Scheduled Castes, Scheduled Tribes, and women, continued to face barriers to education, such as social discrimination, economic constraints, and inadequate access to quality educational resources. The policy's reliance on traditional learning methods also limited the opportunities for these communities to benefit from innovative educational approaches that could have addressed their unique needs.

NEP 2020, with its focus on e-learning and technology, has the potential to significantly improve educational quality and equity. By leveraging digital platforms, the policy aims to reach students in remote and underserved areas, providing them with access to high-quality educational content that was previously unavailable. The use of technology also offers new opportunities for personalized learning, allowing students from diverse backgrounds to engage with content that is relevant to their cultural and linguistic contexts.

Furthermore, NEP 2020's emphasis on digital literacy and the inclusion of marginalized communities in the digital economy represents a critical step towards achieving greater equity in education. The policy's focus on creating a more inclusive education system is reflected in its initiatives to provide adaptive learning technologies for students with disabilities and to develop digital content in multiple languages to cater to India's diverse population.

In conclusion, while both NPE 1986 and NEP 2020 have made significant contributions to the Indian education system, NEP 2020's integration of technology and e-learning represents a transformative approach to addressing the challenges of quality and equity in education. By expanding access to digital resources and promoting inclusivity, NEP 2020 offers a vision for an education system that is better equipped to meet the needs of the 21st century.

5. IMPACT OF E-LEARNING ON NEP 2020

Digital Infrastructure and Accessibility

The National Education Policy (NEP) 2020 has placed significant emphasis on the expansion of digital

Ratnartuh Mishra, Neeraj Kumar Tiwari, Sandeep Kumar Nayak, Ravindra Nath, Shankar K Lal, Priya Tewari, Khushboo Rawat, Arunesh Kumar Awasthi

infrastructure to support the implementation of e-learning across the country. This shift is aimed at making education more accessible, particularly in a rapidly digitalizing world. One of the most notable initiatives under NEP 2020 is the development of platforms like DIKSHA (Digital Infrastructure for Knowledge Sharing) and SWAYAM, which offer a wide range of digital resources including video lectures, e-books, and online courses that are accessible to students and teachers nationwide. **(Government of India, 2020)** These platforms are designed to serve as comprehensive learning environments that can be accessed from anywhere, thus expanding the reach of education to students in remote and underserved areas.

However, the implementation of digital infrastructure faces significant challenges, especially in reaching remote and underserved regions of India. Many rural and marginalized areas lack reliable internet connectivity, which limits the effectiveness of e-learning initiatives. Moreover, the availability of digital devices such as computers, tablets, and smartphones remains uneven, with many students from disadvantaged backgrounds unable to afford the necessary technology. This digital divide poses a major challenge to the inclusiveness of e-learning and threatens to exacerbate existing educational inequalities. Addressing these challenges requires targeted investments in digital infrastructure, including the expansion of broadband networks to rural areas and initiatives to provide affordable devices to students in need.

Teacher Training and Professional Development

The introduction of e-learning under NEP 2020 has redefined the roles and responsibilities of educators. Teachers are no longer just facilitators of knowledge in a traditional classroom setting; they are now expected to integrate digital tools into their teaching methods, creating more interactive and engaging learning experiences for students. This transition requires significant changes in teacher training and professional development. NEP 2020 emphasizes the importance of equipping teachers with the necessary skills to navigate digital platforms, utilize e-learning resources effectively, and manage online classrooms.

Continuous professional development (CPD) has become a critical component of NEP 2020's strategy to enhance the quality of education. E-learning itself is being used as a tool for CPD, providing teachers with access to online training modules, webinars, and communities of practice where they can share experiences and learn from each other. These digital platforms offer flexible learning opportunities that teachers can access at their convenience, allowing them to stay updated with the latest educational technologies and pedagogical strategies. However, the effectiveness of these CPD programs depends on the quality of the content provided and the extent to which it is contextualized to the specific needs of teachers working in diverse educational environments.

Student Engagement and Learning Outcomes

The impact of e-learning on student engagement and learning outcomes is a critical area of focus under NEP 2020. E-learning environments offer several advantages, such as the ability to access a wealth of digital resources, the flexibility to learn at one's own pace, and the opportunity to engage with interactive content. These features have the potential to enhance student engagement and improve learning outcomes. However, there are also significant challenges associated with maintaining student engagement in a digital learning environment. **(Analysis of the Indian National Education Policy 2020)**

One of the main challenges is the lack of face-to-face interaction, which can lead to feelings of isolation and reduce motivation among students. Additionally, the absence of a structured classroom environment can make it difficult for students to stay disciplined and focused on their studies. These issues are particularly pronounced among younger students who may require more guidance and support from teachers. Comparative performance analyses have shown mixed results, with some students thriving in e-learning environments while others struggle to keep up. The effectiveness of e-learning, therefore, depends on a range of factors, including the quality of the digital content, the level of teacher support, and the individual learning styles of students.

Inclusion and Equity

NEP 2020 recognizes the importance of inclusion and equity in education, particularly in the context of e-learning. The policy outlines special provisions for disadvantaged groups, including students from economically weaker sections, rural areas, and marginalized communities. These provisions include initiatives to provide digital devices and internet connectivity to students in need, as well as the development of adaptive learning technologies for students with disabilities. The goal is to ensure that all students, regardless of their background, have equal access to quality education.

Bridging the digital divide is a key priority under NEP 2020. The policy emphasizes the need to address the disparities in access to digital resources that exist between urban and rural areas, as well as between different socio-economic groups. This involves not only expanding digital infrastructure but also creating content that is culturally and linguistically relevant to students from diverse backgrounds. Moreover, NEP 2020 encourages the use of multiple languages in digital content to cater to India's linguistic diversity, thereby promoting inclusiveness in e-learning. **(New Education Policy 2020)**

In conclusion, the impact of e-learning on NEP 2020 is multifaceted, involving the expansion of digital infrastructure, the redefinition of teacher roles, the challenges of maintaining student engagement, and the pursuit of greater inclusion and equity. While the integration of e-learning presents significant opportunities for transforming education in India, it also requires careful planning and targeted interventions to ensure that the benefits of digital learning are accessible to all. By addressing the challenges and leveraging the potential of e-learning, NEP 2020 aims to create an education system that is more inclusive, equitable, and responsive to the needs of the 21st century.

6. IMPACT OF E-LEARNING ON NPE 1986

Traditional Education Methods

The National Policy on Education (NPE) 1986 primarily emphasized traditional education methods, focusing on teacher-led instruction in physical classrooms. The policy was designed at a time when technology played a minimal role in education, and the teaching-learning process relied heavily on conventional methods such as lectures, blackboards, and textbooks. The absence of digital tools meant that the entire educational experience was centered around the teacher as the primary source of knowledge, with limited opportunities for interactive or personalized learning. (Gupta, A. 2022.)

This reliance on traditional methods had several implications. While it ensured a uniform teaching approach across the country, it also meant that education was largely passive, with students receiving information rather than engaging with it. The infrastructure was focused on creating and maintaining physical spaces for learning, such as classrooms, libraries, and laboratories, which were crucial but often limited in their ability to adapt to different learning styles and needs. The lack of technological integration meant that there was little scope for enhancing the learning experience through multimedia content or for supporting students who might benefit from more varied instructional methods.

Challenges of Integrating Technology

During the 1980s and 1990s, there were early attempts to introduce technology into the education system, but these efforts faced significant challenges. The limited availability of computers and other digital tools, combined with the high costs associated with acquiring and maintaining such technology, made it difficult for many schools to integrate these resources into their teaching practices. Furthermore, the infrastructure needed to support digital learning, such as reliable electricity and internet connectivity, was largely underdeveloped, especially in rural areas.

Ratnartuh Mishra, Neeraj Kumar Tiwari, Sandeep Kumar Nayak, Ravindra Nath, Shankar K Lal, Priya Tewari, Khushboo Rawat, Arunesh Kumar Awasthi

Another major barrier to technology adoption during this period was the lack of training and support for teachers. Educators were not prepared to incorporate digital tools into their teaching, and professional development opportunities in this area were scarce. As a result, even when technology was available, it was often underutilized or used ineffectively. Additionally, there was a general lack of awareness and understanding of the potential benefits of e-learning, both among educators and policymakers, which hindered the broader adoption of these tools in the educational system.

These challenges meant that the integration of technology into the education system remained sporadic and largely limited to a few well-resourced schools. The focus continued to be on traditional, teacher-centered methods, with little emphasis on creating a more dynamic and interactive learning environment that could cater to diverse student needs.

Comparison with NEP 2020

In contrast to NPE 1986, the National Education Policy (NEP) 2020 represents a significant shift in the approach to integrating technology into education. The lessons learned from the limitations of NPE 1986 have informed the development of NEP 2020, which places a strong emphasis on the role of technology and e-learning in modern education. NEP 2020 addresses many of the challenges that hindered the adoption of technology under NPE 1986 by advocating for the development of robust digital infrastructure, widespread teacher training, and the creation of accessible, high-quality digital content.

NEP 2020 acknowledges the shortcomings of previous policies and recognizes the importance of adapting to the technological advancements that have transformed the educational landscape globally. It promotes a more flexible and inclusive education system that leverages e-learning to enhance accessibility, improve learning outcomes, and ensure that education is more responsive to the needs of the 21st century. By building on the experiences of NPE 1986, NEP 2020 aims to create a more equitable and dynamic educational environment that can better serve the diverse population of India.

7. COMPARATIVE STUDY BETWEEN NEP 2020 & NPE 1986:

The National Education Policy (NEP) 2020 and National Policy on Education (NPE) 1986 present distinct frameworks for India's education system. NEP 2020, released by the Indian Ministry of Education, aims to overhaul the education structure with a 5+3+3+4 model, compared to NPE 1986's 10+2 format. NEP 2020 emphasizes early childhood education and a broader academic structure, while NPE 1986 focused on a more rigid separation between different education streams like arts, commerce, and science. The NEP 2020 also pushes for technology integration, introducing e-learning platforms and digital resources, which were minimal in NPE 1986 (Roy, I. 2019).

The Gross Enrolment Ratio (GER) target has significantly increased from 26.3% under NPE 1986 to 50% by 2035 under NEP 2020. NEP 2020's assessment model emphasizes skills and knowledge, with more flexible board exams and a comprehensive 360-degree report card system, whereas NPE 1986 relied heavily on memorization and annual exams. (Dhoke, B. R., 2021).

Both policies aim to increase public investment in education, with NEP 2020 targeting 6% of GDP compared to NPE 1986's 4.5%. The NEP 2020 also introduces a student-teacher ratio (PTR) of less than 30:1, a marked improvement from NPE 1986's guidelines. Furthermore, NEP 2020 discontinues the MPhil program, focusing instead on research-oriented undergraduate and postgraduate degrees. The controlling authority has also been streamlined under NEP 2020, with the Higher Education Council of India (HECI) overseeing higher education, unlike the multiple regulatory bodies under NPE 1986. (Shubhada, M. R., & Niranth, M. R. 2021).

Table-1: Comparative Analysis of NEP2020 and NPE1986 basis of different dimensions

DIMENSIONS	NEP 2020	NPE 1986
Released By	New Education Policy 2020 was announced on 29 July 2020 by the Indian Ministry of Education, demonstrating the vision of the new education system in India.	Ministry of Education, Government of India, NPE 1986 Established by the Government of India to encourage and control education in India.
GER Ratio	Gross Enrolment Ratio -50% (2035), NEP 2020 aims for a total enrollment of 50% in school education in the next 10 years and envisions a universal education from pre-school to secondary education.	Gross Enrolment Ratio (GER)-26.3% (2018), NPE 1986 targets 26.3% in higher education on 2018.
Academic Structure	5 +3 + 3 + 4 model, NEP 2020 announces the adoption of the 5 + 3 + 3 + 4 model, which includes a solid basis of, Early Childhood Care and Education (ECCE) from the age of 3 to promote full education, development, and well-being. - structure. (Nandini, 2020, July 29).	10+2 format, By announcing the 10+2+3 model in 1986, NPE showed that primary school should include 5 years and 3 years of high school, followed by 2 years of high school, and endeavored to include the +2 level in the high school level. School education became widespread throughout the country.
Age Break	Age breakdown: 3-8, 8-11, 11-14, 14-18, NEP 2020, basic (3 years to 8 years), preparatory level (8 to 11 years), intermediate (11 to 14 years), and intermediate level (14 to 18 years).	NPE 1986 envisages a common educational structure where the first 10 years followed school education, the next 2 years followed higher secondary education & next 3 years followed university education.
Languages	NEP 2020 in 3 languages - states, regions, and students' choice we recommend 3 language formulas, first mother tongue or regional language and second in Hindi spoken in the country, keep in mind, based on previous facts other modern Hindi will be NPE 1986 board held once in September based on memorization test and adaptation to continuous evaluation and assessment system. Language or English, and third English or Modern Hindi in Indian speaking countries.	NPE 1986 states Language formulation that schools must teach Hindi, English, and One modern Indian Language.
Stream Separation	There is no clear distinction between art, commerce, and science. All this will be integrated into the curriculum, NEP 2020 declares that there will no longer be a strict distinction between technical and technical education and curriculum and extracurricular courses in schools and higher education, which will follow different paths.	Hard separation- Art, Commerce, Science, NPE 1986 announced a hard separation between Art, Science & Commerce. (Thakur, P., & Kumar, R. 2021).

Board Exam	<ul style="list-style-type: none"> Based on core competencies students are allowed to take the exam twice a year, NEP 2020 announced that board exams will be "simplified" and grade 10 and 12 board exams will be more skills and knowledge focused. Education will be 12 years of education which NEP 2020 explains will be 12 years of education, 3 of which are Anganwadi. 	<ul style="list-style-type: none"> Based on memorizing, facts used to be held once a year, the NPE 1986 board exam is based on memorizing and adapting to continuous evaluation and grading system. The elementary system comprising 5years of NPE 1986 announced an Elementary system
School Education	Anganwadi/Preprimary	Elementary school, 3 years high school and 2 years high school.
Report Card	To be reviewed by teachers, classmates and students, the NEP 2020 restructuring card is a comprehensive, 360-degree, highly descriptive map of each student's progress and gaps in learning, thinking, and psychomotor areas. Progress reports may include self-assessment, peer review, and teacher assessment.	Report card to have reviewed by teachers in NPE 1986, report cards were only reviewed by teachers.
Percent of GDP	In NEP-2020, Education sector to get 6 percentage of the total Gross Domestic Product (GDP) of India, New Education Policy 2020 has set the target to rise public investment in the education sector to range 6% of the Gross Domestic Product (GDP) at the initial.	In NEP-1986, Education accounts for 4.5 percentage of the total Gross Domestic Product (GDP) of India, NPE 1986 declared education sector gets 4.5% of the Gross Domestic Product (GDP).
-Courses	E-curriculum will be established in regional languages, computer-generated laboratories will be created and established new forum for emerging new trends of education that is National Educational Technologies Forum (NETF), NEP 2020 will focus on the use of technology in education. E-content will be developed in 8 regional languages - Gujarati, Tamil, Telugu, Kannada, Malayalam, Marathi, Bengali and Oriya. (New Education Policy 2020)	NPE 1986 Integrating computer-education modules into first-level vocational and general education courses and providing computer facilities to these institutions, started in the 7th Plan, completed by 1995.
PTR	A student-teacher ratio (PTR) of less than 30:1 will be provided at each school level; NEP 2020 says no more than 30 students	Primary school PTR must be 30:1, primary school must be 35:1, NPE 1986 requires primary school PTR to be 30:1,

	in one class. many students who are disadvantaged socio-economically target PTR less than 25:1.(Chopra, R. 2020, August 2).	primary school 35:1.
Test Conducted by	National Examination Authority (NTA) – will conduct exams and tests in science, humanities, languages, arts and specialties, NEP 2020 has announced that the National Examinations Authority (NTA) will conduct public entrance examinations for admission to all universities. and college for a bachelor's degree. (Sundaram, M. 2020).	The national inspection framework will be based on guidelines for referral laboratories and laboratories will be free to develop new procedures and adjust procedures specifically to the case, NPE 1986 by the Ministry of Education to frame the National Examination Reform while at the same time. State level bodies including UGC, NCERT, AICTE and Board of Secondary Education, created inter-departmental committees with organizational representatives.
Credit Scoring	Incomplete courses have multiple entry and exit options. Loans will be transferred through Academic Bank Loans (ABC), NEP 2020 announced ABC is a virtual database containing information on the loans a student has taken during their studies, will allow students to open an account with various options to log in. interior and exterior. College or university. (Sharma, D. P. 2020, May 25)	Nothing said about Credit Scoring, the NPE 1986 does not say about credit scoring.
Aims of Higher Education	Nothing said about Credit Scoring, the NPE 1986 does not say about credit scoring. New Education Policy (NEP) 2020, the government has advised that the MPhil program should be discontinued. NEP 2020 declared The MPhil program is discontinued for the more research-oriented undergraduate and master's degrees and said A doctorate can be pursued after a Master's. (Shukla, A. 2020, July 29).	The main objective of the 1986 National Education Policy and 1992 Action Program is to create a national education system that caters to all students regardless of nationality; creed, caste and religion are available to get quality education comparable to NPE 1986, UGC, NCERT, NIEPA, AICTE, ICAR, IMC etc. advising institutions of national importance to strengthen their national character. education system and meet the emerging demands of the nation.
MPhil Degree	New Education Policy (NEP) 2020, the government has advised that the MPhil program should be discontinued. NEP 2020 declared The MPhil program is discontinued for the more research-oriented undergraduate and master's degrees and said A doctorate can be pursued after a Master's.	PE 1986 recommended that MPhil be a short research program for students, providing them with more study options as well as research work.
Controlling Authority	Governing Body – HECI (Higher Education Council of India), except	Regulatory Bodies:

	<p>Medicine and Law. It is separated into four categories: (Jebaraj, P. 2020, August 2)</p> <ol style="list-style-type: none"> 1. Management: National Higher Education Regulatory Board (NHERC) 2. Sets Standards: General Education Commission (GEC) 3. Funding: Higher Education Grants (HEGC), 4. Evaluation: National recognition Accreditation Council (NAC) 	<ol style="list-style-type: none"> 1. Regulatory University: University Grants Commission (UGC), 2. Technology: All India Council for Technical Education (AICTE)), 3. Agriculture: The Indian Council of Agricultural Research (ICAR) 4. Rules of Legal Education: (BCI) Bar Council of India 5. Medical: Central Council of Indian Medicine 6. Commerce and Account: The Institute of Chartered Accountants of India (ICAI) and The Institute of Company Secretaries (ICSI) 7. Bords: Indian School Certificate (ISC), Central Board of Secondary Education (CBSE), National Council of Educational Research and Training (NCERT) and States Boards
--	---	---

8. CHALLENGES AND OPPORTUNITIES IN E-LEARNING

Technological Barriers

One of the most significant challenges in implementing e-learning, particularly in a diverse and vast country like India, is the issue of infrastructure and connectivity. While NEP 2020 has made strides in advocating for digital learning, the reality remains that many areas, especially rural and remote regions, still lack the necessary infrastructure. Reliable internet connectivity, a cornerstone of effective e-learning, is often inconsistent or completely unavailable in these areas. Additionally, even where internet access exists, the speed and bandwidth are often insufficient to support high-quality e-learning experiences, such as video lectures, interactive content, or real-time online assessments.

Another barrier is the disparity in access to digital devices. While urban students may have access to computers, tablets, and smartphones, many students in rural areas or from economically disadvantaged backgrounds do not. This digital divide creates a significant challenge in ensuring equitable access to e-learning opportunities, potentially widening the gap between different socio-economic groups.

Digital literacy among teachers and students presents another challenge. Many educators, especially those who have spent most of their careers in traditional classroom settings, may not be fully equipped to use digital tools effectively. This lack of proficiency can lead to suboptimal use of e-learning platforms, undermining the potential benefits of digital education. Students, particularly younger ones, may also struggle with navigating online learning environments without sufficient guidance and support. Addressing these issues requires comprehensive training programs and ongoing support to ensure that both teachers and students can fully engage with and benefit from e-learning.

Opportunities for Innovation

Despite these challenges, e-learning presents immense opportunities for innovation in education. One of the most promising aspects of digital learning is its potential for personalized education. Unlike traditional methods, e-learning platforms can adapt to the individual needs of students, offering customized content based on their

progress and learning style. This adaptability allows students to learn at their own pace, revisiting difficult concepts and moving quickly through areas they find easier, thus optimizing their learning experience.

The integration of Artificial Intelligence (AI) and Machine Learning (ML) into e-learning platforms further enhances this potential. AI-driven tools can analyze vast amounts of data on student performance to identify learning gaps and provide tailored recommendations. For instance, AI can help in creating personalized study plans, offering targeted exercises, or suggesting additional resources based on a student's weaknesses. These technologies also enable more sophisticated assessment methods, allowing for real-time feedback and more accurate measurement of student learning outcomes. Moreover, AI and ML can support teachers by automating administrative tasks, such as grading, thereby freeing up more time for them to focus on instructional activities and student interaction.

CONCLUSION AND RECOMMENDATIONS

Looking ahead, several trends are likely to shape the future of e-learning in India. With the continuous advancement of technology, the adoption of e-learning is expected to grow, with more schools and universities incorporating digital platforms into their curricula. Hybrid models that blend traditional classroom learning with online education are likely to become more prevalent, offering the flexibility of e-learning while retaining the benefits of in-person interaction.

Additionally, the use of emerging technologies such as Virtual Reality (VR) and Augmented Reality (AR) in education could revolutionize how subjects are taught. These technologies can create immersive learning experiences that bring complex concepts to life, making education more engaging and accessible to students of all ages. The adoption of blockchain technology for secure and transparent credentialing is another area with potential implications for the future of education.

As these trends unfold, they will likely have a profound impact on future education policies. Policymakers will need to address issues such as digital equity, data privacy, and the ethical use of AI in education. The experiences of implementing e-learning under NEP 2020 will provide valuable lessons for shaping these future policies, ensuring that they are responsive to the needs of a rapidly changing educational landscape.

In conclusion, while e-learning presents several challenges, particularly in terms of infrastructure, connectivity, and digital literacy, it also offers significant opportunities for innovation and the enhancement of education in India. By addressing these challenges and leveraging the potential of new technologies, e-learning can play a crucial role in creating a more inclusive, flexible, and effective education system for the future.

5. REFERENCES:

1. Dhoke, B. R. (2021). Comparative study of old (1986) and new (2020) National Education Policy. **International Multidisciplinary Journal**, 7(2), 1-15.
2. Gupta, A. (2022). Critical analysis of NPE-1986 and NEP-2020. **International Journal of Science and Research (IJSR)**, 11(4), 148-155.
3. Gupta, S., & Achuth, P. (2021). National education policies of India: A comparative study concerning higher education. **Hans Shodh Sudha**, 1(3), 20-27.
4. Roy, I. (2019). A comparative study of national educational policies. **Journal of Advances and Scholarly Researches in Allied Education**, 16(6), 2757-2757.
5. Shubhada, M. R., & Niranth, M. R. (2021). New education policy 2020: A comparative analysis with existing National Policy of Education 1986. **International Journal of Research and Analytical Reviews**, 8(2), 665-675.

6. Sundaram, M. (2020). National Education Policy 1986 vs National Education Policy 2020 – A comparative study. **International Conference on Advancements in Management, Engineering, and Technology (ICAMET 2020)**, 2(10).
7. Thakur, P., & Kumar, R. (2021). Educational policies: Comparative analysis of national education policies of India and challenges. **International Journal of Multidisciplinary Educational Research**, 10(3), 1316.

1.1. Appendices

8. Government of India, Ministry of Human Resource Development. (2020). **National Policy on Education 2020**.
9. Venkateshwarlu, B. (2021). A critical study of NEP 2020: Issues, approaches, challenges, opportunities, and criticism. *Peer-Reviewed and Refereed Journal*, 10(2[5]), February.
10. Analysis of the Indian National Education Policy 2020 towards achieving its objectives. (2020). Retrieved from https://www.researchgate.net/publication/343769198_Analysis_of_the_Indian_National_Education_Policy_2020_towards_Achieving_its_Objectives
11. National Education Policy 2020. (2020). Retrieved from https://www.mhrd.gov.in/sites/upload_files/mhrd/files/nep/NEP_Final_English.pdf
12. Vaishale, B. A., & SOEL, Chennai. (n.d.). Critical analysis of the Education Policy 2020 in India. Retrieved from <http://www.probono-india.in/blog-detail.php?id=207>
13. New Education Policy 2020 highlights: School and higher education major changes. (2020, July 30). *Hindustan Times*. Retrieved from <https://www.hindustantimes.com/education/new-education-policy-2020-live-updates-important-takeaways/story-yYm1QaeNyFW4uTTU3g9bJO.html>
14. NEP 2020: Implementation of New Education Policy in our education system. (2020, October 22). *Hindustan Times*. Retrieved from <https://www.hindustantimes.com/education/nep-2020-implementation-of-new-education-policy-in-our-education-system/story-bw4OiekFCamI7NPoNkgAoJ.html>
15. Nandini. (2020, July 29). New Education Policy 2020 highlights: School and higher education to see major changes. *Hindustan Times*.
16. Jebaraj, P. (2020, August 2). The Hindu explains: What has the National Education Policy 2020 proposed? *The Hindu*. ISSN 0971-751X.
17. Chopra, R. (2020, August 2). Explained: Reading the new National Education Policy 2020. *The Indian Express*.
18. Shukla, A. (2020, July 29). New Education Policy 2020: NEP moots professional standards for teachers. *Hindustan Times*.
19. Sharma, D. P. (2020, May 25). The challenges in the Indian education system. *Eduvoice: The Voice of Education Industry*.
20. Ministry of Human Resource Development. (2020). *Final National Education Policy 2020* (PDF report).